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4

NAVAL INVESTIGATION

HEARINGS

BEFORE THE

435
24-

SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS UNITED STATES SENATE

SIXTY-SIXTH CONGRESS
SECOND SESSION

IN TWO VOLUMES

Vol. 2

Printed for the use of the Committee on Naval Affairs



WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

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II

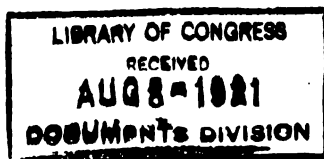


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NAVAL INVESTIGATION.

THURSDAY, APRIL 29, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in room 235, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Keyes, Pittman, and Trammell.

STATEMENT OF REAR ADMIRAL JOSIAH S. McKEAN—Resumed.

The CHAIRMAN. The committee will come to order. Admiral McKean, will you proceed?

Admiral McKEAN. Senator, I have here, brought at the request of the Acting Chief of Operations, Capt. Hutchins, this large table which contains in this form the information from the records that you asked for yesterday. There may be some slight errors in this tabulation, but that is the whole matter in reply to your inquiry. I am surprised that they got it out as rapidly as they did. That was a big job.

(The table referred to is here printed in full in the record as follows:)

1697

Battleships.

Name of ship.	Paragraph I.					Paragraph II.				
	A.	B.	C.	D.	E.	A.	B.	C.	D.	
Officers.					Men.					
Line.	Reserve.	Staff.	War-rant.		Full com-mission.	Lynnhaven Roads, Va.				
Arizona.....	Full commission.	Navy Yard, N. Y.....	62	1,200	109	100	91	93	1,200	
Arkansas.....	do.....	Hampton Roads, Va.....		1,200	103	100	100	72	1,200	
Delaware.....	do.....	Guantanamo, Cuba.....		1,250	100	100	91	76	1,250	
Florida.....	do.....	do.....		1,000	100	100	100	67	1,000	
Michigan.....	do.....	do.....		800	97	100	91	68	800	
Nevada.....	do.....	do.....	26	1,000	106	100	100	86	1,000	
New York.....	Full commission.	do.....		1,000	97	100	109	82	1,000	
North Dakota.....	Reserve.....	New York; Norfolk.....	92	1,000	9	33	91	27	1,000	
Oklahoma.....	Full commission.	Guantanamo, Cuba.....		1,000	103	100	91	85	1,000	
Pennsylvania.....	do.....	do.....		1,200	106	100	118	100	1,200	
South Carolina.....	do.....	Guayama-yabo Bay.....		800	94	67	91	66	800	
Texas.....	do.....	Guantanamo, Cuba.....		1,000	103	100	91	87	1,000	
Utah.....	do.....	do.....		1,000	97	100	91	59	1,000	
Wyoming.....	do.....	do.....		1,200	100	100	109	86	1,200	
Connecticut.....	do.....	Off Cape Cruz, Cuba.....		1,200	107	100	100	80	1,200	
Alabama.....	Reserve.....	New York; Philadelphia.....	60	240	88	33	100	34	240	
Rhode Island.....	do.....	New York; Boston.....	34	1,240	20	33	73	29	1,240	
Georgia.....	do.....	do.....	166	1,240	15	33	73	25	1,240	
Illinois.....	do.....	Vera Cruz, Mexico.....	89	240	113	100	100	57	240	
Indiana.....	Out of commission	New York; Philadelphia.....	40							
Iowa.....	do.....	do.....	27							
Massachusetts.....	do.....	do.....	33							
Kansas.....	Reserve.....	do.....	135	1,200	15	33	64	35	1,200	
Kearsarge.....	do.....	New York; Boston.....	84	840	63	33	88	36	840	
Kentucky.....	do.....	New York, N. Y.....	93	852	88	67	125	34	852	
Louisiana.....	do.....	New York; Norfolk.....	47	1,200	26	67	73	39	1,200	
Maine.....	do.....	Savannah, Ga.....	30	240	35	67	73	50	240	

Minnesota.....	do.....	New York; Philadel- phia.....	63	1,200	29	.....	67	73	39	do.....	Base No. 1.....	1,200
Missouri.....	do.....	do.....	95	240	9	.....	33	55	29	do.....	New York; Philadel- phia.....	240
Nebraska.....	do.....	New York; Boston.....	72	1,240	15	.....	67	73	29	do.....	New York; Boston.....	1,240
New Hampshire.....	do.....	Guantanamo, Cuba.....	109	1,200	33	.....	67	82	52	do.....	New York; Norfolk.....	1,200
New Jersey.....	do.....	New York, N. Y.....	65	1,240	22	.....	67	64	33	do.....	New York, N. Y.....	1,240
Ohio.....	do.....	New York; Philadel- phia.....	60	240	13	.....	33	73	35	Full com- mission.....	New York; Philadel- phia.....	240
Oregon.....	do.....	San Diego, Calif.....	39	987	63	.....	67	75	39	Reserve.....	New York; Mare Island.....	987
Vermont.....	do.....	Haiti, West Indies.....	143	1,200	29	.....	67	83	51	do.....	New York; Philadel- phia.....	1,200
Virginia.....	do.....	New York; Boston.....	208	1,240	22	.....	33	73	30	do.....	New York; Boston.....	1,240
Wisconsin.....	do.....	New York; Philadel- phia.....	43	240	38	.....	33	100	27	do.....	New York; Philadel- phia.....	240

Battleships—Continued.

Name of ship.	Paragraph II—Continued.					Paragraph III.			Paragraph IV.		
	E.					A.	B.	C.		D.	
	Officers.									Officers.	Men.
	Line.	Reserve.	Staff.	War-rant.	Men.						
Arizona.....	106		100	91	87				December, 1917	January, 1918	142
Arkansas.....	100	20	100	100	86				November, 1917	December, 1917	2,400
Delaware.....	106		100	91	81				August, 1918	October, 1917	2,500
Florida.....	128		100	100	72					do.	2,000
Michigan.....	100		100	91	72				January, 1918	July, 1917	1,600
Nevada.....	106		100	100	88				do.	January, 1918	113
New York.....	106	20	100	109	96	July 1, 1918	Sept. 30, 1918	New York, N. Y.	October, 1917	October, 1917	2,000
North Dakota.....	71		67	91	55				do.	do.	121
Oklahoma.....	100		100	91	90				February, 1918	November, 1917	1,600
Pennsylvania.....	106		100	109	100				October, 1917	March, 1917	142
South Carolina.....	103		100	91	74				December, 1917	May, 1917	1,000
Texas.....	106	20	100	91	86				February, 1918	October, 1917	121
Utah.....	106		100	91	70				February, 1918	December, 1917	2,000
Wyoming.....	95		100	100	91				October, 1917	November, 1917	2,400
Connecticut.....	111		100	100	82				February, 1918	July, 1917	2,400
Alabama.....	150		67	100	63				May, 1918	August, 1917	428
Rhode Island.....	52		67	91	53	Dec. 20, 1915	July 16, 1917	New York; Boston.	do.	September, 1917	2,480
Georgia.....	22		100	91	53	Mar. 13, 1917	June 10, 1917	New York, N. Y.	May, 1918	do.	2,480
Illinois.....	150	5	100	100	(7)		Oct. 1, 1917	New York; Philadelphia.	July, 1918	(1)	428
Indiana.....							do.	do.	(1)	(1)	2,908
Iowa.....							Oct. 9, 1917	do.	(1)	(1)	2,908
Massachusetts.....	49		67	73	50	Sept. 30, 1916	July 9, 1917	New York; Boston.	February, 1918	September, 1917	2,400
Kansas.....	25		67	100	37	Oct. 15, 1916	Apr. 25, 1917	New York; Boston.	April, 1918	November, 1917	1,628
Kearse.....	25	17	67	100	31	Jan. 1, 1917	Apr. 29, 1917	New York, N. Y.	do.	do.	1,618
Kentucky.....	52		100	91	65				February, 1918	August, 1917	2,400
Louisiana.....	39		67	73	53	Apr. 1, 1917	Aug. 1, 1917	New York, N. Y.	April, 1918	September, 1917	2,480
Maine.....	55		67	82	61				February, 1918	August, 1917	2,400
Minnesota.....	9	20	67	73	52	Aug. 30, 1916	May 6, 1917	New York; Philadelphia.	July, 1918	September, 1917	2,480
Missouri.....	49	9	67	82	30	Oct. 24, 1916	Apr. 13, 1917	New York; Boston.	February, 1918	September, 1917	2,480
Nebraska.....	55		67	82	51	July 10, 1917	Mar. 23, 1917	New York; Norfolk.	do.	January, 1918	2,480
New Hampshire.....	49		100	91	35		Apr. 29, 1917	New York, N. Y.	do.	September, 1917	2,480
New Jersey.....	49	50	67	73	36	May 6, 1917	May 6, 1917	New York; Philadelphia.	do.	October, 1917	2,480
Ohio.....	9		67	73	36	Apr. 7, 1919	Apr. 7, 1919	New York; Philadelphia.	May, 1918	do.	480
Oregon.....	63		67	88	38	Aug. 25, 1917	Apr. 4, 1917	New York; Mare Island.	February, 1918	do.	1,916
Vermont.....	44		67	82	50	Sept. 12, 1916	Aug. 27, 1917	New York; Philadelphia.	March, 1918	(1)	2,400
Virginia.....	91		67	91	52	Aug. 30, 1916	May 6, 1917	New York; Boston.	April, 1918	do.	2,400
Wisconsin.....	38		67	100	52				February, 1918	do.	2,480

1 Had on board 20 to 40 per cent of fellows?

1. Had on board 20 to 40 per cent of allowed complement.

Cruisers.

Name of cruiser.	Paragraph V.					Paragraph VI.		
	A.	B.	C.	D.	E.	A.	B.	C.
					Officers.			
					Re- serve.	Staff.	War- rant.	Men.
					Line.			
Pueblo.	Reserve.	San Francisco.		600	33	67	73	79
Frederick.	do.	Navy yard, Puget Sound.	33	600	38	67	82	43
North Carolina.	do.	Navy yard, Portsmouth.	63	360	23	67	73	40
Huntington.	do.	San Diego, Calif.	87	600	33	67	82	56
San Diego.	Full commission.	do.	72	600	95	100	100	100
South Dakota.	Reserve.	Navy yard, Puget Sound.	84	600	33	67	73	50
Montana.	Full commission.	Guacayaabo Bay.		300	45	100	100	52
Pittsburgh.	Reserve.	Puget Sound.	20	600	38	67	73	44
Seattle.	Full commission.	Guantanamo Bay.		360	64	100	91	73
Charleston.	Reserve.	Porto Bello, Panama.		2,800	27	67	67	49
St. Louis.	do.	Honolulu, Hawaii.		2,800	27	100	44	36
Rochester.	do.	Puget Sound.	75	600	21	67	100	42
Brooklyn.	Full commission.	Manila, P. I.		816	22		113	95
Chicago.	Reserve.	New York; Philadelphia.		1,065	22		33	38
Minneapolis.	Out of commission.	do.						
Columbia.	Full commission.	Warrington, Fla.	38	600	43	67	89	89
Marblehead.	Reserve.	Puget Sound.		100	100		100	19
Montgomery.	do.	Guaymas, Mexico.		2,500	58	100	80	60
New Orleans.	Out of commission.	New York; Boston.	106					
Salem.	Full commission.	New York; Puget Sound.	28	2,500	77	100	20	90
Albany.	Reserve.	New York; N. Y.	80	500	20	35	120	52
Birmingham.	do.	New York; Boston.	33	500	20	50	60	35
Chester.	Ordinary.	New York; Mare Island.	28		11			
Cleveland.	Full commission.	Shanghai, China.		1,500	77	100	20	62
Chittanooga.	do.	New York; Mare Island.	58	2,000	89	100	20	94
Denver.	do.	Nicaragua.		2,000	89	100	20	98
Des Moines.	do.	Alexandria, Egypt.		2,000	73	100	25	94
Galveston.	do.	Manila, P. I.		1,980	73	100	25	90
Boston.	Out of commission.			(1)				
Olympia.	Full commission.	Santo Domingo.		2,520	86	100	88	98
Raleigh.	do.	Salina Cruz, Mexico.		1,600	100	100	20	98
Tacoma.	do.	Tampico, Mexico.		2,000	73	100	25	98

Cruisers—Continued.

Name of cruiser.	Paragraph VI—Continued.					Paragraph VII.				Para- graph VIII.	
	D.	E.				A.	B.	C.	D.		
		Officers.							Officers.		Men.
		Line. serve.	Re- serve.	Staff.	War- rant.						
Pueblo.....	600	57		67	73				January, 1918.	May, 1917.	1,200
Fredrick.....	600	57		67	82			Portsmouth.	do.	August, 1917.	1,200
North Carolina.....	360	23		67	91			Oct. 20, 1916.	May 5, 1917.	September, 1917.	1,080
Huntington.....	600	52		67	82			Feb. 10, 1917.	May 11, 1917.	May, 1917.	1,200
San Diego.....	600	43		67	73			Feb. 16, 1917.	May 28, 1917.	September, 1917.	1,200
South Dakota.....	600	48		67	82			Nov. 29, 1916.	Apr. 12, 1917.	January, 1918.	1,200
Montana.....	360	45		100	100					do.	1,080
Pittsburgh.....	600	90		100	100					October, 1917.	1,200
Seattle.....	360	105		67	100					December, 1917.	1,080
Charleston.....	2,800	27		67	77					September, 1917.	2,320
St. Louis.....	2,800	33		100	67					July, 1917.	2,320
Rochester.....	600	21		100	100			Apr. 30, 1917.	Aug. 1, 1917.	November, 1917.	1,200
Brooklyn.....	816	71		100	100					do.	1,632
Chicago.....	1,065	11			50			Sept. 16, 1916.	Aug. 15, 1917.	September, 1917.	2,310
Minneapolis.....										(1)	
Columbia.....	600	50		67	113			Sept. 14, 1917.		September, 1917.	1,080
Marblehead.....	100	100			200			May 14, 1917.		January, 1918.	4,500
Montgomery.....					100					do.	
New Orleans.....	2,500	89		100	80			Apr. 6, 1917.	Aug. 2, 1917.	December, 1917.	3,000
Salem.....								Nov. 1, 1917.		March, 1918.	1,100
Albany.....	2,500	89		100	25					December, 1917.	3,000
Birmingham.....	600	80	50	100	120					January, 1918.	600
Chester.....	500	80		100	140					May, 1917.	600
Cleveland.....										do.	

Chattanooga	2,000	88	100	20	Apr. 17, 1917	Jan. 15, 1917	Mare Island	September, 1917	September, 1917	2,400
Denver	2,000	89	100	97				April, 1917	April, 1917	2,400
Des Moines	2,000	84	100	100				March, 1917	March, 1917	2,400
Galveston	1,980	84	100	91				April, 1917	April, 1917	2,420
Boston								(1)	(1)	
Olympia	2,520	83	100	88				January, 1918	May, 1917	3,180
Raleigh	1,600	100	100	97	Mar. 20, 1917	May 4, 1917	Mare Island	(1)	April, 1917	1,920
Tacoma	2,000	73	100	96				August, 1918	do.	2,400

! Not filled.

* To be sold.

Destroyers.

Name of ship.	Paragraph IX.				Paragraph X.		
	A	B	C	D		A	B
				Line off- cers.	Men.		
Allen.....	Full commission.	Boston.....	15	100	33	Full commission.	Yorktown.
Ammen.....	Operating with reduced complement.	Philadelphia.....	30	50	60	do.	New York.
Aywin.....	Full commission.	Guantanamo.	45	125	88	do.	Charleston.
Bainbridge.....	do.	Cavite.....	24	100	73	do.	Asiatic station.
Bach.....	do.	Guantanamo.	25	125	90	do.	Norfolk.
Barry.....	do.	Cavite.....	100	100	80	do.	Asiatic station.
Beale.....	Operating with reduced complement.	Philadelphia.....	100	50	50	do.	Philadelphia.
Benham.....	Full commission.	Norfolk.....	15	125	90	do.	Yorktown.
Burrows.....	Operating with reduced complement.	New York.....	35	50	55	do.	New York.
Cassin.....	Full commission.	Guantanamo.	20	125	83	do.	Norfolk.
Chauncey.....	do.	Cavite.....	18	100	96	do.	Asiatic station.
Cornyngham.....	do.	Guantanamo.	42	125	81	do.	Norfolk.
Cummings.....	do.	Guantanamo.	65	125	85	do.	Yorktown.
Cushing.....	do.	do.	2	67	90	do.	New York.
Dale.....	do.	Cavite.....	2	210	100	do.	Asiatic station.
Davis.....	do.	Guantanamo.	25	67	98	do.	New York.
Decatur.....	do.	Cavite.....	30	25	24	do.	Asiatic station.
Downes.....	Ordinary.	Philadelphia.....	30	100	85	Ordinary.	Philadelphia.
Drayton.....	Full commission.	Guantanamo.	30	125	88	Full commission.	Jacksonville.
Duncan.....	do.	do.	30	125	75	do.	Boston.
Ericsson.....	do.	do.	6	30	81	do.	Yorktown.
Fanning.....	do.	do.	6	100	62	do.	do.
Flusser.....	Operating with reduced complement.	Charleston.....	24	50	55	do.	New Orleans.
Henley.....	do.	New York.....	60	50	40	do.	New York.
Hopkins.....	Reserve.	Mare Island.....	100	100	40	Reserve.	San Pedro.
Hull.....	do.	Mare Island.....	20	125	86	do.	Mare Island.
Jacob Jones.....	Full commission.	Delaware Breakwater to Philadelphia.	30	100	86	Full commission.	Hampton Roads.
Jarvis.....	do.	Guacanayabo Bay.	40	50	50	do.	Philadelphia.
Jouett.....	Operating with reduced complement.	Philadelphia.....	40	50	50	do.	do.

Leahman	Full commission	30	50	71	do	New York	40
Lawrence	Operating with reduced complement	36	67	67	do	Norfolk	40
McDonough	Reserve	10		37	Reserve	Mare Island	45
McCall	do	20	200	47	do	Galveston	20
McDougal	Full commission	50	100	90	Full commission	Philadelphia	39
Mayrant	do	25	126	87	do	York River	30
McNahan	Out of commission	45			Out of commission		45
Nichols	Full commission	34	50	61	Full commission	Key West	15
O'Brien	Full commission	25	125	87	Full commission	York River	12
Parker	do	25	125	88	do	do	10
Patterson	do	30	125	91	do	do	20
	Operating with reduced complement	20	50	63	do	Boston	30
Paulding	Full commission	29	50	83	do	do	24
Paul Jones	Reserve	90		41	Reserve	San Francisco	90
Perkins	Ordinary	15	50	35	Ordinary	Charleston	14
Perry	Reserve	45	100	43	Reserve	Keyport, Wash.	45
Porter	Full commission	30	125	90	Full commission	York River	30
Preble	Reserve	45		41	Reserve	Mare Island	8
Preston	Full commission	25	67	46	Full commission	New York	25
Reid	do	27	67	64	do	Key West	1
Roe	do	34	50	59	do	Savannah	20
Rowan	do	10	125	93	do	York River	10
Sampan	do	19	125	84	do	York River	10
Smith	do	16	67	88	do	Norfolk	16
Stearns	do	43	50	53	do	New York	30
Stewart	do	12		53	do	Charleston	12
					At sea, Central American waters.		
Terry	do	72	50	47	do	Charleston	3
Tripp	do	35	50	51	do	New York	35
Truxton	do	90		56	do	Cristobal	90
Tucker	do	15	125	83	do	At sea, North Atlantic	25
Wadsworth	do	10	125	82	do	York River	40
Wainwright	do	20	100	86	do	do	40
Walke	do	69	50	50	do	New York	20
Warrington	do	36	50	54	do	Boston	32
Whipple	do	150	100	52	do	Balboa, P.	150
Wilkes	do	125	94		do	York River	25
Winslow	do	30	125	86	do	do	10
Worden	do	10	100	51	do	Galveston	4
Shaw	do						

* Built at Mare Island; commissioned Apr. 9, 1917; completed May 25, 1917; sailed from Mare Island May 26, 1917.

Destroyers—Continued.

Name of ship.	Paragraph X.— Continued.		Paragraph XI.				
	Officers.		A	B	C	D	
	Line.	Re- serve.				Men.	Officers.	Men.
			1917.	1917.		• 1917.	1917.
Allen.....	100		Jan. 23	Feb. 11	Boston.....	} May.....	} April.
Ammen.....	100		May 31	Apr. 8	Philadelphia; fitting out, distant service.....		
Aylwin.....	100		Mar. 31	May 1	New York.....	} August.....	} March.
Bainbridge.....	100		May 5	June 1	Philadelphia; fitting out, distant service.....		
Batch.....	100		Mar. 11	Apr. 12	Charleston.....	} April.....	} April.
Barry.....	100		Apr. 28	June 14	Norfolk.....		
Beale.....	100		Mar. 29	Apr. 20	Cavite.....	} January 1.....	} March.
Benham.....	125		June 3	Aug. 1	Cavite and Olongapo.....	} April.....	} Do.
Burrows.....	100		Apr. 13	July 2	Norfolk.....	} November.....	} Do.
Cassin.....	100		Apr. 20	Aug. 20	Cavite and Olongapo.....	} July.....	} May.
Chauncey.....	100		June 3	Sept. 10	Philadelphia.....		
Conyngham.....	125		May 1	May 9	Norfolk; to fit out, distant service.....		
Cummins.....	125		Apr. 24	Apr. 4	New York.....	} July.....	} May.
Cushing.....	125		Feb. 28	May 2	Philadelphia.....		
Dale.....	150		May 4	June 4	Norfolk.....		
Davis.....	100		Apr. 26	July 14	Olongapo.....	} November 1.....	} April.
Decatur.....	100		July 1	Mar. 18	Boston.....		
Downes.....	25		Feb. 16	Apr. 24	Boston and New York; to fit out, distant service.....		
Drayton.....	100		Apr. 8	June 9	Philadelphia.....		
Duncan.....	125		June 1	Aug. 13	New York.....	} July.....	} Do.
Ericsson.....	125		Mar. 13	May 13	Olongapo and Cavite.....		
Fanning.....	100		Mar. 20	Aug. 1	New York; preparing for final trials and fitting out, distant service.....	} April.....	} Do.
			Mar. 31	Apr. 10			
			Apr. 14	Apr. 23			
			Jan. 3	Feb. 21			
			July 1	Aug. 1	Olongapo and Cavite.....		
			Mar. 31	Apr. 18	Philadelphia.....	} September.....	} Do.
			Apr. 11	Aug. 7	Charleston.....	} May.....	} July.
			May 3	May 21	Boston.....	} July.....	} April.
			May 27	May 10	Damaged by collision May 11, 1917.....		
			Apr. 13	May 4	New York; to fit out, distant service.....		
			Apr. 13	May 13	Philadelphia.....		

No.	Name	Date	Description	Remarks
100	Hopkins.	Apr. 24	Mare Island; head shunting.	
100	Hull.	July 6	Canal Zone; head shunting.	
125	Jacob Jones.	Oct. 28 ^a	Boston; fitting out, distant service.	
100	Jarvis.	May 7	Boston; fitting out, distant service.	
100	Jouett.	Mar. 19	Philadelphia; 14 days repair between dates given; boilers faulty.	
100		Apr. 10	New York.	
100		Apr. 20	Norfolk.	
100		May 2	Boston; to fit out, distant service.	
100		May 21	Norfolk.	
133	Lamson.	Mar. 20	Charleston.	
150	Lawrence.	Apr. 11	Mare Island.	
200	McDonough.	June 18	Philadelphia.	
100	McCall.	Mar. 10	Boston.	
125	McDougall.	Apr. 15	New York; to fit out, distant service.	
100	Mayrant.	Apr. 23	Philadelphia; out of commission.	
100	Monaghan.	Dec. 9 ^b	Charleston; fitting out, distant service.	
130	Nicholson.	June 19	New York; to fit out, distant service.	
125	O'Brien.	May 1	Norfolk.	
125	Parker.	June 15	Boston.	
100	Patterson.	Oct. 12 ^c	Boston; fitting out, distant service.	
100	Paulding.	May 7	Boston.	
150	Paul Jones.	May 21	No definite record; was at Cristobal, Canal Zone, May 15 to June 30, 1917.	
100	Perkins.	Mar. 20	Charleston.	
100	Perry.	May 5	New York.	
125	Porter.	Feb. 15	Puget Sound; renewal of tail shaft.	
100	Preble.	Apr. 18	Boston; fitting out, distant service.	
100		Nov. 4 ^d	Mare Island.	
133	Preston.	June 5	New York.	
133		July 7	Charleston.	
133	Reld.	Nov. 25 ^e	do.	
100	Roe.	Jan. 13	do.	
125	Rowan.	Apr. 25	New York; fitting out, distant service.	
125	Sampson.	May 13	do.	
133	Smith.	Feb. 15	New York.	
100	Sterrett.	May 17	Charleston; condenser work.	
150	Stewart.	Mar. 29	Charleston.	
100	Terry.	May 3	Boston.	
100		Aug. 12	Philadelphia; to fit out, distant service.	
100		Apr. 16	Charleston.	
100	Tripple.	Nov. 23 ^f	Boston.	
150	Truxton.	Feb. 4	Boston; fitting out, distant service.	
125	Tucker.	Feb. 12	Mare Island.	
		May 6	Balboa, Canal Zone.	
		May 8	Boston; to fit out, distant service.	

* Sunk.
^a Summer, 1916.
^b 1916.
^c December, 1916.
^d 1915.
^e 1916.
^f 1915.

Destroyers—Continued.

Name of ship.	Paragraph X.— Continued.		Paragraph XI.				
	Officers.		A	B	C	D	
	Line.	Re- serve.				Officers.	Men.
Wadsworth.....	125		1917. Mar. 27	1917. Apr. 4	Norfolk	1917.	1917. March.
Wainwright.....	100	200	Apr. 16	Apr. 24	Boston; fitting out, distant service.		
Walke.....	100		do.	do.	Boston; fitting out, distant service.	} July.....	} do.
Warrington.....	100	60	Apr. 6	Apr. 25	New York		
Whipple.....	100	70	May 3	May 19	Charleston	} July.....	} do.
Wilkes.....	150	100	May 1	May 21	Boston; to fit out, distant service.		
Winslow.....	125	98	July 20	Aug. 12	Philadelphia; to fit out, distant service; realign shafting of port engine.	} July.....	} do.
Worden.....	100	100	May 1	June 7	New York		
			Apr. 27	May 4	New York; to fit out, distant service.	} June.....	} June.....

Admiral McKEAN. When the hearing closed yesterday, in taking up the different types I had gotten along to the subject of tugs. Capt. Pratt in his testimony submitted this list of tugs available on the Atlantic coast, and of the number of seagoing tugs in European waters and the number of seagoing tugs in home waters.

The CHAIRMAN. That had better go in at this time, anyway. (The table referred to is here printed in full in the record as follows:)

Number of seagoing tugs in European waters.

June 1, 1917.....	None.
July 1, 1917.....	None.
Aug. 1, 1917.....	None.
Sept. 1, 1917.....	None.
Oct. 1, 1917.....	7
Nov. 1, 1917.....	8
Dec. 1, 1917.....	8
Jan. 1, 1918.....	8

Number of seagoing tugs in home waters.

June 1, 1917.....	27
July 1, 1917.....	30
Aug. 1, 1917.....	32
Sept. 1, 1917.....	42
Oct. 1, 1917.....	35
Nov. 1, 1917.....	35
Dec. 1, 1917.....	40
Jan. 1, 1918.....	43

Name.	Material of hull.	Breadth.	Mean draft.	Displacement.	Gross tonnage.	Speed.	Length over all.	Length.	Fuel coal.	Capacity oil.	Cruising radius.
		<i>Ft. in.</i>	<i>Ft. in.</i>	<i>Tons.</i>		<i>Knots.</i>	<i>Ft. in.</i>	<i>Ft. in.</i>			
Anderton	Wood	23 8	10 3	290	290	12.0	139 7		220		1,833
Chemung	Steel	26 7 1/2	11 6	575		11.0	123 6 1/2				3,000
Concord		28 0	11 6			12.5		140 0	175		4,330
Comber		22 6				11.0		143 0			3,000
Conestoga		29 0	16 0			3.0		170 0	286		4,800
Cahill 1		24 6	12 0	299	299	12.0	150 0				1,120
City of Lewes 1		24 0	9 0	748	276	10.4	150 0		80		1,940
Courtney 1		23 4	8 6			10.4	155 0		56		1,000
Davis		22 0	8 6			10.4	150 0				
East Hampton	Wood	26 6	10 0	660		12.5	160 0	163 9	210		2,880
Edwards, W. A.	do.	23 10	8 9		300	9.5	158 0				1,000
Douglas 1		24 0	8 9			10.4	158 0				1,000
Gorgona	Steel	30 0	15 6	732		12.0	125 6			50,610	3,456
Genesee		29 0	16 0			15.0	170 0		286		4,300
Gypsum Queen 1	Iron	27 0	14 0			14.0		135 0	151		3,600
Hubbard	Wood	23 9	10 3	184	184	11.5	160 0		100		1,200
Hubbard	do.	22 0	8 6	276	276	13.0	155 0		100		1,500
Iroquois 1	Steel	26 0	13 6	702		13.2	152 0			41,752	3,920
James, W. T.		22 0	8 5		267	13.0	150 0		100		1,000
Long Island	Wood	22 0	6 9			11.5	164 4		180		3,360
L'Ykens		29 0	15 0				170 0				4,300
Macbave	Steel	29 0	12 10	575		11.11	122 6				
Macomber	Wood	22 8	9 0			10.0		138 7	425		3,830
McKeever Bros.		22 0	12 0			10.0		136 0			1,000
McKeever, E. J.		24 0	12 0			10.0		136 0			1,000
McKeever, S. W.		24 0	12 0			10.0		136 0			(?) 1,000
McNeal, G. H. 1		21 0	9 6		244	10.0	140 0		100		1,000
McNeal, K. L.		24 0	9 0			10.0	160 0		120		1,000
Nahant		26 0	14 7	405	405	13.0		134 7	230		4,147
Ontario	Steel	35 6	12 6	1,120		13.2	185 2		445		6,612
Oscoda	do.	26 3	14 0	571		14.0	138 0		154		2,550
Passaic	Wood	27 0	9 6	401		10.5		124 4	45		
Patapsco	Steel	29 0	12 3	755		13.0		148 0	324		5,420
Patuxent	do.	29 0	12 3	755		13.0		148 0	324		
Peoria	do.	25 0	10 6	487		9.0		131 0	70		
Potomac	do.	25 0	12 0	785		16.0		138 9	200		
Palmer, J. A.	Wood	22 6	9 6			12.0	155 0				2,700
Penobscot		22 0	13 6		269	11.0	121 0		41,248		1,000
Penobscot	Wood	18 5	8 6					115 0			5,070
Penobscot	do.	18 5	8 6					115 0			
Sagamore	Steel	18 9	8 8			12.0		195 5			1,123
Savanna		20 0	8 8								

Admiral McKEAN. Admiral Sims, in his testimony, makes loud and strenuous comments as to delays of the department in sending him tugs for use in the European war, and states that the veriest amateur who has been in our ports up and down the coast knew that there were almost innumerable tugs in every one of the ports, because he had seen them.

It would not have been surprising for us to know that a layman did not understand why suitable tugs were not available because to him a tug is a tug, but even with my knowledge of Admiral Sims's lack of interest and familiarity with the material side of the Navy, I must say I was surprised at the form in which he put his statement to the committee, because it, in my opinion, without explanation, was entirely misleading. Of the hundreds of tugs along our coast, Admiral Sims should have known that only a few of them were really seagoing tugs; that these very few were links, and important links, in the transportation system of our country, and their numbers were strictly limited to the absolute commercial needs for water transportation, largely of fuel, up and down the coast. He should also have known, as it was a matter of common knowledge to everyone in the room, I suppose, that one of the most serious questions that we had at home to face was the shortage of fuel, especially in the New York and New England districts, and that there were months at a time when it was just touch and go whether we could keep power plants running; whether in some cases we would not have to shut down munitions factories for lack of power or fuel. As you gentlemen know, it at times got down to a point where we had to use our naval reserve of coal to heat and light municipalities, to keep hospitals and other institutions from freezing, and Admiral Sims should have known that the supplying of these communities under the conditions of our railroad transportation at the time made it absolutely essential, both from the point of view of our own needs, as well as those of our allies, that this fuel must be shipped by water, and that these tugs were absolutely essential to this transportation.

Even then, should a tug be purchased, commandeered, or ordered, there was a loud and forceful protest from Senators and Congressmen in the districts affected, always backed by an official protest from the Fuel Administration, Food Administration, or Railroad Administration—often all three at a time.

I think that some of the members of this subcommittee probably had experiences of their own in that line. I do not recall which ones I saw up there, but I think I have seen members of the committee when it was absolutely vital that we must transport that fuel to New England and other places along the coast.

Senator TRAMMELL. I had some experience of that kind, threatening to close down municipal plants on account of it.

Admiral McKEAN. We did buy tugs carefully selected from places where their absence would do the least harm. We did alter them for service overseas as rapidly as possible. We did send them as rapidly as old ones could be spared or new ones could be built. As an illustration of the situation, we bought some tugs that were, of course, commandeered, that had been used to transport fuel, and we were compelled, in justice to the owners, to purchase a number of

old barges of a type which we did not really seriously need. We had to do that in fairness to the owners of the tugs. We used them; but we put him out of business. We used the barges for storage purposes, even if we could not tow those old barges. We had to take them off his hands when we took his tugs away because we stopped his business, and it was not fair to leave those tugs on his hands, out of use.

As shown in the memorandum to be submitted, there were eight tugs in European waters by April 6, 1918.

TRAWLERS.

In addition to the tugs given above, we also sent a number of fishing trawlers which could be used for tugs in emergencies, and in securing these vessels we had great difficulty not only with the local interests' representatives. Senators and Congressmen who protested against their being commandeered, but with the Food Administration who insisted that the fish these trawlers were catching were essential to the food supply of the United States, to enable us to furnish other types of food to our Allies in Europe.

MINE SWEEPERS.

In the first year we also sent four mine sweepers which, in emergencies, could be used for tugs, and we fitted out certain salvage vessels and sent them to Europe for salvage and wrecking purposes, included in which is towing of disabled vessels.

As to the hundreds of tugs that Admiral Sims and everyone else can see in our ports, they were high pressure atmospheric exhaust harbor craft, and numerous as they were there was nothing in the line of the high cost of living that I know of that went up like the price of tugs, because of the demands of our overseas shipping, which was utterly and entirely dependent for efficient turn around upon the local tugs and barges in the ports from which they were operating. These tugs were absolutely useless for overseas work unless refitted with condensers, etc., to provide fresh water for use in their boilers. Most of them were so small that the extra machinery could not be installed and very few of them were large enough to permit of storage of the extra fuel necessary to permit them to go to sea in safety. Very few of them were really seaworthy craft at all, and the committee's attention is called to the fact that what apparently Admiral Sims took to be hundreds of available tugs to meet his needs, reduces to tens, and these tens are reduced to units when you consider those available and suitable or which could be made suitable for the service in which he contemplated using them.

The committee's attention is also called to the fact that a number of those sent, converted from fishermen, etc., were so badly racked by the service and the guns and other weights placed upon them for war service which they had not been designed to carry, that they sank and men were lost from them; that others, although they did not sink, could not be brought home because of their condition.

There is an item that Capt. Pratt referred to in reference to tugs, but I do not know that he brought it out so as to impress it. A tug is a commercial proposition, not a war proposition, and while he

brought out very distinctly that it was a commercial proposition and a link in our transportation system on this side, I want to accent the fact that the use they proposed to make of them over there was for salvage and the facilitating of British commerce, which only indirectly affected the war.

One of the purposes of the testimony here, from my point of view, is to show what we did do in the Navy, some of us, and what we did not do has been shown up already.

In this connection I want to call attention to the development of the communications system, and I attach a short history of the development of naval communications, and I think everyone will readily appreciate its importance, as however perfect your plans, your system of collecting information of the enemy, or organization of your forces, they all fall dead unless you have a reliable, complete, and efficient system of communications, tying all together.

This sketch is by Capt. Bryant, of the Naval Communications Service, and shows its development and the consolidation of all the systems of communication—cable, telephone, telegraph, radio, etc., into one office and one system.

The surprising thing, to me, and disappointing, is that the oldest system of communication, written, is in a different office and a different file room, and I think the whole system should be consolidated in one under the director of naval communications. This history I will not read. It is very interesting, and it will be put in as a part of the record, and it shows the development. When the armistice was signed, we had 3,400 men under instruction, radio operators. A total of about 7,000 operators completed their training. That, as big as it was, does not meet the commercial demands to-day; but every radio operator that we have in the fleet whose time is up leaves us and goes to the Shipping Board or to private shipping companies, because they have to carry these radio operators, and we are doing to-day with radio just what we did 30 years ago with electricians, we are training the fundamental force in a new business. It is a good job, but it is keeping us mighty hard up.

The CHAIRMAN. And as soon as they get trained they leave you?

Admiral McKEAN. Yes, sir. My division of battleships, which is at Bremerton, is having the service entirely remodeled, and we will have the most complete and entirely satisfactory radio communications system, including the radio telephone on board all ships—alternative systems for use in battle—and I will have one radio officer on board of each ship, and he knows the plant, and the average is one radio operator that knows the plant. We have run schools; we have done everything. We are making telegraph operators. We have got them all ready for that, but it will be months before we have a completely organized radio operating force on any one of those ships. We will use a part of the plant at a time, one unit. We will use this unit or that unit, but when it comes to operating the whole plant we can not touch it. It will take us months actually at sea using them before those men become real radio operators.

Senator KEYES. The reason they are leaving you, Admiral, is on account of the fact that they can get better pay in other service? It is a question of pay, is it not?

Admiral McKEAN. A question of pay. And when they go aboard a merchant ship there is nobody on the merchant ship that knows

anything about radio, so that the radio operator springs rank on them, and he is made an officer; and then he is a gentleman of leisure, so far as interference is concerned, because nobody else knows enough about it to interfere with him. But he is entitled to the pay, and he is a skilled and trained man. But with 48 of them in the different units on my ship for use in battle, we could not afford that. Uncle Sam could not stand for that.

The CHAIRMAN. Has there been any additional pay provided in the Navy?

Admiral McKEAN. No, sir. I think that in the bill that is now before Congress the radio operators have been put up, but it is not anything like what the pay is outside. We will fill these gaps when we get enough men trained. Capt. Bryant says in this report:

The year before the war there were handled approximately 125,000 dispatches from the Navy Department. These dispatches averaged about 25 words each. From April 6, 1918, to April 6, 1919, approximately 1,000,000 dispatches, of an average of about 30 words each, were handled from the Navy Department alone. Another work which naturally fell to this was the censorship. That was controlled from the central office in Washington, and there were 24 stations where we had to have a censorship control.

The report of Capt. Bryant is as follows:

A-1.

THE UNITED STATES NAVAL COMMUNICATION SERVICE.

[By Capt. S. W. Bryant, U. S. Navy, Acting Director, Naval Communication Service, Navy Department. Presented at a joint meeting of the Institute and the Philadelphia Section, American Institute of Electrical Engineers, held Wednesday, Oct. 15, 1919.]

In 1912 the so-called Naval Radio Service was established, with Capt. Bullard as the first superintendent. It was apparent that the material progress made in radio was at that time much further advanced than the administrative and operating features, so that efforts were concentrated immediately on a plan for the establishment of a service of communication that would serve the needs of our fleets and merchant marine to best advantage, both in time of war and in time of peace. We had a number of stations along our coast that were individually very good, and materially good; and so far as their operation was concerned, were very good; but they were not connected up in such a way as to serve the interests of the fleet to the best advantage.

The plan outlined provided for continuous communication with our fleets and among the various subdivisions of the fleets, as well as for the coordination of all naval communication facilities so as to provide a rapid and reliable interchange of information between all naval organizations afloat and ashore.

The advisability of combining all naval communication activities—that is, telegraph, telephone, cable, etc., and radio—under one head was soon appreciated by the Navy Department, and the name of this office of the department was changed from the 'Naval Radio Service' to the 'Naval Communication Service,' and it was placed under the Chief of Naval Operations where, logically, it belonged. It consists of three main divisions, viz., Atlantic, Pacific, and Philippines, and each division is subdivided into districts.

A very valuable experiment was carried out by the Navy Department in May, 1916, in which all the naval stations within the continental limits of the United States were connected up to a central telephone switchboard in the Navy Department, and by means of which instant telephonic communication could be had between the various naval stations and the Navy Department, and also among the stations themselves. This was made possible through the assistance of the American Telephone & Telegraph Co., and its value later on, when this country declared war against Germany, was clearly proven. It was during this test that the commandant of the navy yard, Mare Island, Calif., talked by telephone to the commanding officer of the battleship *New Hampshire*, which was then at sea off the Virginia Capes. The commandant's remarks came by long-distance telephone from Mare Island to Arlington, where the transmitting station was installed, and from there out to the *New Hampshire* off the Virginia Capes.

The greatest value derived from this experiment, aside from the knowledge that such rapid communication by telephone was available to the Navy Department, was the fact that all of the apparatus necessary was specially marked and could be placed in operating condition on 24 hours' notice. As a result, the interior communications of the country, so far as naval needs were concerned, were, on the outbreak of war, in excellent operating condition, and made the task of the Navy Department, in communicating its instructions and orders to the various naval stations, a comparatively simple one at the time of the declaration of war.

On January 1, 1917, the Naval Communication Service operated 55 radio stations, distributed along the coast of the United States and its possessions. Naval vessels were equipped so that they could receive only one message at a time. Not all of the American merchant vessels were equipped with radio apparatus, some were equipped with poorly designed radio apparatus, and none of their radio operators was proficient in the procedure of communications during war. The Navy had only 1,031 radio operators in its service.

The radio technical equipment of the Navy was as good as any in general use in the United States at the time, but the demands for communication proved that the technical equipment would have to be increased and improved to conduct all of the necessary communication demanded in time of war.

At the beginning of the war the demands for quick communication increased by leaps and bounds. It was found necessary to communicate with ships in all parts of the world, while at the same time to maintain long-distance communications between the Navy Department and our outlying possessions and expeditionary forces. It was necessary to maintain continuous and rapid communication between the Navy Department and Europe, South America, Central America, West Indies, Pacific coast, Hawaiian Islands, Guam, Tutuila and the Far East. The most important centers of communications were at Cavite, P. I., Hawaiian Islands, Canal Zone, Washington, D. C., and the capitals of the allied nations in Europe.

To meet the demands for communication, the Navy's facilities were greatly and rapidly increased, and means were provided for collecting and disseminating information to every part of our coast and to naval vessels in Europe, South America, and the Far East.

The Navy took over and operated 59 commercial stations. At the same time the several privately-owned stations were closed, including all the stations operated by the amateurs, which were not necessary nor desirable for use during the war. Sixty-seven land radio stations were built by the Navy during the war, all equipped with the best apparatus, thus more than doubling its radio facilities on shore.

Naval vessels were equipped with improved apparatus, so that when the armistice was signed battleships were able to receive four messages simultaneously and transmit three. The commander in chief of the fleet could talk to the captains of vessels in the fleet; while at the same time the various ships of the fleet could communicate with one another. In addition, and at the same time, airplanes could communicate with their respective battleship units. None but a naval officer can appreciate the value of such a system or how much such a system facilitated the freedom of the movement of the fleet.

The Navy Department equipped all American merchant vessels with modern apparatus and furnished operators for them, so that these merchant ships could receive messages at any time of the day and transmit messages at long distances in case of distress.

The Navy had to train most of its radio men, because the radio amateurs in this country were soon incorporated in the Army and Navy. These operators were trained at Harvard. In June, 1917, there were 350 students under instruction. When the armistice was signed there were 3,400 men under instruction, and operators were being graduated at the rate of about 200 a week. A total of about 7,000 operators completed their training. In addition to the radio operators, it was necessary to train officers for communication duties on board the ships. At the time the armistice was signed each ship of the Navy had a communication officer and each merchant ship had a chief petty officer who performed communication duties and, therefore, relieved the master of the ship from a very vexatious duty.

The year before the war there was handled approximately 125,000 dispatches from the Navy Department. These dispatches averaged about 25 words each.

From April 6, 1918, to April 6, 1919, approximately 1,000,000 dispatches, of an average of about 30 words each, were handled from the Navy Department alone. Some of these dispatches, on account of the necessity of broad-casting, were sent twice in order to insure their delivery.

As it was assumed that the use of radio apparatus by ships at sea enabled German submarines to ascertain, more or less accurately, the movements of such ships, communi-

cation by radio from merchant ships was discontinued except in case of emergency. Men-of-war were cautioned not to use their radio apparatus unless necessary. However, it was very necessary that information should be received on shore regarding the movements of the enemy, and that the consequent orders to ships at sea should be transmitted expeditiously. Therefore, in order to direct the movements of convoys, and to transmit information to naval vessels regarding the enemy, and to issue orders to both merchant ships and naval vessels, a comprehensive system of transmission from shore was organized with the view of making it unnecessary for ships at sea to use their radio apparatus.

All merchant vessels listened for their orders from certain designated shore stations during certain hours of the day. These messages were sent by high-power and low-power stations, depending on the distance of the ship from shore. Naval vessels intercepted messages from shore stations at all hours of the day. In order to send a message to a naval vessel at sea, it was necessary only to transmit from certain shore stations on a designated wave length. It soon became evident that this was a very sure means of communication. Many times, 50 or 60 messages were transmitted to sea simultaneously, all destined for different classes of vessels, and they were received by ships in accordance with the plan.

The foregoing system demonstrated that ships at sea could be warned of mines and submarines, and their movements directed without the necessity of their using their own radio apparatus. The system was automatic to such an extent that it was almost certain that a vessel could be reached at any time.

In order to check the radio work of merchant vessels, a comprehensive system of inspection was organized, both in the United States and abroad. Every merchant vessel that came into port received a thorough inspection of its radio apparatus, and the radio operators were examined and thoroughly instructed. Any mistake indicated in the log books was investigated and the operator instructed as to the correct method of handling such cases.

Besides inspections, the Navy maintained a comprehensive system both at home and abroad of radio repair stations. Any radio apparatus on board ship which had broken down was repaired when the ship came to port.

When the United States entered the war it was noticed that the Central Powers were conducting a comprehensive scheme of propaganda by wireless. Counteracting this were the systems operating from France and England. The United States had no means of distributing American news throughout the world. Therefore, it was decided to use the transoceanic system of the Navy to distribute news of a reliable nature from the United States. The transatlantic stations transmitted this press news to Europe and South America. Naval vessels in South America received the press and distributed it to the local papers in those countries. The European news was distributed by Admiral Sims's headquarters and redistributed to the various capitals of Europe, including points in Russia. The Central American news was broadcasted from the Navy's high-power station in the Canal Zone, and was received in the northern part of South America and Central America and Mexico. News was distributed to the Philippines, Japan, China, and Siberia, through the Navy's transpacific high-power stations. These reports were received in the Philippines, Shanghai, Vladivostok, and Japan, and distributed to the local papers in those countries.

During the war it was found exceedingly difficult to locate persons in the United States who were using radio apparatus unlawfully. Also, when the German submarines began operations off the United States in June, 1918, it was found that, although the radio signals of the submarines were intercepted by naval radio stations along the coast, there was no efficient devices by which the exact location of the submarines could be ascertained from their radio signals.

It was found that enemy submarines used their radio apparatus promiscuously, and that they operated in pairs in order that they could fix the position of their prey by means of bearings. Such procedure necessitated the use of radio.

In order to counteract the foregoing situation, the Navy developed a comprehensive system of radio compasses, by means of which the bearing or direction of the enemy's signals could be obtained. Also, all signals were copied, so that every time a message was sent the Navy could trace it. Shortly afterwards, it was noted that the submarines did not use their radio, and it is believed that the Navy's shore radio-compass system robbed the enemy of a vital weapon, as the radio compass not only made it dangerous for the enemy to use their radio for communication purposes between one another, but also prevented them from using it for sending decoy distress messages.

Later the Secretary of the Navy "in a plan to hasten the progress of troop ships" authorized the construction of 15 additional radio-compass stations, making a total of 34 on the Atlantic and Gulf coasts. These radio-compass stations were at harbor entrances and enabled ships at sea to enter port without consequent delays due to

thick weather and fog. This was a very important item in the war, as every minute counted in a ship's voyage.

In November, 1918, the telegraph and telephone division was in charge of a lieutenant commander, with 5 officers, 12 chief petty officers, and an enlisted personnel of about 130. The telegraph system of the Navy Department at that time included wires from Galveston, Tex., to Bar Harbor, Me. The leased telephone wires of the Navy Department extended from Norfolk, Va., to Portsmouth, N. H., there being seven private telephones from the department to New York alone. The telegraph office of the Navy Department was handling 4,000 messages a day, and the Navy telephone exchange was handling 18,000 telephone calls per day.

The censorship of all cables was controlled from this office through the following branch offices:

	Personnel.			Personnel.	
	Nov. 11, 1918.	June 30, 1918.		Nov. 11, 1918.	June 30, 1918.
Brazil.....	9	0	San Antonio.....	7	0
Guam.....	5	0	St. Croix.....		
Guantanamo Bay.....	3	0	Havana.....		
Galveston.....	17	0	Santo Domingo and Puerta Plata.....	5	0
Honolulu.....	17	0	San Diego.....	1	0
Cape Haitien.....	1	0	San Juan.....	9	0
Key West.....	9	0	San Francisco.....	151	0
Lisbon.....	1	0	St. Thomas.....	3	0
New Orleans.....	12	0	Seattle.....	5	0
New York.....	760	78	London.....	1	0
Paris.....	1	0	Chief cable censor.....	103	4
Ponce.....	3	0			
Panama.....	8	0			

Now I come to rather the most difficult subject in the whole outfit, that of aviation. I have here a number of papers which show what the Navy Department did with aeronautics prior to the war; but before going into the papers I have a few remarks in general.

The dreaming of dreams as to air navigation, air battleships, cruisers, scouts, destroyers, torpedo planes, bombers, mine planters, etc., is easy. We have all indulged in this delightful pastime, but the production and development of these entirely new craft, using a new medium, the air, requiring new materials, new uses of old materials, the development of a new science, the training in a new art, the education of new designers, the training of a number of new types of mechanics, etc., could not be done and was not done instantaneously by any nation, even under the stress of war, and we started behind.

Admiral Fiske as a fireside critic produced more aircraft on paper than he did actual aircraft as aid for operations.

He had splendid ideas, if we could only have realized them. Nobody did.

Admiral Fullam has seen a large number of training machines both land and sea types operating during and since the war in the ideal conditions for school work at San Diego. I refer to these two officers by name only because they mentioned aviation particularly in their testimony. He has undoubtedly seen real service type land machines, but school machines and fighting land types are no further apart than the highest type of land machine is from the development as applied to the sea. When the land type designer has completed his work, the sea type designer commences. He takes over the machine that the other man has produced, and then he tries to make the machine suitable to carry the excess weight of the floats, etc., so as to be able

to land on the water, to get off the water and go through the water at high speed without racking and tearing it to pieces, and I am sure that the expert designers will all agree that the designing of the original machine is much simpler than the adapting of the machine to sea use; and the same machine that is a success ashore, when you put the floats and all the gear necessary to operate at sea upon it, is not a success. It takes a good deal more power for the same speed, and she can not be as handy. There are many, many, handicaps. I compare them here. There are millions and millions of people who can walk; very few, comparatively, who can swim.

We might have done more; we might have done it sooner; we might have done what we did do better. But we did the best we knew how with the brains and energy God gave us to work with, and after all the U. S. NC4 was the first heavier-than-air craft to cross the Atlantic; and had it not been for a bit of hard luck the U. S. C3 would, I believe, have been the first lighter-than-air craft to have crossed the ocean.

There was a little bit of a side story on that. The heavier-than-air people had planned a trans-Atlantic flight, and did not expect to have a balloon type of airship. The lighter-than-air people at the last minute developed a combination that made the C-3 an altogether different ship. They wanted to get in the game. We let them go. They did so well, and they got up to Trepassy Bay so soon that the heavier-than-air people were afraid that the glory of the first flight across would be taken away from them; so that they did not think that the C-3 ought to be let go before the heavier-than-air people were allowed to go, and the C-3 people needed rest anyhow, so that we said, "We will hold on so long, and give you a show." We did not want to interfere with a sporting proposition. Then the bad weather conditions and an unexpected gale tore the C-3 to pieces. But she would have successfully crossed the ocean, I believe.

The CHAIRMAN. What was she?

Admiral McKEAN. She was a blimp, a small dirigible.

The CHAIRMAN. A blimp?

Admiral McKEAN. Yes.

These official documents attached show a development that, under the conditions, with our Navy, our Army, and our Allies making demands all of which could not possibly be met, is, in my opinion, really remarkable.

No development could have been completely satisfactory and have fully met the daily increasing and expanding demands.

What was satisfactory to our people on this side and on the other side at the end of one week by Monday morning was out of date, and we had to start all over again. It was a developing, experimental science, and you did not know what a day or a night might bring forth.

The answer to all the aviation criticisms is that aviation heavier than air and lighter than air depends on the motor. That is fundamental. If you have a light enough and powerful enough motor within its weight, you could paste newspapers on it and make it fly. It would go off the ground of itself, almost—just the engine.

Until the Liberty motor had been produced it was impossible for either our Army or Navy to expand to war dimensions. The motors and machines they were using abroad were practically hand fitted.

They had not gotten a quantity production at any time. That was the only thing that would save us, so that we had to produce a standard type of engine that we could produce according to American manufacturing methods, and we had to do our work with machinery. Our men do not know how to fit those things by hand.

And, another thing, had we produced those special types where each engine was a unit, and everything was made to fit it, the number of spare parts we would have had to send abroad would have overloaded all the tonnage that it was possible for us to build at any time. We could not have gotten the stuff across there. We had difficulty as it was. The Liberty motor's first successful trial was on July 4, 1917. That was the type engine. I am informed that there were 1,100 changes made in that engine before it was really a satisfactorily completely standardized product.

In the same way and to the same degree that the Liberty motor was the foundation stone in the development of heavier-than-air craft so was the production of argon gas, in quantity, the real key to successful lighter-than-air work.

These are copies of official documents taken from the files of the department.

The list is as follows:

1. Memorandum on aviation.
2. Annual report on aeronautics.
3. Orders for Capt. Mark L. Bristol.
4. Memorandum of personnel. February 26, 1916.
5. Report "Aeronautics, Navy, 1916," from Bureau of Supplies and Accounts.
6. Indorsement from General Board "Appropriation, 'Aeronautics,'" March 21, 1916.
7. Secretary's letter to General Board as to future of naval aeronautics. April 12, 1916.
8. Memorandum re Pensacola stations. May 15, 1916.
9. Change of orders, commander Air Service. May 25, 1916.
10. "Development of aeronautics," letter from General Board. June 24, 1916.
11. Report from General Board on number of aircraft for naval service November 15, 1918, based on all the information available.
12. Memorandum from Chief of Staff, War Department, re general and local plans for air station defense.
13. Summary of aircraft in use or contracted for. November 27, 1916.
14. From Secretary of War. "Policy with reference to development of certain types of aircraft." December 28, 1916.
15. From Secretary of War. "Defense against air attack." December 29, 1916.
16. Letter from Assistant Secretary, "Army and Navy Board re development of Zeppelin service." January 12, 1917.
17. From Secretary of War re development of Zeppelin service. January 31, 1917.
18. Report of Board of Army and Navy Officers re development of aeronautical service. March 12, 1917.
19. Memorandum. "History of naval aeronautics." June 25, 1917.
20. Memorandum. "Funds appropriated for aviation in the Naval Service." April 3, 1920.
21. Memorandum. "Statistics of aviation personnel and material, 1917 and 1918." April 5, 1920.

The difficulty in the lighter-than-air work is to get a container that will hold gas. The next difficulty is to get a gas that is not explosive or inflammable. Everybody had used hydrogen until argon was discovered, and then they all wanted that, because it was non-inflammable. We found it in the United States, and proceeded to build plants for its production in quantity and ultimately it, or a substitute with similar characteristics, will be the gas used in commercial and military flying, on account of its lack of inflammability. Both of these developments, that of the motor and of the argon.

were American in conception and in execution. They were done under war pressure.

Our expansion in personnel and material is shown in one of these papers. There are also shown the stations, the machines, and personnel operating them in Europe at the time of the armistice.

The CHAIRMAN. Have you submitted a list showing the seaplanes that we had on April 6, 1917, and also later during the war?

Admiral McKEAN. Yes, sir; I have lists here showing the different stages and the development of personnel and material at those times; a sketch history of aviation in the Navy.

These are copies of official documents taken from the files of the department. The first is B-2 [reading]:

'a' For three years prior to July, 1914, aviation was handled as a matter of experiment in the Bureau of Navigation, with small appropriations of approximately \$10,000 per annum.

That was the time that I became responsible for aviation and the development of aviation. It did not belong legitimately to my part of the department, but Admiral Benson and the Secretary did not think we were getting the progress that was to be expected, and they were not satisfied that we knew exactly along what line to go, and in spite of my protest they said I had to take that thing and dig it out to the foundations, and find out where we were going and why, and organize it; and as soon as I got it organized on new lines, and established, and got people trained to take it over, then they would take it off my hands. I did not know much about it. I had been interested in it in a general way. So I sat down and asked myself a lot of questions: Did the Navy need aircraft? If so, why? If we needed aircraft, what kind, heavier-than-air or lighter-than-air, or both? If we needed aircraft, what were we going to do with it? Where were we going to use them? Were we going to use them from ships or shore stations, or both? If we were going to use them from shore stations, how many shore stations should we have; where should they be; how large should they be; how much personnel would be involved? If from ships, what kind of ships; all, or only scouting ships; or would we have to build special ships to operate them from? And in making my estimate of the situation, I worked out the number of questions that I tried to get intelligent answers for, and then shaped up in a short letter to the General Board, not quite so definite and fundamental, A, B, C questions, because I did not want to put them that way to the board. I could ask those questions of myself, but I did not want to ask them of the General Board.

I got out of that a policy which we developed, and along which we worked, and we had then a target to shoot at. Theretofore they had done wonderful work in the way of pioneering work; they had trained a number of officers and men to fly; they had done plane development work, and so forth, and they were flying in machines, that, if I had been in the life insurance business, I would not have insured the life of any man that touched one of them, even on the ground. Some of them were dangerous. But they did good work. They did not know exactly where they were hitting, but they were going to learn to fly, and they did learn to fly, and they deserve an immense amount of credit, not only the officers themselves but the

people behind them, Admiral Fiske for one of them. I found they had about \$300,000 of the appropriation left, and I organized an aviation section in material with the best officers I had to work with, and we commenced to establish a policy and got it approved, and then we knew where we were going, and we developed as rapidly as we could.

When I took over the office there were a number of contracts but nobody was within six months—twelve months—two years—of their contract dates of delivery. They could not be. They did not know the game. Every fellow was making experiments; and we spent our money judiciously in encouraging even promising experiments, as I said the other day, and we gave every contractor who could build any type of machine that we had tested out or that was approved, a quantity order for training purposes. But they had not, at that time, gotten beyond the school planes, and our school planes were not the safest things that ever happened.

And of engines we had all types, from everywhere. We had contracts abroad that we could not get filled. They would not give them to us. We had contracts at home. We endeavored to buy the rights abroad. There were companies spending millions of dollars in development. The foundation of the Liberty motor was developed in the Packard works by Mr. Joy, the vice president. I would hate to guess at how much money he spent before the Liberty became an engine in the attempt to develop an American type from the Rolls-Royce type for quantity production. I have heard the amount estimated at \$2,000,000. That was pooled with all the others. The Hall-Scott was a good motor, the one that we used in our planes. But we did not have a motor that was satisfactory at all, and we did not have a motor at that time that could be produced in anything like war quantities. It simply did not exist.

In March, 1916, the aviation work was moved from the separate office on the first floor of the State, War, and Navy Building and was officially and physically incorporated in Material under the immediate supervision of Lieut. Bronson. He was killed in an explosion at Indianhead early in November, 1916, in an attempt to test an aerial bomb that the Bureau of Ordnance was trying to develop.

Lieut. J. H. Towers, who was the oldest flier we had, was assigned to the aviation desk.

In May, 1917, Commander Irwin was ordered to duty as my assistant in aviation, and in July I had gotten the organization and the plan and the policy shaped up enough so that at my request the Chief of Operations and the Secretary approved my divorcing Aviation from Material, and I said, "Thank God," and slept easier nights.

After that everything went along according to the plans, and it was well looked out for.

The CHAIRMAN. What was that date?

Admiral McKEAN. March 1, 1917. This condition continued until July, 1918, when it was separated and made a separate office.

The CHAIRMAN. And you had no more to do with it after that?

Admiral McKEAN. No, sir; not after that. It had then a very good set of officers. We had gotten the personnel in and it had gotten thoroughly organized, and there was fine cooperation between the bureaus and the aviation office direct, and they were getting results, and, like many other things, had the war lasted a little

longer the people would not have been so disappointed in our air results. We were going fine when it stopped.

The first of these papers which I submit is dated January 19, 1916, from the Director of Naval Aeronautics to the Chief of Naval Operations, it being the annual report on aeronautics. That was made by Capt., now Admiral, Bristol. It goes into the whole development of that time.

This memorandum as to the history of aviation and the annual report referred to are as follows:

B-2.

MEMORANDUM ON AVIATION.

(a) For three years prior to July, 1914, aviation was handled as a matter of experiment in the Bureau of Navigation, with small appropriations of approximately \$10,000 per annum.

(b) In July, 1914, the first step was taken for the establishing of the Office of Naval Aeronautics, which was a part of the Office of the Chief of Naval Operations, and was in charge of Capt. M. L. Bristol. This office continued until March 1, 1916. On February 25, 1916, orders were requested for Capt. Bristol, which detached him for duty with the fleet.

(c) In March, 1916, the aviation work was moved from its separate office on the first floor of the State, War, and Navy Building, and was officially and physically incorporated in Material, under the immediate supervision of Lieut. Bronson. Lieut. Bronson was killed in an explosion at Indianhead early in November, 1916, and Lieut. J. H. Towers was assigned to the aviation desk in Material. This organization was in force when diplomatic relations were severed with Germany early in 1917.

(d) In May, 1917, Commander N. E. Irwin was ordered to aviation duty in Material, and in July of the same year the aviation work was segregated and moved to the Navy Annex. This condition continued until March 7, 1918, when General Order No. 375 was signed by the Secretary of the Navy, creating the Office of the Director of Naval Aviation."

B-2-1.

JANUARY 19, 1916.

From: The Director of Naval Aeronautics.

To: The Chief of Naval Operations.

Subject: Annual Report on Aeronautics.

The developments in aeronautics at the present time may be summarized as follows: (1) The establishment of an air service in the Navy being developed by the efforts of all the bureaus of the department concerned and directed by the Office of Naval Operations.

(2) The establishment of an aeronautic station at Pensacola for the training of personnel for the air service and for all kinds of practical experiments to develop materials.

(3) The establishment of courses of instruction and training for officers and men to produce air officers to command and crews to man air craft.

(4) The establishment of a regular system of detail of officers and men for instruction and training.

(5) A system of model experiments in the "wind tunnel" and "model basin" at the Washington Navy Yard, coupled with practical experiments at the aeronautic station, Pensacola.

(6) A special testing plant at the Washington Navy Yard for research work to develop air-craft machinery.

(7) The cooperation of the United States Weather Bureau to obtain meteorological observations for special use of the air service.

(8) The authorization of the National Advisory Committee for Aeronautics was greatly due to the efforts of the Navy Department.

(9) The development of an inspection system has been well advanced for aeronautical materials supplies from private concerns.

(10) A campaign of education of private manufacturers of aircraft and aircraft materials to the requirements for naval use has been carried out pretty thoroughly.

(11) The administration of all affairs of the Air Service has been worked out on a sound basis and placed in the same category as all other services of the Navy.

A large number of experiments have been carried out and great progress made in the development of aeronautics for the Navy. These are summarized as follows:

(1) All kinds of flying under different weather conditions and sea conditions have been carried out to determine the best system of training of officers and men for the Air Service.

(2) A type of aeroplane for instructional purposes has been developed.

(3) To develop the question of the relative value of inherent stability in connection with the other requirements of an aeroplane.

(4) To determine the value of automatic stabilizers. In this connection, the Sperry gyroscopic stabilizer was investigated and tested.

(5) To determine the best type of floats for an aeroplane to operate on the open sea. The boat type, the single pontoon type, the twin pontoon type, and a triple pontoon type have been and are being tested.

(6) To determine the banking control of aeroplanes; ailerons and flaps being utilized and modified.

(7) To determine the best type of steering apparatus, the Curtiss type, two Wright types, the Farman type, the Deperdussin type, a modified Deperdussin type, and the Burgess-Dunne type being utilized.

(8) To determine the best aeroplane fabric, as regards strength and durability, utilizing different dopes and treatments.

(9) To determine a suitable motor to aircraft, three Curtiss types, two Wright types, one Renault type, one Sturtevant type, one Robert type, one gyro duplex nine-cylinder type, and one Hall-Scott type motors being tested.

(10) To determine propellers suitable for aircraft, various types of two, three, and four bladed propellers being tested.

(11) To determine the instruments and accessories for aircraft motors, various types of magnetos, carburetors, tachometers, gasoline and oil systems, oil gauges, gasoline feed pumps being utilized.

(12) To develop the radiating system for cooling the circulating water of aircraft motors, four types being considered.

(13) To develop the equipment of officers and men operating aircraft, clothing, goggles, helmets, gloves, life preservers, and safety belts with quick-releasing devices being considered.

(14) To develop equipment for navigating aircraft, altimeters, airspeed meters, compasses, inclinometers, sextants, navigating watches, binoculars, drift indicators, and chart boards are being utilized.

(15) To develop signaling apparatus specially adapted to aircraft, fireworks, smoke bombs, and radio being utilized.

(16) To develop repair and operating methods for active service of aircraft, which also includes quick assembling and disassembling, the proper alignment for flight, and the officers and crews required for aircraft.

(17) To develop a launching device for aeroplanes launched from ships under way at sea.

(18) To develop the operation of aeroplanes with the fleet in active service, the *North Carolina* being fitted with "launching device," special cranes for launching aeroplanes and storage arrangements for carrying aeroplanes which are being considered.

(19) To develop dirigible operations.

(20) To develop material for the construction of air craft and air craft accessories.

In order to proceed to the future development of an efficient Air Service of the Navy, the following activities should be recognized at once and pushed energetically, viz.

(1) A section under the Office of Naval Operations (Material) devoted to aeronautical work is required with officers to push the work.

(2) A section of the Air Service for the fleet is necessary.

(3) A section of the Air Service for coast defense is necessary.

(4) A section of the Air Service for Advanced Bases is necessary.

(5) The aeronautic station at Pensacola for the training of officers and men and all kinds of experimental work should be continued.

(6) A commanding officer of the Air Service to take charge of all activities of air craft and air craft stations should be detailed.

(7) The preparation of plans for coast defense by air craft with the immediate location of air craft stations at the most salient strategical points of our coasts is absolutely essential.

(8) All the bureaus having cognizance of aeronautical materials should consider the development of such materials of first importance, requiring special effort equal to the efforts, in all other directions if not more, considering the necessity for rapid development.

(9) Adequate appropriations for the Air Service are necessary the \$2,000,000 recommended to Congress to be appropriated for next year with \$1,000,000 for each year for four years thereafter is not adequate.

The next is dated February 25, 1916. That is when Capt. Bristol was relieved of aeronautics, and he was sent to sea on the *North Carolina* on account of his experience and his interest in aviation, to develop aviation on board ship by practical testing out, and he was to organize the scout division with the *North Carolina* as his flagship, and eventually three other ships, and we were going to have a division of scouts with aeroplane attachments complete, within a year from that time.

The paper last referred to is here printed in the record in full as follows:

B-2-2.

FEBRUARY 25, 1916.

From: Chief of Naval Operations.

To: Chief of Bureau of Navigation.

Subject: Orders for Capt. Mark L. Bristol.

Enclosures: 3 memoranda—Complement of *North Carolina*.

1. It is requested that orders be issued to Capt. Bristol detaching him from duty as Director of Naval Aeronautics, and ordering him to duty in command of the Air Service and in command of the *North Carolina* in connection therewith, also; that he be directed to assume supervision over all aircraft and aircraft stations and the further development of aeronautics in the Navy. Further that he be directed to report by letter to the Navy Department and to the commander in chief of the Atlantic Fleet upon taking command.

2. In order to place the *North Carolina* in commission for duty in experimenting with aircraft and operations of aircraft with the fleet, it is requested that an additional officer of suitable rank be detailed as executive officer. The other officers should be ordered to that ship from officers now attached to the aeronautic station, Pensacola, upon recommendations to be made later by Capt. Bristol.

3. It is requested that the complement of enlisted men required for the *North Carolina* be completed. There are inclosed three memorandums regarding enlisted complement of the *North Carolina*. The vacancies therein reported to make up a reduced complement is the very minimum that should be considered, and the full complement should be provided or as much thereof as possible.

4. It is desired to begin operations with the *North Carolina* as soon as possible, and at least that she arrive at Guantanamo by the 26th proximo, when target practice of the Atlantic Fleet begins. It is requested that Capt. Bristol's orders be issued on 4th proximo.

The next is a memorandum dated February 26, 1916, which shows the personnel required for the aircraft then on hand and ordered that Lieut. Bronson estimated for me at the time I took it over, as necessary for the aircraft then on hand and ordered. This memorandum is as follows:

B-2-3.

MEMORANDUM.

FEBRUARY 26, 1916.

For: Capt. J. S. McKean, U. S. Navy.

Subject: Personnel required for aircraft now on hand and ordered.

One captain, Division of Material; 1 lieutenant commander, assistant; 1 captain or commander in command of aeronautic station, Pensacola; 2 lieutenant commanders, as assistants; 4 lieutenants, as instructors.

For 1 dirigible: 1 lieutenant commander, 1 lieutenant, 4 enlisted men.

For 16 aeroplanes, on hand: 16 lieutenants (junior grade), 64 enlisted men, and 16 lieutenants.

For 29 aeroplanes ordered: 29 lieutenants (junior grade), 116 enlisted men, and 29 lieutenants.

For 1 spherical balloon: 2 lieutenants.

For 1 kite balloon, ordered: 2 lieutenants.

In all: 2 captains, or 1 captain and 1 commander; 4 lieutenant commanders; 54 lieutenants; 45 lieutenants (junior grade); 184 enlisted men.

Here is a statement of appropriations, dated February 29, 1916. I wanted to know how I stood on the appropriations before I started plunging on the air business.

(The statement is as follows:)

B-2-4.

Navy Department, Bureau of Supplies and Accounts—Aeronautics, Navy, 1916.

	Available balance.	Obligations outstanding	Unexpended balance.	Amount expended.	Total of allotment.
1. Airship shed.....		\$55,800.00	\$55,800.00	\$34,200.00	\$90,000.00
2. Wrecking derrick.....	\$23,589.45		23,589.45	11,226.55	34,816.00
3. Hydrogen plant.....	1,049.38	6,026.20	7,075.58	17,924.42	25,000.00
4. Maintenance, aeronautic station.....	4,302.95	5,133.16	830.21	24,169.79	25,000.00
5. Set aero hangars.....	46,989.95	51,678.00	98,667.95	11,332.05	110,000.00
6. Repairing seamen's quarters.....	31.01		31.01	4,568.99	4,600.00
7. Motor truck.....				1,350.00	1,350.00
8. Motor-testing plant.....	1,167.58	2,036.00	868.42	14,131.68	15,000.00
10. Operation, etc., of aeroplanes.....	53,538.05	235.00	53,773.05	46,226.95	100,000.00
11. Operation, etc., dirigible and balloon.....	26,784.65		26,783.65	3,216.35	30,000.00
12. Cost of air craft.....	60,321.75	362,397.30	422,719.05	45,928.85	468,647.90
30. Experiments, aero station.....	11,267.67		11,267.67	3,732.33	15,000.00
31. Experiments, miscellaneous.....	12,456.53		12,456.53	2,543.47	15,000.00
32. Cost of buildings, aircraft stations ¹					
Undistributed balance.....	65,586.10		65,586.10		65,586.10
Total.....	296,143.01	483,305.66	779,448.67	220,551.33	1,000,000.00

¹ No allotment.

The next is an indorsement dated March 21, 1916, relative to appropriations for aeronautics and proposed naval aviation corps, proposed by the General Board to the Secretary of the Navy. The General Board recommended \$5,000,000. The department recommended \$2,000,000. We got \$3,500,000. This indorsement reads as follows:

B-2-5.

[Second indorsement, G. B. No. 449. (Serial No. 504) Mar. 21, 1916. E. L. B.]

From: President General Board.

To: Secretary of the Navy.

Subject: Relative to appropriation for aeronautics and proposed Naval Aviation Corps. Returned.

2. The General Board recommended an appropriation of \$5,000,000 for aeronautics for the fiscal year 1917, because—

First, the existence of a large fund available until expended as circumstances warrant would do much to encourage invention and the development of naval aeronautics.

Second, it believed that as soon as the experimental development of engines and planes should reach a certain stage of efficiency a large portion of this amount could be expended to advantage immediately in equipping the ships of the Navy, advanced bases, etc., with a proper number of aeroplanes.

Third, that the development of the dirigibles may scarcely be said to have begun, and it was anticipated that representatives of this type would be ordered for trial during the coming year at a considerable expense. Should the trial work take more time than was hoped by the board, nevertheless the unexpended balance of the appropriation would remain available.

3. The General Board believes that \$2,000,000 for the next fiscal year is not an adequate sum for the development of aeronautics. In November last the General Board recommended \$3,000,000 for the current year to maintain the station and experimental work and one million for each of the succeeding four years. It regarded its own estimate as small at the time, but was anxious to place as much as possible of the \$5,000,000 sum upon approved types. The General Board now believes in the light of further evidence from abroad that \$3,000,000 per annum will be none too much for current expenditure upon aeronautics and that next year it may have cause to recommend still higher expenditures in this direction.

Here is a letter I referred to, to get the basic program from the General Board, summing up my numerous queries. This is to the General Board from the Secretary of the Navy. [Reading:]

B-2-6.

NAVY DEPARTMENT,
Washington, April 12, 1916.

To: General Board.
Subject: Aeronautics.

1. To enable the department to undertake the orderly and systematic development of aeronautics in the Navy the General Board is directed to make a study of the possible naval uses of aircraft, recommend the most desirable types of such craft, recommend the general requirements for each type, and to outline their military functions and characteristics.

That is along the lines of the duties of the General Board with reference to the characteristics of ships. Here I wish to say that the policy recommended by me and adopted by the department was that aircraft was simply another type of naval craft. If we needed them at all, we needed them to make up a part of a team, the same as we needed the destroyers or scouts or cruisers or battleships; or, if they were such a peculiar animal that they could not take their place in the fleet as a ship, and be associated with the rest of the unit and as a part of the team, they did not belong in the Navy; they were foreign matter. And in that connection the organization that we operate we assign the parts, just the same as we do with the ship. The hull goes to Construction and Repair; the machinery goes to Steam Engineering, to the machinery bureau; navigation instruments are provided by the Bureau of Navigation; and all the way through it is handled exactly like any other naval craft; and I believe that that should so continue, and that this proposition of an aviation bureau separate and distinct will lead to a separation, excess overhead charges, and inefficiency, and it will demoralize it. If it is such a peculiar breed of animal that it has to have special provisions made of it, it does not belong in the Navy. If we can not use it as we do other craft, as a part of the fleet team, then it is not our job; and I believe thoroughly that it is our job, and I believe there is a big future for it. But do not let us get a little air navy separate from the rest of the Navy, or it will not hook up with the fleet. It will always be a star player, but it will not work in with the rest of it.

The CHAIRMAN. You believe in some kind of cooperation between the Army and Navy in the matter of construction?

Admiral McKEAN. Oh, yes, sir; we provided for that. [Continuing reading:]

2. The General Board will also give its opinion of the relative importance of the various types, recommend the relative numbers, and the order in which the types should be developed to meet our strategical and tactical demands.

3. As early a reply as practicable is requested, in order that the program for the coming year's developments may be laid out.

JOSEPHUS DANIELS.

The next is a memorandum dated May 15, 1916. This was a memorandum from Lieut. Bronson. He was giving me the status as of that date, May 15, 1916, of all parts of it, and to show the stage of development we had reached, where we were going to start from to go on. This memorandum follows:

B-2-7.

MAY 15, 1916.

Memorandum for: Capt. J. S. McKean, United States Navy.
Subject: Aeronautics.

1. The flying school has now been fully established at the Pensacola Aeronautic Station and officers and enlisted men of the Navy are being trained as rapidly as possible consistent with the facilities of the Navy Air Service. Also, the officers of the Coast Guard Service are now undergoing a course of instruction at this school, and one officer of the Naval Militia has received a short course of instruction.

2. The aircraft repair facilities at this station are being developed; and it is hoped that in another three months the station will be in a position to undertake the construction of one or more aeroplanes.

3. Effort has been and is being made constantly to search out and test the various types of aeroplanes with the view of finding one or more types that are suitable for service conditions. The delay in the manufacture of these aircraft has been very detrimental to the service. Of all those aircraft contracted for during the present fiscal year, not one has been delivered less than 60 days overdue on the contract time, except a few that were ordered according to old plans.

4. A small nonrigid dirigible is nearing completion and it is hoped will soon be ready for preliminary trials. The company manufacturing this dirigible has shown great reluctance in conducting certain obviously necessary trials of the machinery. The company manufacturing the floating hangar for this dirigible is long overdue on delivery, but it is expected that delivery will be made in the very near future.

5. The Bureau of Construction and Repair has designed and is constructing at the Washington Navy Yard, a large twin engine aeroplane. It is hoped that this machine will prove to be fit to go to sea.

6. Various motors have been contracted for and tested at the Aero Motor Testing Laboratory recently completed at the Washington yard. Of four motors recently tested, three failed to meet the requirements of the service and have been rejected. In order to be able to go to sea with reasonable safety in an aeroplane, it is absolutely essential that reliable motors be available. No such motor is now on the market in this country, and so far as is known, none in other countries. It is believed, however, that the solution of this problem is in sight. Until recently few real gas engine designs has gone in for the development of aeronautic motors. The automobile field was sufficient to keep them busy. Recently, however, a number of men prominent in the development of automobile and motor boat engines have gone in for aeroplane engine designing and manufacture.

7. Next after the motor question, the most difficult problem that the Navy Air Service is confronted with is the development of a seagoing pontoon for aeroplanes. Trials of the various types turned out by the different manufacturers indicate more and more that the solution of this problem will come only from the Navy Department. The Bureau of Construction and Repair has already developed several types of floats, two of which have proved superior to any type of float tried out by the Navy Department, manufactured by any private corporation or individual. It is hoped that the type of pontoon that will soon be tried out on the large aeroplane nearing completion at the Washington yard will prove to be a seagoing pontoon.

8. The kite balloon was received too late to be taken on the *North Carolina* for tryout as a spotting station. This, however, will unquestionably be tried out at the next target practice.

9. Nothing has been done relative to dirigible design because of the lack of personnel available to devote their time to the study of this, in itself, separate and distinct subject.

10. A launching device structure for the *North Carolina* has been designed and manufactured and is now being set up on the *North Carolina* at the Pensacola Aeronautic Station. Plans have been developed and construction is now under way on launching device power units capable of handling larger and heavier aeroplanes. Plans for the track structure for these larger units are being developed at the Puget Sound and Portsmouth Navy Yards, where preliminary work relative to the installation of these launching devices on the *West Virginia* and *Washington* is under way.

BRONSON.

The next is from the Chief of Naval Operations to the Secretary of the Navy, dated May 25, 1916. [Reading:]

B-2-8.

MAY 25, 1916.

From: Chief of Naval Operations.

To: The Secretary of the Navy.

Subject: Change of orders of the commander of the Air Service and the *North Carolina*.

1. In view of the approaching departure of the *North Carolina* from Pensacola, equipped for service with the fleet, and the impracticability of an officer at sea successfully directing both sea and shore activities, it is recommended that orders be issued to Capt. Mark L. Bristol, United States Navy, relieving him of the responsibility of the "supervision over all aircraft and aircraft stations, and the further development of aeronautics in the Navy," and that new orders be issued to him as commanding officer of the *North Carolina* and supervision of the development of aircraft and aircraft service with the fleet, to take effect June 1.

2. It is the department's policy to equip with aircraft the vessels that would be used as scouts as rapidly as possible, and it is expected that this will develop into a scouting division of the fleet equipped with aircraft.

3. The duties of the commander of the *North Carolina*, in addition to the command of the ship, would comprehend the following:

(a) Coordinate the use of aircraft with the fleet.
(b) Assist in the development of aircraft by constructively criticizing all types issued to the service, with recommendations as to changes of design, etc., to prepare and fit them for the service, make reports of operations, etc., to the bureaus concerned via the office of the Chief of Naval Operations.

(c) Originate suggestions for experiments, modifications in design of machinery, hulls, navigational instruments, etc., communicating the same to the bureaus concerned via the office of the Chief of Naval Operations.

(d) Submit to the Chief of Naval Operations recommendations relative to the types of aircraft best suited to meet the requirements of the fleet.

(e) Make reports on the adequacy of the training of the officers and men sent to the ships from the aeronautic station.

W. S. BENSON.

This separates the shore from the sea and gives Capt. Bristol his separate mission to coordinate the aeronautics with the fleet.

We were trying to establish the air service with the fleet, and to keep theory pure and simple from controlling the theoretical construction, we were getting back from the fleet, from the practical man, criticism, suggestions, and recommendations he had gotten from the use that we wanted to put these crafts to; and I think that shows the constructive lines along which we were trying to work.

The next is a report on the development of aeronautics dated June 24, 1916. This in answer to the request of the Secretary that the General Board prepare a report on the development of aeronautics, etc. It goes on and very fully and completely discusses the kind of craft we needed, how many, where they would be used and how they would be used, and so on; and I as stated before, it gave us a policy and plan along which to work to systematize our aeronautical efforts. The eighth paragraph of this report was as follows:

From the experience of the war, it seems that aircraft are used for the following naval purposes:

Reconnaissance.

Patrolling in advance of the fleet.

Fleet and ship fire control.

Fighting other aircraft.

Attacking other submarines.

Attacking surface craft.

Coast patrol.

Raids upon hostile coasts.

Then they considered the relative suitability of the different types of air planes to dirigibles. They go into great details even as to different types and weights of machines. They had all the information and they had all the foreigners and all that our people had before them, and it was the first complete study made—well, not the first. There was one before. But this is the most complete study up to date of the naval uses practicable for aircraft or desirable.

DEVELOPMENT OF AERONAUTICS.

JUNE 24, 1916.

From: Senior member present.

To: Secretary of the Navy.

Subject: Development of aeronautics; military functions and characteristics of aircraft.

Reference: Department's letter No. 26983-638 Mat., of April 13, 1916.

The development of aeronautics in the United States Navy has hitherto been confined to the development of material and the technique of flying. Study of the proper strategic and tactical employment of the aeronautic arm of the Navy has been given little attention. Abroad, the war has developed aeronautics very greatly and very rapidly both in technique and in tactics and strategy. We are, therefore, obliged for the present to follow the lessons of the war. But in applying these lessons we must not neglect to make due allowance for the special conditions which on one side apply to the present war and on the other side apply to the special situation of the United States in any probable war.

2. In analyzing the qualities of aerial craft and in comparing them with those of surface and submarine craft it is at once apparent that aircraft differ from surface craft by the capability of moving at speeds very much higher than can be reached on the surface of the water. On the other hand aircraft can transport only very small loads compared with those of surface craft. At the present day, warfare in general is marked by the expenditure of great mechanical power in destructive effort. War is an affair of great masses, both of personnel and of material. Although the aeronautic arms need a considerable personnel in the aggregate, yet each unit can deal only with comparatively small weights, in the way of motor power and armament. It follows that aeronautics does not offer a prospect of becoming the principal means of exercising compelling force against the enemy.

3. The characteristics of the aerial military service in which it is superior to surface forces ashore and afloat are its high speed and its power of withdrawing vertically from surface observation and surface attack. The great speed of the aeronautic service indicates the chief line of its employment, namely in the obtainment of information. The principal roles of the air service appear to be found in the various forms of reconnaissance including strategic scouting, in tactical patrol and picketing and in spotting and other methods of fire control.

4. In the execution of these various activities it may be necessary to overcome resistance of hostile aircrafts. Although battle is a secondary function of naval aircraft, nevertheless, they should have some fighting capacity, and at times some of them must be devoted to combatant support of the reconnoitering force. Further, if the enemy is not completely master of the air it will frequently be possible for aircraft to utilize their very moderate lifting and transporting capacity by dropping explosives without prohibitive danger of counter attack from the surface.

5. In accordance with the above considerations, the war has developed aircraft in three chief types, the first where some form of scouting has been the objective, the second where combatant ability in support of the reconnaissance service has been the primary feature and the third where freight capacity for carrying explosives has been prominently developed. Each of these principal types has had various subdivisions and modifications as the result of varying conditions and growing experience, but the classification seems a fundamental one.

6. In carrying further our examination of the types of aircraft suitable for the naval service we must now take note of the two types of aircraft; those heavier than air and those lighter than air and consider their special characteristics. Both are developing rapidly, but there are differences in the capabilities of the two types which those best qualified to judge regard as essential and permanent.

7. The heavier-than-air machine, the aeroplane, has inherent possibilities of superior speed but can not carry equal weights. The lighter-than-air machine, the dirigible, can not be driven as fast as the fastest aeroplanes, but its greater lifting power may be utilized to give it either greater radius of action, greater armament or greater freight

capacity for bomb carrying or other purposes. Further, it can remain at rest on station. The lighter-than-air machines have the advantage that changes of altitude consume their stores of gas and ballast, so that they thus lose maneuvering power if forced to several marked changes of altitude in opposite directions. With the large size of the lighter-than-air machines are the attendant disadvantages of great cost and size of target and difficulties in housing, launching and landing from flight.

8. From the experience of the war, it seems that aircraft are used for the following naval purposes:

Reconnaissance.

Patrolling in advance of the fleet.¹

Fleet and ship fire control.

Fighting other aircraft.

Attacking other submarines.

Attacking surface craft.

Coast patrol.

Raids upon hostile coasts.

9. We must here consider the relative suitability of the different types of aeroplanes and dirigibles. Where great speed is the principal desideratum, aeroplanes are the choice. Where combatant strength and carrying power and endurance in the air are more important the dirigible is preferable, but its advantages are modified by size and difficulty in launching. The merits of the dirigible have been somewhat overlooked in this country because the comparative cheapness of the aeroplane has given it vogue as an instrument of sport and it has been forced ahead by manufacturers seeking profit and by sportsmen, whereas the dirigible having no advertising claque has been comparatively undeveloped. The war, however, has forced the belligerent nations to develop all sizes of dirigibles for various services. As this country has as yet done nothing to develop dirigibles, the necessary steps at present are experimental ones only.

10. The Navy should build experimental dirigibles of the various types and train a personnel, and after three or four years of trial and error it will then be possible to see what such craft can do tactically and strategically and along what lines they should be developed for service. The General Board can not too strongly urge the necessity of conducting very extended experiments with dirigibles now. In so doing the General Board recognizes the possibility that it may turn out that the condition and geography of the United States are such that dirigibles will be of little value to the United States Navy. Nevertheless, the contingency must be accepted, for the chance of success is well worth the expenditure, and the results possible merit thorough investigation. The General Board recommends the immediate construction of three small nonrigid dirigibles of between 1,600 m³ and 2,000 m³ displacement. These sizes are accepted standards abroad for short-distance patrol work.

The General Board also recommends one rigid dirigible of about 11,000 m³ and one semirigid dirigible 11,000 m³. This is about the size of the early Zeppelins. The experience gained by American aeronautics and manufacturers will then be applied to advantage in designing dirigibles suitable for naval service. In this connection, the General Board desires to point out that not only are manufacturers in this country ignorant of approved methods of the construction of dirigibles but they have little working knowledge of the basis of airship construction and use. These elements of airship construction may be classed broadly under four heads; namely, motors fabrics, hull framework, and production of gas. It seems to the General Board that it would save time and expense to initiate experimental work separately on each of the three latter branches. Experiment should determine the best way of producing hydrogen on a large scale. Similarly, experiments with gas-tight fabrics do not need large balloons to carry out; the development of such material may be done without reference to great dirigibles. As to the hull framework, this is built up of very light girders combined to form the complete frame. Experiments should be carried out to determine the best way of building up these individual girders and of attaching them to each other. Only in regard to motors is progress evident.

11. Owing to the great technical lead which aeroplane service holds over dirigible service in this country, the Navy is much more ready to indicate its lines of development for immediate use. The manufacturing and designing skill of the country can turn out aeroplanes such as are desired. The reliability of the engines, however, is unfortunately not yet satisfactorily assured. As a basis for discussion we may take the three types of naval hydro-aeroplanes which have developed during the war.

¹ Fleet attack on Lowestoft at end of April, 1916, was preceded by Zeppelins.

We may also consider four chief Army types, namely, bomb-dropping, spotting, battle, and reconnaissance machines.

12. In deciding upon our aeroplane service we must first see what aeroplanes can do and then decide how we shall render profitable such services as they can offer with reference to the geographic and strategic situation of the United States. The size, speed, endurance, and load of aircraft are all interrelated and can be modified within limits. Hydroaeroplanes to be carried on board ships are limited in size by requirements of launching and recovery. A 4,000-pound machine of 57 feet span is about as large as we can contemplate for ship's use at present. From a machine of 4,000 pounds total weight we may expect to get from it, according to its design, a moderate speed of 70 miles and about 11 hours endurance, or a faster machine of 80 miles with 7 hours fuel endurance, both types to carry a crew of two, with wireless, etc.

13. The primary work of the hydroaeroplane is for reconnaissance, either long distance strategic work, or short distance tactical work, and for spotting and fire control. During the current war armies have found the aeroplane service indispensable. Navies have as yet obtained smaller returns from their aeroplanes in strictly naval employment. The comparatively small returns from naval air service seem due rather to the inherent differences of land warfare and sea warfare than to lack of energy in developing the naval aeroplane service.

14. Comparing strategic scouting on shore and strategic scouting at sea it will readily be perceived that the capabilities of the aeroplane are much greater on shore. This is owing to three things. First, it is easier to get off the land and to alight in bad weather than it is to get off the water and alight, because in bad weather the sea is affected and adds to the aviator's difficulty. Second, a plane making an overland trip has land marks both ways, and can land anywhere behind its own lines, whereas at sea the plane is without land marks, yet must return to its mother ship which must stop to pick it up and may find such a stop very embarrassing. Third, in land warfare the movement of an army is very slow. An army moves 12 or 15 miles a day; a forced march may be 25 miles. A fast aeroplane moves 80 to 100 miles an hour. Consequently, a reconnoitering aeroplane in a 3-hour nonstop flight can search out a belt of territory which can not possibly be crossed by army in less than 5 days. The high speed aeroplane of 4 or 5 hours endurance is therefore capable of giving most valuable strategic information some days ahead of hostile contact of the armies. Upon the sea, however, where fleets may move as much as 20 miles an hour, and usually will move at not less than 15 miles, the value of strategic scouting by aeroplanes is necessarily less than on land. Let us suppose that a fleet is advancing and endeavoring to keep a scouting line of aeroplanes as far ahead of it as possible. Let us consider that the fleet has available three types of 4,000 pounds aeroplanes whose speed and endurance are respectively 90 miles (statute) per hour 2½ hours, 75 miles per hour, 10 hours; 60 miles per hour, 20 hours. Machines of type number one are sent up at a given hour, advance 115 sea miles and return 78 miles, meet the force which sent them out and report all clear.

If this main body continues to advance, it may meet an enemy also advancing any time after about two hours. Evidently, the aeroplanes returning at sundown can not have searched out the whole night zone. Doing the same with aeroplanes of No. 2 type, 75 statute miles, 10 hours, they will advance 400 sea miles, and return 250 miles and if they meet their main body at sunset, they will also have failed to give assurance of a clear night zone. Finally if machines of the third type, of 60 statute miles (52 sea miles), are sent out they will advance 670 sea miles and return 370 miles. If they meet their main body at sunset the next day they will give assurance of a clear (12-hour) night zone provided the rate of approach of the two hostile forces does not exceed 31 knots. At this low maximum speed of flight (60 statute miles) the aeroplane has no great superiority of speed above that of ordinary winds. Its full speed is also its economical speed. A 60-mile aeroplane therefore seems to have as low a speed as is permissible for strategic scouting. This speed gives the maximum radius, which latter is scarcely enough to maintain a scouting line at an adequate distance in front of the main body. The conclusion to be drawn is that with aeroplanes of a size convenient for ship's use, a fleet can not maintain a serviceable scouting line by hydro-aeroplanes sent out from the main body of the fleet. Strategic scouting is primarily an affair of scout ships. However, if the aeroplane can not be relied upon to maintain an advanced scouting line thrown out from the main body, it may perhaps be an important assistance to ships which themselves are maintaining a scouting line.

The first thing to consider is how far an aeroplane can see. We know from Table 6 of Bowditch that on clear days the distance of the visible horizon is proportional to the square root of the height of the observer. But there is always more or less absorption of light in the passage of the visual ray through the atmosphere, and even on bright,

sunshiny days, this absorption frequently obscures objects well within the horizon of an observer on a ship's bridge. This absorption of light in the atmosphere is according to the general exponential equation yc^{x-1} where x is the distance from the object y is the amount of light which gets through to the point x (being unity at unit distance) and c is a fractional constant depending on the state of the atmosphere. It is evident that this rule for the absorption of light will operate very strongly to cut down the range of visibility from aircraft in case the air is not of the clearest. Let us consider a bright, fine day such as are common on the Atlantic coast of the United States when a ship can not be seen beyond 10,000 yards. On such a day an aeroplane gradually rising above the ship sending it up will not extend its circle of visibility as it increases its height until it rises into a clearer stratum of air. If upon reaching a given height, h , it passes up into a perfectly clear stratum, the radius, of its circle of visibility thereafter will begin to increase in the same ratio as it increases its height above the sea level. Putting the idea into an equation (neglecting small effects of refraction), if h is the height of the lower stratum, and d is the distance to which the vision will penetrate through the lower stratum, then when the aeroplane has attained the height x the range r of visibility will be $r = \frac{dx}{h}$. If h is 500 feet and d is 10,000 yard then 2,000 feet height will give a range of visibility of only 20 sea miles, whereas in clear weather it would be 51 miles. If h is 1,000 feet and d 10,000 yards then the range of visibility for 2,000 feet height will be only 10 miles.

Moreover, it is the testimony of flyers that when rising above the hazy stratum into clear air the upper surface of the haze may act as a reflector, so as to prevent penetration of vision below the haze unless the direction of vision is considerably inclined to the surface. It seems, then, that aircraft frequently will not be able to command great areas of visibility merely by rising to great altitudes. When the atmosphere is not extremely clear the aeroplane will preferably aid the scouting ship it accompanies by using its speed to range from side to side of its parent ship as a dog runs by the side of its master.

15. The various methods of scouting applicable to this situation are laid down in the works on the subject. The effect of using aeroplanes on the scouting line when conditions are favorable will be to increase the permissible distance between ships maintaining the scouting line. Thus if it is necessary to keep scouts at a distance not greater than a miles to prevent unobserved passage by the enemy, then with aeroplanes each covering the front of its own parent ship it may be possible to maintain them apart at an increased distance na . Under favorable conditions n might be as much as 3.

16. It thus appears that aeroplanes may be used in strategic scouting to aid and assist the ships which form the basis of the scouting force and the main reliance of the commander in chief. For this purpose it would be objectionable to employ aeroplanes of the highest speed and low endurance, as such machines would too often check the movement of the scouting line for resupplies. Too much endurance at the expense of speed is also objectionable. Scouting is not efficient at night; therefore an endurance for all-day flight is enough. This will give a maximum speed of 70 or 75 miles per hour.

17. The next point to consider is tactical or short-range scouting, including spotting and fire control.

18. An aircraft sent aloft for spotting has two advantages over spotting directly from the firing ship. The parallactic angle due to elevation enables more certain observations to be made as to range, and if the range approaches the limits of clear vision for the day, the spotting aeroplane can approach the enemy, thus increasing distinctness of vision.

19. On the other hand, the transfer of the spotter to a point outside the ship introduces administrative difficulties in the chain of command between the spotters and the gun which in some conditions may go far to neutralize the direct advantage of spotting from the aeroplane. Apparently this difficulty was far from negligible last winter in attempting fire control by flyers in experimental practice in the Atlantic Fleet.

20. When we pass from single ships to the control of division of squadron firing the difficulties of spotting from the air will be much increased, owing to the confusion in identifying salvos and in getting communication through. Nevertheless, it is very possible that aircraft may aid in spotting. Even when not doing much in this direction, fliers will be able to detect changes of the enemy's course, the appearance of submarines, the charge of torpedo boats, the moment of launching hostile torpedoes, etc., better than ships on the surface can do when engaged in battle. Aeroplanes can also do general short-range scouting for a distance of 20 to 30 miles from the force they attend.

21. For all these duties, the endurance should be measured by the period of day-light. An areoplane sent up either to spot or to watch for submarines should not embarrass and delay her mother ship by coming down at frequent intervals for re-supply. Neither must she sacrifice speed unduly. She must be much faster than ordinary winds. She can do little or nothing effective at night. She must be readily handled on board ship.

22. These considerations bring us to the conclusion that the characteristics of the hydroaeroplane for tactical scouting, spotting, etc., should be the same as for strategic scouting, namely, 4,000 pounds full load, 75 statute miles speed, endurance 10 hours at full speed and over 12 hours at economical speeds of 60 miles.

23. We must now pass to the examination of the practical limitations which will be placed upon the theoretic possibilities of aeroplane service as outlined above.

24. For our present needs in the Navy we may omit the heavy-weight carrying type for bomb dropping, since inaccuracy in aiming forbids it to render valuable service against anything but large land targets. When bomb dropping becomes sufficiently accurate for naval use it will be best executed from dirigibles whose size will permit them to carry a large supply of bombs. Combat hydroaeroplanes for use with the fleet and using the fleet as their base do not seem necessary at present.

25. The Navy must not be rendered too sanguine by the accomplishments of the aeronautic arm of the Army. Aeronautics is undeniably dangerous, and no risk should be run for which the return is inadequate. The risks of aerial battle will always be encountered with alacrity if the material equipment is substantially equal to that of the enemy, but aside from the dangers of hostile encounter the navigational risks of aeronautics at sea are far greater than those on shore.

26. An aeroplane putting off from a ship at sea and losing sight of her may readily be lost, whereas an aeroplane leaving a given station can land anywhere and get information; or if in hostile territory, a long continued flight in the proper direction must bring one to friends. Over the land, an aeroplane forced to alight can usually do so, and is safe, whereas a hydroaeroplane forced to alight on the sea may be helpless and sacrifice the lives of all concerned.

27. The responsibility resting upon those requiring service of hydroaeroplanes in war is therefore much greater than upon those controlling the land service. Moreover, a few errors in judgment on the part of commanding officers and consequent unnecessary sacrifice of aviators will affect the morale of the aviation service in general, and go far to destroy its usefulness.

28. For all these reasons, it seems that the Aviation Service, as attached to the fleet, will not be of as great importance to the Navy as its Aviation Service is to the Army. There is no substantial reason apparent at the present time to yield to the clamor of the extremists who assert the supremacy of aeronautics as a naval arm. On the contrary, the Aviation Service with the fleet seems likely to be confined to a subordinate rôle.

29. Aviation, however, is developing in its technique and must not be overlooked or neglected while in its present stage. It seems that aviation afloat will be developed on a scale amply sufficient for the present and for the next two or three years if the department forms a standard ship division of two machines, two commissioned officers, and four petty officers (all trained as pilots and observers) and four seamen.

30. All battleships of *Delaware* and later classes may have one of these divisions, and scout ships should have two of these divisions. In its general maintenance such a ship's aviation division will depend upon the resources and support of the ships, as is the case with any other ship's division.

31. It yet remains to mention the possibilities of kite balloons and their desirability for naval use. Kite balloons are captive, small in size, without motive power, and are so shaped, with such appendages, that the pressure of the wind acting against the anchor rope is unable to beat them down to the ground. Their displacement is about 800 m³. They carry two observers and usually do not ascend above about 500 feet. They are used for fire control and for spotting. They can not be used from combatant ships, as their presence would be very impracticable. For naval use they would need special carrier ships, and under suitable conditions they might prove serviceable, and so the British fleet found them at the Dardanelles for bombarding the Turkish positions. For use with the fleet in strictly naval actions it is not probable that they would prove valuable. Nevertheless, the General Board recommends that the Navy procure one and ascertain its value to the Navy.

32. For aeroplanes working as coastal patrols the situation is very different from that confronting ship aeroplanes. Considering the aeroplane as an element in the coastal system of security and information, we must first view this service as a whole and decide what is to be expected of it and then see what part the Aviation Service is able to play in the execution of the general plan.

33. The coastal patrol service has three duties it may be called upon to perform:
 (a) To watch for the enemy's appearance on the coast and note the activities in which he engages.

(b) To keep open a line of communication along the coast free from enemy's mines, etc.

(c) To maintain the enemy's auxiliary craft (both surface and submarine) at a distance from the principal ports so that naval and merchant shipping may get sea room and maneuvering position before encountering the enemy.

34. This coastal service will be local in its nature; its organization and administration will be regional, based on the naval districts. The shipping will consist of yachts, torpedo boats, and such other fast small craft as can be obtained to act as patrols, mine layers to protect harbors and roadsteads, tugs and trawlers to sweep for hostile mines, coast submarines to attack the enemy.

35. To aid all these craft in getting information, an air service will be of value. As has already been stated, the United States has not yet developed dirigibles to a serviceable stage. For some years our coastal air service must consist of hydro-aeroplanes only.

36. They should be able to carry two observers, a gun and a wireless outfit.

37. In coastal patrol, a strategic limit is set by the night zones which it is possible for the enemy to traverse under cover of darkness and appear at daylight. For the very fastest craft this may be as much as 400 miles, but for a large mixed force we may take it as not in excess of about 200 miles. Our outer line of patrol ships will be maintained at this distance from the principal ports. The aeroplanes should be able to supplement their patrol (weather permitting) by the rapidity of their flight along this boundary line. If we assume that they make their trip at reduced power unless an emergency is encountered and they stay on station half a day, they will need about 12 hours endurance at 60 miles an hour plus some reserve fuel to push back against an unfavorable breeze should such occur.

38. The speed of such craft should be 80 miles per hour. This is not extreme, but is greater than is likely to be found in hostile ships' aeroplanes.

39. Such a machine will weigh about 7,500 pounds, will have a radius of about 800 miles at full speed and of about 925 miles at 60 miles speed. It will carry a crew of two men, a machine gun and wireless, and a small available carrying capacity in addition. A 10,000-pound machine of same speed, crew, and outfit could do nearly 900 miles at 80 miles per hour or nearly 1,150 miles at 60 miles speed.

40. To patrol the immediate neighborhood of the coast and act as lookout for the mine sweepers and other inshore patrols the endurance may be much less, as the craft would only go 20 or 25 miles offshore to be on station. Two hours run at full and six hours at half power would be sufficient endurance. As these craft would be auxiliaries to the patrol boats and would never be far from them, they could depend on their support if attacked by hostile aeroplanes. A moderate speed of 75 statute miles would be enough for these conditions.

41. Such a craft would resemble in characteristics the 4,000-pound type for ship use already discussed. As her radius would be less, the saving in full load weight might be utilized to carry small bombs to attack submarines.

42. The General Board recommends that the standard hydroaeroplane division for coastal patrol consist for the present of three 7,500-pound machines and four 4,000-pound machines with a personnel of each division consisting of 8 commissioned officers and 8 petty officers as fliers and the necessary machinists and other enlisted men as mechanics and helpers. Reserves of machines should be established as types are perfected. For the present one of these hydroaeroplane divisions should be located in each naval district (except those on the Great Lakes) and in the Canal Zone. Pensacola will be the school station as at present.

43. The General Board recommends that the aeronautic training station should be directed to train aviators to its capacity. The General Board can not too strongly urge the great desirability of relying solely upon officers and men trained in the Navy and fully acquainted with the peculiarities of naval duties in general as the material from which to develop naval fliers. Dependence upon cross country fliers for sudden transformation into spotters and professional observers for naval work will, in the opinion of the General Board, result in absolute inefficiency.

44. In conclusion, the board summarizes its recommendations as follows:

Dirigibles.—(a) Experimental development of essential parts of dirigibles—motors, hull frame work, gas-tight fabrics, and gas production.

(b) Construction as early as possible of one small rigid dirigible, one small semirigid dirigible, and three nonrigid dirigibles.

Hydro-aeroplanes.—(c) Adoption of 4,000-pound 75-mile hydro-aeroplane to carry two in crew with machine gun and wireless for ship use and short-range coastal work.

(d) Adoption of 7,500-pound 80-mile hydro-aeroplane to carry two in crew, with machine gun and wireless for long-range coastal patrol work.

(e) To establish ship divisions of hydro-aeroplanes for service on board battleships of Delaware class and later, and on board ships of scouting force.

(f) To establish one coast patrol division of hydro-aeroplanes in each naval district (except those on Great Lakes) and in Canal Zone, to be increased later as may prove advisable.

Kite balloons.—(g) To build one kite balloon for trial.

Previous recommendation.—(h) The General Board reaffirms the statements made in its second indorsement (G. B. No. 499, Serial No. 504) of March 21, 1916, which indorsement should be read in connection with this letter.

CHARLES J. BADGER.

Next is to the Secretary of the Navy from the general board, dated November 15, 1916, on the subject of the number of aircraft for our service. They debate there the number necessary for the present fleet, for future ships, for land service and coastal patrol, experimental, school, machines and reserves, summary and estimated requirements. They give the estimated numbers in each case. This memorandum is as follows:

B-2-10.

GENERAL BOARD,

Washington, November 15, 1916.

G. B. No. 449.

(Serial No. 589-t.)

To: Secretary of the Navy.

Subject: Report in accordance with paragraph 3 of department's letter No. 3238-1 of August 8, 1916, number of aircraft for naval service.

References: (a) General Board's letter No. 449 of June 24, and characteristics of aircraft; (b) General Board's letter No. 403 of August 23, 1916, defense of naval shore stations against aircraft attacks; (c) General Board's indorsement No. 449 of August 4, 1916, recommending aeronautic units for advanced base organizations.

The General Board submits herewith its recommendations and characteristics regarding the number of aircraft as required by department's letter No. 3238-16 of August 8, 1916, paragraph 3.

2. Attention is invited to prior recommendations of the general board regarding aircraft construction contained in above references. Later information as to the limitations in the use of aircraft from cruising vessels, and the advisability of obtaining seaplanes of a size which can be more readily handled on board ship leads the general board to the conclusion that a small, high-speed machine is preferable to the 4,000 pound machine previously recommended for ship's use. This type should weigh about 1,200 to 1,300 pounds, have a span of about 24 feet, and a speed of about 100 miles per hour. For coastal scouting, the general board believes that a seaplane of about 5,000 to 6,000 pounds, and an endurance of about six hours, is a more suitable type at present than the 7,500-pound machine previously recommended, but experimentation with, and development of, much larger seaplanes for coastal use, for bombing dropping, etc., should be encouraged.

3. Developments abroad indicate that the small, nonrigid dirigible is valuable for coastal scouting; the general board has therefore included one such machine in each coastal patrol division.

4. The general board makes the following estimates of the probable requirements for the Navy for aircraft:

(a) For the present fleet: For each dreadnought battleship now built—2 seaplanes, 12 ships, 24 seaplanes; for each armored cruiser now built—4 seaplanes, 9 ships, 36 seaplanes; for each merchant scout of the "C" fleet—4 seaplanes, 32 ships, 128 seaplanes; total for fleet, 188 seaplanes.

(b) For future ships: Dreadnaughts building—2 for each of 5 ships, 10 seaplanes; dreadnaughts authorized—2 for each of 10 ships, 20 seaplanes; battle cruisers authorized—4 for each of 6 ships, 24 seaplanes; scouts authorized—4 for each of 10 ships, 40 seaplanes; total, 94.

(c) For land service: 1. For aviation company of advanced base force—4 seaplanes, 2 airplanes, 2 kite balloons.

(d) For coastal patrol: One division of 7 seaplanes and 1 nonrigid dirigible for each naval district (except Great Lakes), Panama, Guam, Philippines, Guantanamo, and Culebra (16 districts). (Number of districts subject to revision)—112 seaplanes, 16 nonrigid dirigibles; for defense units against aircraft attack on naval stations, units to consist of 2 seaplanes, 2 airplanes, 1 kite balloon (13 units). (Number of units subject to revision)—26 seaplanes, 25 airplanes, 13 kite balloons.

(e) Experimental—1 rigid dirigible.

(f) School machines as required.

(g) A reserve of 25 per cent of all classes of aircraft.

Summary of estimated requirements.

	Small sea planes.	Large sea planes.	Air- planes.	Kite bal- loons.	Non- rigid dirigi- bles.	Rigid dirigi- bles.
Battleships built.....	24					
Armored cruisers built.....	36					
Merchant scouts.....	128					
Battleships, battle cruisers, and scouts building and authorized.....	94					
Advanced base.....		4	2	2		
Coastal patrol.....		112			16	
Naval station defense.....		26	26	13		
Experimental.....						1
Total.....	282	142	28	15	16	1
25 per cent.....	70	35	7	4	4	
Grand total.....	352	177	35	19	20	1

School machines as required.

5. The general board recommends:

(a) That the following be constructed at once: 75 small seaplanes for present fleet; 75 large seaplanes for advanced base, coastal, patrol stations, two naval station defense units; 7 small airplanes for advanced base and two naval station defense units; 5 kite balloons for advanced base and two naval station defense units; 20 nonrigid dirigibles for coastal patrol stations; and 1 rigid dirigible for experimental purposes.

(b) That the following be constructed during the next two fiscal years: 80 small seaplanes for merchant scouts of "C" fleet each year.

(c) That small seaplanes be constructed, as needed, for supply on commissioning to battleships, battle cruisers, and scouts building and authorized.

6. The characteristics recommended for the various types of aircraft are inclosed.

(Signed) GEORGE DEWEY.

With reference to the cooperation between the Army and the Navy and the division of functions, we did not want to overlap and we did not want to duplicate efforts. We did not want to interfere with each other. As the result of a memorandum dated November 24, 1916, from the General Staff of the Army to the War Department, at the request of the Chief of Staff, they got a definite recommendation with reference to the respective areas of each, and so on. They took it up with us, and it finally resulted in a board.

Now, just to interrupt a moment there, here is a summary of November 27, 1916 (B-2-11). This is a summary of the aircraft in the naval service contracted for and in use at Pensacola aeronautic station, which shows that we had a total of aircraft of all kinds under contract of 100, we had already expended 25 in service, training, and so on, smashed up, so that up to that time we had purchased or contracted for 125 aircraft of various kinds.

The CHAIRMAN. That was November 27, 1916?

Admiral McKEAN. That was November 27, 1916. That is the summary taken from a memorandum by Lieut. Bronson to me for

my information as to the detailed status as to the number of machines etc.

The CHAIRMAN. And you say you have already put in a list showing what we had in April, 1917?

Admiral McKEAN. Yes, sir; that will come later.

The memorandum and the summary last above referred to are as follows:

B-2-10-1/2.

WAR DEPARTMENT.
OFFICE OF THE CHIEF OF STAFF.
Washington, November 24, 1916.

Memorandum for Chief War College Division.

The Chief of Staff desires a definite recommendation from the War College Division with regard to the following matters:

(a) The respective areas of responsibility of the Navy Department and War Department in defense against air attacks of shore stations in general and naval shore stations in particular.

(b) To what extent the general defense renders local defense against air attacks unnecessary.

(c) The methods of cooperation to be adopted by the Army and Navy in the development of general and local plans for this branch of defense, and for the exchange of ideas and reports on training of personnel and development of material for this purpose.

(d) The advisability of standardizing material used by the Army and Navy, respectively, for defense against aircraft.

Full consultation with the various bureaus of the War Department concerned should be held before arriving at and reporting definite conclusions.

WM. S. GRAVES,
Lieutenant Colonel, General Staff Corps, Secretary.

B-2-11.

NOVEMBER 27, 1916.

SUMMARY.

From the above it will be seen that there are in use in the Navy Air Service, contracted for, 100 aircraft, as follows: In use at Pensacola aeronautic station—aeroplanes, 12, lighter-than-air craft, 2; in use on board U. S. S. *North Carolina*—aeroplanes, 2; ready for service on board U. S. S. *Washington*, aeroplanes, 5; ready for service on board U. S. S. *Oklahoma*, kite balloon, 1; ready for service on board U. S. S. *Nevada*, kite balloon, 1; total, 23. Total serviceable aircraft, aeroplanes, 19; total serviceable lighter-than-air craft, dirigibles and balloons, 4; total, 23. Total aircraft contracted for and not delivered, undergoing inspection, test, etc., or rebuilding, 77; total of aircraft of all kinds, 100; total of aircraft expended, 25; total aircraft purchased of all kinds, 125.

This suggestion of a joint board to settle the policy between the Army and the Navy was so far as the Army was concerned, the Secretary of War to the Secretary of the Navy, December 26, 1916. I put these in to show the origin of that:

B-2-12.

NOVEMBER 29, 1916.

From: The Secretary of the Navy.

To: The Secretary of War.

Subject: Policy with regard to development of aircraft.

Reference: (a) Letter of Secretary of War of October 11, 1916.

1. I concur with you as to the necessity of establishing a definite policy in regard to the proper division between the Army and the Navy aerial activities, and defining the limits of these activities for each of the two services.

I have, therefore, appointed Capt. Hugh Rodman, U. S. Navy, Capt. J. S. McKean, U. S. Navy, and Lieut. J. H. Towers, U. S. Navy, to be members of a joint board to consider these questions.

W. S. BENSON, *Acting.*

B-2-13.

WAR DEPARTMENT,
Washington, December 26, 1916.

From: The Secretary of War.

To: The Secretary of the Navy.

Subject: Policy with reference to development of certain types of aircraft.

1. Referring to your letter of November 29, 1916, I have designated Lieut. Col. George O. Squier, Aviation Section, Signal Corps; Maj. Stanley D. Embick, Coast Artillery Corps, and Maj. Dan T. Moore, General Staff (Field Artillery), as members of a joint board to consider the questions referred to in my letter of October 11, 1916.

NEWTON D. BAKER.

Then here is a communication from the Secretary of War to the Secretary of the Navy dated December 29, 1916, the subject of which is defense against air attack. This is aircraft defense, but it was extended afterward. This letter is as follows:

B-2-14.

WAR DEPARTMENT,
Washington, December 29, 1916.

From: Secretary of War.

To: Secretary of the Navy.

Subject: Defense against air attack.

1. I am inclosing herewith papers pertaining to the question of defense against air attack and the proper joint relations between the Army and Navy in connection with this subject.

2. As many of the underlying questions of policy involved are already receiving the consideration of the joint board of Army and Navy officers detailed to investigate the question of developing a Zeppelin service, I propose, if agreeable to you, to refer these papers to the same board for preliminary recommendation and report.

NEWTON D. BAKER.

Then here is a communication of January 12, 1917, concerning the development of a Zeppelin service. There was a joint board, and finally it came down to the decision that the Navy would do the experimental work at the joint expense. That was to avoid duplication. That letter is signed by Franklin D. Roosevelt, Acting Secretary of the Navy. It is as follows:

B-2-15.

JANUARY 12, 1917.

To: The Secretary of War.

Subject: Army and Navy board re development of Zeppelin service.

Reference: (a) Plans for local cooperation of Army and Navy in naval districts; (b) Plans for cooperation in aerial warfare.

1. Replying to your letter of December 29, 1916, W. C. D. 9185-13, proposing that the papers forwarded with your letter be referred to the board of Army and Navy officers detailed to investigate the question of the development of a Zeppelin service, I have the honor to inform you that I am in hearty agreement with your proposal for joint consideration of the questions stated in the War College memorandum W. C. D. 9185-13 of November 24, 1916. These questions are, however, so intimately related to other questions requiring joint consideration that I propose that the scope of the board's study and recommendation be considerably enlarged.

2. Both the Army and Navy maintain organizations on shore for the local defense of the coast. In some cases naval stations and Army posts are within sight of each other. In war their activities would overlap. A large part of these overlapping activities would be connected with aerial warfare. I propose, therefore, that the whole subject of local cooperation of naval and military forces assigned to local defense in time of war and preparation for war be made the subject of special study, report, and recommendation by the board, with a view to the submission of their report for final consideration by the joint board.

3. I suggest that the board consider specifically the following points, but that the enumeration of these points shall not be considered by the board as in any way a

restraint on its initiative in considering any other points bearing on the general subject:

(a) The respective area of responsibility of the Navy Department and War Department in defense against air attacks of shore stations in general and naval shore stations in particular.

(b) To what extent the general defense renders local defense against air attack unnecessary.

(c) The methods of cooperation to be adopted by the Army and Navy in the development of general and local plans for this branch of defense, and for the exchange of ideas and reports on training of personnel and development of material for this purpose.

(d) The advisability of standardizing material used by the Army and Navy respectively for defense against aircraft.

It asks for extensions for the field of this board in addition to what was covered in the Secretary of War's letter. [Continuing reading:]

(e) The mission of Army aircraft operating over the sea.

(f) The mission of Navy aircraft operating from shore stations.

(g) Rules for the cooperation of Army and Navy aircraft when their missions overlap or when the situation requires cooperation either in offense or defense.

(h) The respective area of responsibility of the Army and of the Navy in defense against land attacks on shore stations in general and naval shore stations in particular.

(i) The methods of cooperation of local Army and Navy commanders: (1) In joint plan making; (2) in joint formulation and solution of problems; (3) in local maneuvers (4) in operations.

4. As these subjects are all related to general plans, I shall direct Capt. George R. Marvel, U. S. Navy, Director of Naval Districts, to act as a member of the special joint board in place of Lieut. J. H. Towers, U. S. Navy.

That was the board that is spoken of later on. Now, that was followed by the letter of January 31, 1917, from the Secretary of War to the Secretary of the Navy, which is as follows:

B-2-16.

WAR DEPARTMENT,
Washington, January 31, 1917

From: Secretary of War.

To: Secretary of the Navy.

Subject: Increase in scope of study to be made by joint Army and Navy board relative to development of Zeppelin service.

1. Replying to your letter of January 12, 1917, 26983-663:3, proposing that the scope of the study to be made by the joint board of Army and Navy officers detailed to investigate the question of developing a Zeppelin service be increased to include the following—

“(a) The respective areas of responsibility of the Navy Department and War Department in defense against air attacks of shore stations in general and naval shore stations in particular.

“(b) To what extent the general defense renders local defense against air attack unnecessary.

“(c) The methods of cooperation to be adopted by the Army and Navy in the development of general and local plans for this branch of defense, and for the exchange of ideas and reports on training of personnel and development of material for this purpose.

“(d) The advisability of standardizing material used by the Army and Navy respectively for defense against aircraft.

“(e) The mission of Army aircraft operating over the sea.

“(f) The mission of Navy aircraft operating from shore stations.

“(g) Rules for the cooperation of Army and Navy aircraft when their missions overlap or when the situation requires cooperation either in offense or defense.

“(h) The respective areas of responsibility of the Army and of the Navy in defense against land attacks on shore stations in general and naval shore stations in particular.

“(i) The methods of cooperation of local Army and Navy commanders: (1) In joint plan making; (2) in joint formulation and solution of problems; (3) in local maneuvers; (4) in operations”—

And providing that the enumeration of these points shall not be considered by the board as in any way a restrainer on its initiative in considering any other point bearing

on the general subject, I have to inform you that the suggestions meet with my hearty approval.

2. The necessary instructions have been transmitted to the Army members of the joint board.

NEWTON D. BAKER.

Then there is the report from the board of Army and Navy officers relative to development of aeronautical service, dated March 12, 1917. We went into all the questions that had been submitted to us, and under one clause they said that the board should not consider itself limited to those specific subjects, but any joint subject should be referred to it. I have not put those papers in here, but it was referred to in Admiral Fullam's testimony about a lack of harmony in the defense of our own coast. That is, our board decided on a division of the planting of mines, the placing of nets, and the responsibility for the patrol of the nets and patrol of the entrance, and the whole thing. We settled any question that was referred to us. The big, joint board was so busy, and there were so many disputed questions, that if anybody had anything he wanted to ask about in, so to speak, the no man's land of the service, they sent it to us and we decided it. Right or wrong, we gave a decision. That is here.

The CHAIRMAN. I think you had better put that in with the correspondence.

Admiral McKEAN. The whole of the correspondence?

The CHAIRMAN. Yes.

Admiral McKEAN. I will get that. I dug this up, about the air service. The misunderstanding that there seems to have been was probably due to the fact that the admiral was at sea in command of ships. This joint cooperation was decided upon in the different naval districts between the naval commandant and the military commandant, and it was covered pretty completely, more completely than it has ever been before in our country.

The CHAIRMAN. I do not think I understood you. Did you say the admiral was at sea?

Admiral McKEAN. Admiral Fullam was in command of a ship at sea. He had the command of the whole Pacific Reserve Fleet. The district commandant had command of his district, and he was talking to the commanding officer of that military division; but as between the commandant at Bremerton, for instance, and the commandant of that district there was perfect coordination. It was the same way at San Francisco, in the twelfth district. I will put that report in. I have put in the record a copy of the report of the joint board.

The report referred to is as follows:

B-2-17.

WASHINGTON, D. C., March 12, 1917.

From: Board of Army and Navy officers relative development aeronautical service.

To: Secretary of the Navy.

Subject: Report of board.

Reference: Secretary of Navy's letter, No. 26983-663; 3 Ops-17, ML, of February 1, 1917.

1. The board is of the opinion that the development of the aeronautical resources of the United States and their application in war to the maximum national advantage can be accomplished best through the formulation of plans and regulations for the joint development, organization, and operation of the aeronautical services of the Army and the Navy instead of by the separate development of each service within delimited exact areas of responsibility.

2. While the operations of the aeronautical service of the Navy will be principally over the water and those of the Army principally over the land, it may be said that a war with a first-class power will find the two services constantly operating together. The coast line and the water areas adjacent thereto will become a theater of joint operations in which the naval aeronautical service will take precedence prior to the accomplishment of an invasion, and subsequently the Army aeronautical service will take precedence if the hostile landing be accomplished, but in either case each service will be supplemental and supported by the other.

3. For the above reasons the board believes that pilots and observers for both services should be trained together, so that each service may effectively supplement the other in time of need; that joint training stations should be located on or near the coast; and that in the selection of sites for the establishment of the permanent coast stations careful consideration should be given to their suitability for joint occupancy.

4. While there is an ample field for each service to proceed along its own line in the development of the types of aircraft best suited to meet its particular needs, the board believes that the types adopted by the Army and Navy should be as nearly alike as may be consistent with the particular service required of each; that the motive machinery and control should be standardized; and that in this development there should be had the mutual interchange of ideas and joint cooperation that no obtain in the design and construction of the first Zeppelin. The board believes, also, that if either service should establish a plant for the construction of aeronautical machines or accessories, the other service should be privileged to use it under such control as may be deemed necessary by the service constructing the plant.

5. It is believed to be neither practicable nor desirable to specify the exact line at which the operations of either service should begin or end, although such a line, if drawn, would coincide approximately with the coast lines of continental United States and of each of the overseas possessions; the Army operating over the land, the Navy over the sea, but each extending its operations locally into the other's area as occasion requires. Keeping in mind, however, that the two services will be called upon in many cases to act conjointly, their respective responsibilities and spheres of action may be defined in general as follows:

Army responsibility: (a) Aircraft operating in conjunction with the mobile army; (b) aircraft required for fire control for coast defenses; (c) aircraft required for the defense of fortifications, navy yards, arsenals, cities, shipbuilding plants, powder works, or other similar important utilities, whether public or private, that are located on shore.

Navy responsibility: (a) Aircraft operating in conjunction with the fleet; (b) aircraft operating from shore bases for overseas scouting; (c) aircraft operating under the commandants of naval districts and advanced bases.

6. In general, it may be said that it is primarily the duty of the Army to defend harbors, cities, and all manufacturing, or other utilities that are located on shore, and that it should be charged with the organization of the Aircraft Service for this purpose and that the operations of the naval aeronautical service will be principally over the sea, although it will require bases on shore, probably under the commandants of naval districts. It should be the duty, however, of the Army and naval commandants in coastal districts to familiarize themselves with the plans of each other, with a view to effective cooperation, both on land and on sea.

7. Replying more specifically to the several questions set forth in the letter of the Secretary of the Navy and indented below, the board is of the opinion:

(a) The respective areas of responsibility of the Navy Department and War Department in defense against air attacks of shore stations in general and naval shore stations in particular.

The general defense of these stations should be entrusted to the Army. The necessity and character of this general defense will differ in no essential respects from those required for the defense of any other important utility, whether public or private. The local defense, in so far as it includes anti-aircraft guns, should be entrusted to the local commander.

(b) To what extent the general defense renders local defense against air attacks unnecessary.

The more complete the general defense the more secure will be the individual station or other similar utility. In general, however, such local defense should be confined to the provision of anti-aircraft guns. Aircraft, because of their mobility, should not in general be distributed and immobilized by assignment to the local defense of a particular utility.

(c) The methods of cooperation to be adopted by the Army and Navy in the development of general and local plans for this branch of defense and for the exchange of ideas and reports on training of personnel and development of material for this purpose.

Since this question refers exclusively to operations on shore, Army plans should take precedence, and naval plans should simply supplement Army plans when necessary for the defense of naval utilities. The local commanders should exchange data and plans. The naval commanders should adjust their local plans to the general plan of the Army commanders for local defense.

(d) The advisability of standardizing material used by the Army and Navy, respectively, for defense against aircraft.

The types of aircraft motors, machinery, radio sets, bombs, and other accessories should be standardized to the greatest extent compatible with the particular service that will be required of them. Standardization of guns and ammunition for defense against aircraft is desirable, but homogeneity of guns and ammunition within each service is of more importance than homogeneity of guns and ammunition used by the Army and Navy in defense against aircraft on shore.

(e) The mission of Army aircraft operating over the sea.

For the service of security and information for the territorial commander, and for fire-control purposes for the local Coast Artillery commanders, and for affording aid and assistance to both the Army and the Navy in scouting and offensive measures when operations of the enemy are in the immediate vicinity of the coast.

(f) What is the mission of Navy aircraft operating from shore stations?

To scout for and report movements of enemy forces at sea; to attack enemy forces at sea; and to assist the Army when operations of the enemy are in the immediate vicinity of the coast.

(g) Rules for the cooperation of Army and Navy aircraft when their missions overlap or when the situation requires cooperation either in offense or defense—

(1) When it appears to any local commander, either Army or Navy, that the assistance of local aircraft of the other service is needed, he should communicate in the most direct manner possible with the local commander of the other service, and the two commanders should arrange for action by the local aircraft so as best to advance the general situation of the armed forces of the United States;

(2) Both commanders should accept as the basis of their decision in all matters the general military situation rather than the special situation of either the Army or Navy;

(3) In cooperation in the performance of duties assigned to the Army, the Army should control the flights;

(4) In cooperation in the performance of duties assigned to the Navy, the Navy should control the flights.

(h) The respective areas of responsibility of the Army and of the Navy in defense against land attacks on shore stations in general and naval shore stations in particular.

The defense of all stations on shore against land attack should rest with the Army, except that measures taken within the limits of a naval station for the security of that station should be controlled by the Navy.

(i) The methods of cooperation of local Army and Navy commanders (1) in joint plan making, (2) in joint formulation and solution of problems, (3) in local maneuvers, (4) in operations.

(1) A permanent joint-planning committee should be organized within the geographical limits of each naval district, which committee should propose and solve comprehensive problems of local defense requiring cooperation of the military and naval forces within such limits.

(2) All problems in cooperation that may arise from time to time should be submitted to this joint-planning committee. The joint-plans committee should be governed by the joint plans for war. The members of the committee should consult on all questions with their commanding officers in order that the views of responsible officers shall receive expression in the preliminary plans. Local plans formulated by the joint committee should be revised as necessary and adopted by the senior local commanders of the two services.

(3) Joint plans for local maneuvers which will stimulate to actual war conditions, and which will involve the cooperation of the two services, should be frequently planned and carried into execution.

(4) The joint plans prepared as above, and perfected as a result of the experience gained in maneuvers, should form a basis for joint operations in war.

8. In order to insure effective cooperation in the development and standardization of material, the board recommends:

(a) That the Army and Navy cooperate under the Navy Department in the development of types of hydroaeroplanes after the manner already prescribed for the construction of the first Zeppelin.

(b) That, similarly, the Army and Navy cooperate under the War Department in the development of types of land aeroplanes.

Signed:

GEORGE O. SQUIER,
Brigadier General, Chief Signal Officer, U. S. Army.

STANLEY D. EMBICK,
Major, Coast Artillery Corps.

DAN T. MOORE,
Major, General Staff.

GEO. R. MARVELL,
Captain, U. S. Navy.

HUGH RODMAN,
Captain, U. S. Navy.

J. S. McKEAN,
Captain, U. S. Navy.

Approved:

NEWTON D. BAKER,
Secretary of War.

Approved:

JOSEPHUS DANIELS,
Secretary of the Navy.

Admiral McKEAN. Here is B-2-18, a memorandum to the Secretary of the Navy, prepared in my office. It is a history, the whole story up to that date. This memorandum is as follows:

B-2-18.

JUNE 25, 1917.

To: The Secretary of the Navy.

Subject: Naval aeronautics.

HISTORY OF NAVAL AERONAUTICS.

1. Aeronautics in the Navy was at the commencement of this work by the Navy placed under the Bureau of Navigation. Later it appeared more desirable to place Aeronautics under Operations, and an office of Aeronautics under Operations was created. In the spring of 1916 the office of Aeronautics was abolished, and Aeronautics became an integral part of Operations. It then was handled in the same way as any other regular branch of the naval service, that is, by the bureau method. Policies, plans, and operations were prepared in Operations, and the material supplies were handled by the bureaus concerned, and personnel by the Bureau of Navigation.

2. The act of August 29, 1916, created a Naval Flying Corps, and steps were immediately taken to draw up the necessary plans and regulations to put this act into effect. The law was construed in different ways by different officers, and it was found impossible to put the law into effective operation. The same act of August 29, 1916, also created the Naval Reserve, including the Naval Reserve Flying Corps, and this part of the law was effectively operative, and has been used to build up the personnel required for the rapid expansion during the present emergency.

DEVELOPMENT OF AIRCRAFT.

3. The department has consistently had in view the development of aircraft for use in connection with other operations of the naval forces:

First. For starting from aboard ship, and returning to the ship, for purposes of obtaining information, controlling the fire of our own guns, and opposing enemy craft being used for a similar purpose.

Second. For use over the sea, starting from shore coastal air stations in connection with the naval district surface patrol craft, in locating and destroying enemy surface or submarine craft.

4. A catapult has been developed for launching heavier-than-air craft from ships. It has been installed on three ships, and a fourth installation has been authorized. This catapult is necessarily somewhat bulky in order to accommodate the size of machine now in use, and a smaller machine, which will permit the use of a much smaller launching way, is therefore being developed in order that machines can be assigned to vessels having less space available.

5. Kite balloons have been successfully used by us aboard ship for spotting in connection with fire control, and are now being further developed for this use.

6. The development of aircraft for use at sea is much more difficult than for use over land, but from latest information received this country is as far advanced in types as any country abroad, and with the impetus given to manufacturers by the present demands much more rapid development is hoped for.

7. A nonrigid dirigible is being developed for use from air stations. The first one is now being tested, and several more have been ordered. In addition the plans of latest type of nonrigid dirigible used in England have been received and are being considered in connection with future development of this type.

8. The number of aircraft now in service and under construction as follows:

	In service.	Under construction.
Seaplanes.....	42	220
Kite balloons.....	5	12
Free balloons.....	1	1
Nonrigid dirigibles (blimps).....	1	40
Airplanes.....	3	2

TRAINING PERSONNEL.

9. When war was declared it was desired to expand the training of naval aviators as much as the facilities available permitted. Due to shortage of regular line officers in the service it was considered impracticable to assign any additional line officers to aviation instruction. Numerous applications have been received from civilians to join the naval service for special duty in aviation.

10. The best of the applicants have been enrolled in the Naval Coast Defense Reserve (class 4 of Naval Reserve Force for aviation duties), and these men are being ordered to training as rapidly as the available facilities permit. In addition to Pensacola being supplied with as many as can be handled, training camps have been established at Squantum, Mass., and Bay Shore, L. I.; an officer has been detailed to supervise training at a camp established by private enterprise, first at Palm Beach, Fla., and later moved to Huntington, L. I.; a contract had been made with the Curtiss Co. for the training of 20 aviators at their field at Newport News, Va., under the supervision of a naval officer, and the question of increasing the number at this point is now under consideration; arrangements have been made with the Goodyear Tire & Rubber Co., at Akron, Ohio, for the training at that point of 20 dirigible pilots; 100 men and 4 officers have been sent to France; the question of sending men to England or giving their men preliminary training in this country has been considered, and arrangements are now being made to send 20 men to Camp Borden, Canada, in connection with 100 Army men for preliminary training, and for the purpose of obtaining a broader view of training methods.

11. The number now under training as aviators is as follows: Pensacola, 45; Squantum, 25; Newport News, 20; Bay Shore, 25; Huntington, 27; Akron, 20; France, 104; Camp Borden, 20; a total of 186.

There are also under training 356 student airmen for seaplane and dirigible crews.

As the men in the reserve qualify as aviators it is the intention to commission them as ensigns in the Naval Reserve Flying Corps (class 5 of Reserve Force), making them available for general service in that corps.

12. In addition to those now under training, men are being enrolled and will be called to active service as soon as they can be taken care of. The two obstacles in the way of calling more men immediately are (1) Lack of instructors, (2) lack of aircraft. As aviators are qualified they will be used as instructors for others, and in this way this difficulty will be overcome.

13. Additional seaplanes are being procured as fast as they can be supplied by the manufacturers, giving due consideration to the urgent needs of the Army.

14. Representatives of the Army and Navy, with Mr. Bolling of the Aircraft Production Board, are now on their way to Europe. They form a joint board to investigate and facilitate purchase of such types of airplanes and engines as have been found best by the allies in war use. Such information and types could not be obtained while this country remained neutral.

15. In addition to cooperation of Army and Navy, there has been established, with the assistance of the Aircraft Production Board, a closer cooperation and understanding with manufacturers.

TRAINING STATIONS.

16. The United States Navy aeronautic station at Pensacola is being enlarged by addition of permanent hangars for 54 seaplanes, and temporary hangars for 12 seaplanes. This will give a hangar capacity for 92 seaplanes. Landing beach and facilities for a second flight area are being prepared in the upper bay, in order to double the number of airplanes that can be simultaneously in use for training without overcrowding the air. Construction of quarters for 1,000 additional men is also being expedited. Other general construction work is in progress.

17. A temporary single hangar and a permanent six-airplane hangar are to be constructed at the naval air station at Bay Shore, Long Island. Capacities of all stations for training purposes are being increased as rapidly as deliveries of seaplane warrant.

18. Establishment of a training station at North Island, San Diego, Calif., is under consideration.

NAVAL COASTAL AIR STATIONS.

19. According to the recommendations of a joint board of Army and Navy officers appointed by the Secretary of War and the Secretary of the Navy the cognizance of aircraft has been apportioned as follows:

"Army responsibility: (a) Aircraft operating in conjunction with the mobile army; (b) aircraft required for fire control for coast defenses; (c) aircraft required for the defense of fortifications, navy yards, arsenals, cities, shipbuilding plants, powder works, or other similar important utilities, whether public or private, that are located on shore.

"Navy responsibility: (a) Aircraft operating in conjunction with the fleets; (b) aircraft operating from shore bases for overseas scouting; (c) aircraft operating under the commandants of naval districts and advanced bases.

"6. In general it may be said that it is primarily the duty of the Army to defend harbors, cities, and all manufacturing or other utilities that are located on shore and that it should be charged with the organization of the aircraft service for that purpose: and that the operations of the naval aeronautical service will be principally over the sea, although it will require bases on shore, probably under the command of naval districts. It should be the duty, however, of the Army and naval commandants in coastal districts to familiarize themselves with the plans of each other, with a view to effective cooperation, both on land and on sea."

20. The cognizance of the Navy requires the establishment of coastal air stations as bases for aircraft operating in connection with the naval district surface patrol craft, or vessels of high sea fleet operating near shore. Strategic localities, and sites in these localities have been selected by joint Army and Navy boards, approved by the Secretary of War and the Secretary of the Navy.

21. Sites have been selected and arrangements are now being made to construct air stations at the following points: Montauk Point, Rockaway Beach, Cape May, Hampton Roads, Key West, and Coco Solo Point, Panama.

The following additional locations have been decided upon: San Diego, Pea Harbor, and Port Angeles.

The following are still being investigated: New England coast, vicinity of Savannah, Gulf coast, and West Indies.

22. Additional intermediate temporary stations would be needed if enemy operations were conducted on our coast, but these could be established as the situation demanded.

23. When these coastal stations are completed and put in operation they will be utilized to assist in carrying on advanced training, which will increase the output of the regular training stations.

PROPOSED AERONAUTIC LEGISLATION.

24. The Secretary of the Navy in December, 1916, directed the preparation of proposed legislation for Congress which could be substituted for the bill contained in act of August 29. The draft of this bill is still under consideration, but owing to the rapidly changing conditions it has not yet taken form.

25. It does not appear desirable to place the aeronautic activities of the Army and Navy under one head. The only part of these activities which it seems could be jointly operated is the supply of material, and this is not really more similar than some other supplies of material which have been obtained, and are being obtained separately by the Army and Navy, without interference or friction.

26. The military aeronautic activities of the two services are entirely dissimilar, and the personnel requires different training. For useful operation the naval aeronautic forces must be directly under the Navy, and the same seems to apply to the Army.

27. In England at the beginning of the present war an attempt was made to have a combined training school, but this was afterwards abandoned on account of the different training required. The division of aeronautic cognizance abroad is practically that recommended by the joint board on cognizance as quoted above.

28. In order to coordinate the efforts of the Army and Navy along aeronautic lines, several joint boards have been appointed. These boards are:

(a) The Joint Army and Navy Board on Aeronautic Cognizance. This board considers all questions concerning the broad principles and the divisions of cognizance.

(b) Joint Army and Navy Zeppelin Board, headed by Chief Constructor D. W. Taylor. This board has the duty of developing the large rigid type of airship for both services.

(c) Joint Army and Navy Technical Board, headed by Maj. B. D. Foulois. This board considers all questions of type, designs, specifications, and makes recommendations covering these matters. This board has the direct cooperation of the Aircraft Production Board of the Council of National Defense.

It is considered that these three boards closely bind the aeronautic activities of the two services, and receive the most effective cooperation that can possibly be obtained in any way.

29. The establishment of any aeronautic department at the present time should be for the sole reason of obtaining greater war efficiency. Greater efficiency can be obtained by keeping the various war activities more united under one head; and, at the front one man must be in command on shore and one at sea.

30. The plea for having a separate command for the air does not hold good because in the present state of development of aircraft (and any that can be now foreseen) the air service will be auxiliary to the Army and Navy. Battles may be fought in the air, to maintain superiority in the air for the purpose of obtaining information of some form to assist the main forces on land or sea, but such battles may be likened to scouting cavalry engagements incidental to the main battle.

31. The natural dwelling place of man is on the surface of the earth, and wars must be decided at this locality.

32. The surface of the water has become a well-developed route of transportation of supplies between the different portions of the land.

33. When the air becomes a dwelling place for man, or a means of transporting heavy freight between such dwelling places, then aeronautics will be of sufficient importance to warrant establishing a separate department of aeronautics, but from our present knowledge of the laws of gravitation this is impossible now.

34. As submarines work in three dimensions the same as aircraft, the same reason applies to establishing a separate department for that branch of the service.

35. Whatever may be the commercial development and usefulness of aircraft after the war, their usefulness now is for military purposes auxiliary to main operations.

36. Aircraft perform no independent major operations. Even their independent raids are not major operations, and are not their most important performance. Their greatest function is that of rendering service to other military or naval forces. This service includes providing of information by reconnaissance of scouting, and by spotting of gunfire; it includes also protective service in the preventing of enemy aircraft from securing information for enemy forces.

37. The primary duty of aircraft for service over water is with the fleets, rendering such information and protection service, or with the naval coast defense on similar duty, including the furnishing of information as to submarines. For unity of effort such auxiliary service should be under naval command. Until primary operation becomes a preponderant function of naval aircraft, the control of such aircraft should remain with the Navy.

38. The necessity for a complete change of our whole system, probably resulting in temporary disorganization and delay at this critical stage of the war, to secure cooperation which already exists is not seen, and it is strongly recommended that Congress be requested to lay aside for the present the proposed legislation for the reorganization of a Department of Aeronautics.

The next is a memorandum of April 3, 1920, also prepared in my office, showing the amounts appropriated for the naval service from year to year, starting in 1912 with \$25,000, and running up to 1920. It is as follows:

B-2-19.

APRIL 3, 1920.

Memorandum for: Admiral J. S. McKean, United States Navy.
Subject: Funds appropriated for aviation in the naval service.

1. As directed by you, I submit below a list showing funds appropriated for aviation in the naval service:

Fiscal year.	Departmental supervision.	Appropriation act.	Amount
1912.....	Bureau of Navigation.....	Naval.....	\$25,
1913.....	do.....	do.....	10,
1914.....	do.....	do.....	10,
1915.....	do.....	do.....	10,
1916.....	Chief of Naval Operations.....	Naval (unobligated balances).....	1,000,
1917.....	do.....	Naval.....	3,500,
1917-18.....	do.....	do.....	5,133,
1917-18.....	do.....	Emergency.....	3,000,
1917-18.....	do.....	Urgent deficiency.....	11,000,
1918.....	do.....	Naval.....	45,000,
1919.....	do.....	do.....	220,383,
1920.....	do.....	do.....	25,000,

NOTE.—By act of February 25, 1919, \$97,000,000 of aviation appropriations for the years 1917-18, 1918, and 1919 was repealed, and therefore that amount should be deducted from the total appropriated for those years.

Respectfully,

(Signed) LANE LACY

NOTE.—The total amount appropriated for the years 1912, 1913, 1914, 1915, 1917, 1917-18, 1918, 1919, and 1920 was \$314,071,119; \$97,000,000 subtracted from that amount leaves the amount \$217,071,119.

War appropriations.

1917.....	\$3,500,
1917-18.....	5,133,
1918.....	11,000,
1919.....	3,000,
	45,000,
	220,383,
Total.....	288,016,
Less.....	97,000,
Total.....	191,016,

Of the \$220,000,000 in 1919, \$97,000,000 was not expended or obligated, and that was turned back, so that your total expenditures of appropriations up to date are \$191,000,000.

The CHAIRMAN. Up to date? Do you mean this date, the date of that memorandum?

Admiral McKean. Up to date. That is, including the fiscal year 1920.

Here is a memorandum dated April 5, 1920, prepared at my request, of aviation personnel and matériel for 1917 and 1918. This memorandum is as follows:

B-2-20.

Memorandum.

APRIL 5, 1920

For: Admiral J. S. McKean, United States Navy.

Subject: Statistics of aviation personnel and material 1917 and 1918.

1. As directed by you, statistics of aviation personnel and material are submitted below:

Personnel.—April 6, 1917: Officers, 38; men, 163. November 11, 1918: Naval aviators, 1,656; ground officers, 1,349; student officers, 3,912; officer total, 6,917. Enlisted men, 43,452. Officers and men sent abroad during war: Officers, 1,200; enlisted men (aviation ratings), 8,215; enlisted men (aviation duty, miscellaneous ratings), 8,072.

Material.—Heavier-than-air craft on hand and on order April 6, 1917, and November 11, 1918:

	On hand.		On order.	
	April, 1917.	November, 1918.	April, 1917.	November, 1918.
Flying boats.....	6	1,170		1,921
Seaplanes.....	45	695	88	102
Land planes.....	3	242	3	10

Lighter-than-air craft on hand and on order:

	On hand.		On order.	
	April, 1917.	November, 1918.	April, 1917.	November, 1918.
Free balloons.....	0	10	0	0
Kite balloons.....	2	205	3	0
Dirigibles.....	1	15	13	30

Stations.—Number of shore stations maintained for aviation at home and abroad on April 6, 1917, and the same as of November 11, 1918: April 6, 1917, one station at Pensacola, Fla.; November 11, 1918 (total 54)— Number of stations in the United States, 23; number of stations abroad, 31.

2. The above gives the information available from the records of this office. On account of the fact that the aviation work has been distributed throughout the department, data relative to personnel and material by classes is only available in the Bureau of Navigation and the Division of Material, respectively.

Respectfully,

(Signed) LANE LACY.

The CHAIRMAN. What does "on order" mean, under process of construction?

Admiral McKEAN. Under contract, sir.

The CHAIRMAN. But not necessarily under construction?

Admiral McKEAN. You could not tell. After they got started and really going, it did not take long; but they were under contract and the date of delivery was set in all cases, just like shipbuilding.

The CHAIRMAN. You do not know when those particular planes were delivered?

Admiral McKEAN. No, sir. They could get that out of aeronautics. They have the history of every aircraft, just the same as we have of every ship, the date of contract and the date of delivery, and whether expended, or whatever happened to it.

The CHAIRMAN. I would like to have a list showing month by month the planes that were delivered.

Admiral McKEAN. What date?

The CHAIRMAN. Month by month from April 6, 1917, to the time of the armistice in 1918.

I would also like to have a list showing when those stations were established.

Admiral McKEAN. Yes, sir.

Senator KEYES. What constitutes a station? Are they different kinds and different sizes?

Admiral McKEAN. The quarters for the men, the hangars; if you have lighter than air and heavier than air hangars for both types of

machines; launching ways; and your hydrogen plant. The biggest thing is the quarters for officers and men and their accommodations.

Senator KEYES. You would have all that before you would designate it a station, would you?

Admiral McKEAN. We usually started with a piece of canvas and one machine, and then let it grow.

Senator KEYES. I was wondering, when you say "station," whether you really had the station in active operation or whether it was something simply designated as a station but consisting of a piece of canvas, as you say.

Admiral McKEAN. No; there was personnel and material operating from each of these.

The CHAIRMAN. Please have the list requested show when the stations were in operation.

Admiral McKEAN. That is, the dates of establishment?

The CHAIRMAN. And the dates when they were actually in operation?

Admiral McKEAN. I can add the number of personnel at each of these stations also.

The CHAIRMAN. Very well.

Admiral McKEAN. That is statistical data, showing the two dates. I think that is all with reference to aviation.

Now, in particular, with reference to Admiral Sims's testimony as to ships that should have been in Europe April 6, 1918, one year after the war, etc., I have taken a number of quotations from Admiral Sims's testimony which the committee will recall. Here is the first:

I do not know whether you know it or not, but up to the first year of the war we did not have much more than 100 ships of all classes on the other side, and there was not a single ship that was not available or could have been available to be over there in the first 15 days of the war. Now there is the whole point of all my statement and of my criticism.

Then from another place in his testimony I quote as follows:

The country had already gone into war on the 6th of April. If these vessels had sailed that night, and there is no God's reason why they should not have been ready to sail, and gotten into the thing by the end of April, the decrease in the losses you speak of in July, would have begun then, and we would have saved 2,500,000 and we would have been able to put an army into France by May 1, 1918, of a million men.

Then here is another quotation:

We declared war on the 6th of April, and there was not a single force on the other side until the 4th of May. What do you know about that for preparation for war. And I can give you the dates when they arrived—another bunch of ships—and I can show you that after two months there were only 30 destroyers there. I can show you that at the end of a whole year there were approximately 120 vessels of all classes, including supply ships. Not one of those ships was built since the war. There was no reason why they could not have been all sent over immediately upon the declaration of war, and if they had been there we would have put the submarine campaign out of operation and decreased the losses. I do not know why they did not send them over there. The good Lord only knows why they did not send them over there, but they did not send them at all.

Then here is another quotation:

There was a war going on over there and they did not send the ships over. It was months before any of them got there.

There is appended hereto an official list of vessels in European waters on April 6, 1918. This list shows that on that date there were 139 United States vessels of all classes engaged in antisubmarine and convoy work. This list shows the dates of sailing and dates of

This list shows a total of 59 destroyers, six of which were not built when we went into the World War.

Special attention is called to that quotation.

The CHAIRMAN. Were these ships over on April 6, 1918?

Admiral McKEAN. Yes, sir.

(The list above referred to is here printed in full in the record as follows:)

List of vessels in European waters Apr. 6, 1918.

Name.	Date of sailing.	Date of arrival in Europe.	Name.	Date of sailing.	Date of arrival in Europe.
DESTROYERS.			DESTROYERS—CON.		
Rainbridge	Aug. 1, 1917	Oct. 20, 1917	Allen	June 14, 1917	July 5, 1917
Barry	do.	do.	Wilkes	do.	Do.
Dale	do.	do.	Shaw (commissioned Apr. 9, 1917)	June 17, 1917	July 6, 1917
Decatur	do.	do.	Caldwell (commissioned Dec. 1, 1917)	Feb. 14, 1918	Mar. 5, 1918
Macdonough	Jan. 16, 1918	Feb. 20, 1918	Stockton (commissioned Nov. 26, 1917)	Jan. 30, 1918	Feb. 12, 1918
Isabel	Jan. 17, 1918	do.	Manley (commissioned Oct. 15, 1917)	Nov. 24, 1917	Dec. 6, 1917
Stewart	Jan. 16, 1918	Feb. 9, 1918			
Truxton	Aug. 31, 1917	Sept. 17, 1917			
Whipple	do.	do.			
Worden	Jan. 16, 1918	Feb. 9, 1918			
Smith	July 16, 1917	July 26, 1917			
Lamson	do.	do.			
Preston	July 22, 1917	July 31, 1917			
Plummer	July 30, 1917	Aug. 12, 1917			
Reid	July 21, 1917	July 31, 1917			
Faulding	May 21, 1917	June 1, 1917			
Drayton	do.	do.			
Rae	Nov. 9, 1917	Dec. 13, 1917			
Terry	Jan. 9, 1918	Feb. 6, 1918			
Stewart	May 21, 1917	June 9, 1917			
McCall	Jan. 17, 1918	Feb. 22, 1918			
Burrows	June 24, 1917	July 5, 1917			
Warrington	May 21, 1917	June 1, 1917			
Monaghan	Nov. 9, 1917	Dec. 13, 1917			
Tripp	May 21, 1917	June 1, 1917			
Ammon	June 17, 1917	July 5, 1917			
Patterson	May 21, 1917	June 1, 1917			
Fanning	June 14, 1917	July 6, 1917			
Jarvis	May 25, 1917	June 13, 1917			
Beale	Jan. 9, 1918	Feb. 6, 1918			
Jenkins	May 21, 1917	June 1, 1917			
Cassin	May 7, 1917	May 21, 1917			
Cummings (commissioned May 28, 1917)	May 15, 1917	May 24, 1917			
Dewees	Oct. 18, 1917	Nov. 8, 1917			
Duncan	Oct. 31, 1917	Nov. 15, 1917			
Avlin	Jan. 4, 1918	Jan. 16, 1918			
Parker	June 16, 1917	July 6, 1917			
Benham	May 15, 1917	May 24, 1917			
Balch	Oct. 25, 1917	Nov. 8, 1917			
O'Brien	May 15, 1917	May 24, 1917			
Nicholson	do.	Do.			
Winslow	May 7, 1917	May 21, 1917			
McDougal	Apr. 24, 1917	May 4, 1917			
Cushing	May 15, 1917	May 24, 1917			
Eriksen	May 7, 1917	May 21, 1917			
Tucker	do.	Do.			
Coveyham	Apr. 24, 1917	May 4, 1917			
Porter	do.	Do.			
Wadsworth	do.	Do.			
Wainwright	do.	Do.			
Sansom	May 15, 1917	May 24, 1917			
Rowan	May 7, 1917	May 21, 1917			
Davis	Apr. 24, 1917	May 4, 1917			
			TENDERS.		
			Melville	May 11, 1917	May 24, 1917
			Dixie	May 31, 1917	June 13, 1917
			Panther	July 30, 1917	Aug. 12, 1917
			Bushnell	Oct. 12, 1917	Oct. 27, 1917
			Prometheus	Dec. 5, 1917	Feb. 11, 1918
			Tonopah	Jan. 7, 1918	Do.
			GUNBOATS.		
			Sacramento	July 22, 1917	Aug. 1, 1917
			Machias	July 30, 1917	Aug. 16, 1917
			Castine	Aug. 1, 1917	Do.
			Nashville	Aug. 2, 1917	Aug. 12, 1917
			Wheeling	Aug. 31, 1917	Sept. 17, 1917
			Marietta	Sept. 13, 1917	Sept. 24, 1917
			Paducah	Sept. 20, 1917	Oct. 17, 1917
			CRUISERS.		
			Birmingham	Aug. 8, 1917	Aug. 17, 1917
			Chester	Aug. 26, 1917	Sept. 2, 1917
			SUBMARINES.		
			K-1, 2, 5, 6	Oct. 12, 1917	Oct. 27, 1917
			L-1, 2, 3, 4, 10, 11	Dec. 4, 1917	Jan. 27, 1918
			E-1	do.	Jan. 12, 1918
			L-9	Jan. 17, 1918	Feb. 22, 1918
			BATTLESHIPS.		
			Delaware	Nov. 25, 1917	Dec. 7, 1917
			New York	do.	Do.
			Wyoming	do.	Do.
			Texas	Jan. 30, 1918	Feb. 11, 1918
			MINE LAYER.		
			Baltimore	Mar. 4, 1918	Mar. 18, 1918

1 AZORES.

List of vessels in European waters Apr. 6, 1918—Continued.

Name.	Date Navy took over.	Date of commissioning.	Date of sailing.	Date of arrival.
YACHTS.				
Aphrodite.....	May 3, 1917	May 29, 1917	June 14, 1917	June 27, 1917.
Arcturus.....	Aug. 7, 1917		Nov. 4, 1917	Dec. 7, 1917 (Azores).
Barneget (tug) ¹	Oct. 12, 1917		Dec. 20, 1917	Jan. 23, 1918 (Azores).
Christabel.....	Apr. 30, 1917	May 21, 1917	June 9, 1917	June 26, 1917 (Azores).
Corona.....	June 10, 1917	July 20, 1917	Aug. 5, 1917	Aug. 19, 1917 (Azores).
Corsair.....	May 3, 1917	May 15, 1917	June 14, 1917	June 27, 1917 (Azores).
Druid.....	June 2, 1917	Sept. 17, 1917	Nov. 3, 1917	Dec. 6, 1917 (Azores).
Emeline.....	June 10, 1917	July 14, 1917	Aug. 4, 1917	Aug. 19, 1917 (Azores).
Galatea.....	July 26, 1917		Dec. 15, 1917	Jan. 22, 1918 (Azores).
Harvard.....	Apr. 28, 1917	May 10, 1917	June 9, 1917	June 26, 1917 (Azores).
Lydonia.....	June 8, 1917	Oct. 27, 1917	Oct. 30, 1917	Dec. 7, 1917 (Azores).
Margaret.....	Aug. 14, 1917	Oct. 16, 1917	Nov. 4, 1917	Do.
May.....	Aug. 11, 1917		do.	Dec. 6, 1917 (Azores).
Nahma ²	June 21, 1917			
Nokomis.....	Sept. 6, 1917	Dec. 3, 1917	Dec. 17, 1917	Jan. 24, 1918 (Azores).
Noma.....	Mar. 26, 1917	May 10, 1917	June 9, 1917	June 26, 1917 (Azores).
Rambler.....	Aug. 16, 1917	Oct. 18, 1917	Nov. 4, 1917	Dec. 7, 1917 (Azores).
Remlick.....	June 10, 1917	July 11, 1917	Aug. 4, 1917	Aug. 19, 1917 (Azores).
Scorpion ³				
Sultana.....	Apr. 21, 1917	May 27, 1917	June 9, 1917	June 26, 1917 (Azores).
Utownah.....	Aug. 26, 1917		Nov. 4, 1917	Feb. 9, 1918, left Azores
Vidette.....	Apr. 21, 1917	May 27, 1917	June 9, 1917	June 26, 1917 (Azores).
Venetia.....	Aug. 4, 1917		Dec. 21, 1917	Jan. 23, 1918 (Azores).
Wakiva II.....	July 20, 1917		Aug. 26, 1917	Sept. 6, 1917 (Azores).
Wanderer.....	June 10, 1917	July 14, 1917	Aug. 4, 1917	Aug. 19, 1917 (Azores).
Wenonah.....	Aug. 8, 1917	Oct. 22, 1917	Nov. 4, 1917	Dec. 6, 1917 (Azores).
Yankton ⁴			Aug. 20, 1917	Sept. 2, 1917 (Azores).
TUGS.				
Genesee.....	Sept. 26, 1917		Dec. 4, 1917	Jan. 12, 1918 (Azores).
Gypsum Queen.....	Sept. 17, 1917		Dec. 20, 1917	Jan. 24, 1918 (Azores).
Montauk.....	Oct. 12, 1917		Jan. 8, 1918	Feb. 5, 1918 (Azores).
Nahant.....	do.		Dec. 17, 1917	Jan. 24, 1918 (Azores).
Penobscot.....	do.		do.	Do.
Surveyor ⁵	Sept. 24, 1917		Jan. 8, 1918	Feb. 5, 1918 (Azores).
TRAWLERS.				
Courtney.....	May 28, 1917	Aug. 10, 1917	Aug. 26, 1917	Sept. 6, 1917 (Azores).
City of Lewes.....	May 18, 1917		do.	Do.
Hilton.....	June 14, 1917	Aug. 10, 1917	do.	Do.
Hubbard.....	May 28, 1917	do.	Sept. 29, 1917	Oct. 17, 1917 (Azores).
McNeal.....	June 18, 1917	do.	Aug. 26, 1917	Sept. 6, 1917 (Azores).
James.....	May 28, 1917	do.	do.	Do.
MINE SWEEPERS.				
Cahill.....	June 12, 1917	Aug. 10, 1917	Aug. 26, 1917	Sept. 6, 1917 (Azores).
Carla IV.....	June 10, 1917	July 7, 1917	Aug. 4, 1917	Aug. 19, 1917 (Azores).
Concord.....	Sept. 22, 1917		Dec. 15, 1917	Jan. 23, 1918 (Azores).
Douglas.....	May 28, 1917	Aug. 10, 1917	Aug. 26, 1917	Sept. 6, 1917 (Azores).
COAST GUARD CUTTERS.				
Manning.....			Aug. 29, 1917	Sept. 9, 1917 (Azores).
Ossipee.....			Aug. 15, 1917	Aug. 25, 1917, left Azores.
Seneca ⁶			Aug. 19, 1917	Sept. 4, 1917.
Tampa.....			Sept. 29, 1917	Oct. 17, 1917 (Azores).
Yamacraw.....			Aug. 30, 1917	Sept. 11, 1917 (Azores).

¹ These vessels were in the United States Navy prior to declaration of war.² Commissioned in European waters Aug. 27, 1917.³ Interned at Constantinople, Turkey.⁴ Executive order.⁵ Captain commandant, Coast Guard, ordered to equip for distant service by the Chief of Naval Operations, letter July 30, 1917.

Admiral McKean. This same list shows that there were 6 tenders or repair ships, 7 gunboats, 2 cruisers, 12 submarines, 5 battleships, and 1 mine layer, all Government owned on the date of declaration of war, and it shows the date of sailing and date of arrival.

It shows also a list of 26 yachts, only 2 of the 26 being Government property on the date of the declaration of war. This list shows the date on which these vessels were taken over from private parties by

purchase or otherwise, the date of their commissioning, the date of their sailing, and the date of their arrival, so that Admiral Sim's statement in reference to this type was only true as to 2 out of 26; and of these 2 Government owned yachts he should have known, and undoubtedly did know, that one of them, the *Scorpion*, was interned at Constantinople, Turkey, and was therefore not available for his use in London or anywhere else.

This shows a list of seven tugs, five trawlers, and four mine sweepers, none of which were owned by the Navy Department on the date of declaration of war. The table shows the date they were taken over by the Navy, dates of sailing, dates of arrival in Europe, and the date of commissioning where this date differs from the date they were taken over.

There is also a list of five Coast Guard cutters which came under the Navy Department on the declaration of war and were assigned to the district forces until July 30, 1917, when they were turned over to the commandant of the Coast Guard for equipment for service abroad. The list shows the date of sailing of these vessels and their date of arrival on the other side.

To sum up, this list shows that of the total of 139 vessels of the antisubmarine and convoy types in Europe on April 6, 1918, there were 6 destroyers not completed, 24 yachts not even owned by the Government, 7 tugs not owned by the Government, 5 trawlers not owned by the Government, and 4 mine sweepers not owned by the Government, or a total of 45 vessels out of 139 covered by Admiral Sims's statement which were not Government-owned vessels on the declaration of war, and in addition 5 Coast Guard cutters fitted for coastal work only, without the proper guns, etc., for overseas duty. Adding these, we have a total of 50 vessels which could not possibly under the conditions have been sent abroad according to Admiral Sims's statement. In addition, it is to be remembered that of the remaining 54 destroyers there were a great many of them old, worn out, and that could not be expected to be in complete repair on the outbreak of war. In addition, there is one converted yacht, the *Isabel*, which we converted into a destroyer after her purchase by the Government. In other words, Admiral Sims's statement as to numbers alone in Europe was 39 from the whole truth. The number owned by the Government and available for going to Europe on April 6, 1917, was 50 from the truth, and the attention of the committee is called to the fact also that there are at least 30 out of this 50 that could not proceed to Europe without convoy fuel ships, etc., and that it would take all of 15 days in favorable weather for them to steam across the Atlantic, so that they could not be expected instantaneously.

Now, here is a list of vessels that has been checked over carefully and I think is correct in every detail. This is the list C-2 that was submitted previously of the destroyers in 1917, with the complements on board in January, 1917, and March 31, 1917. This was submitted previously by Capt. Pratt.

(The list referred to last is here printed in full in the record, as follows:)

C-2.

APRIL 19, 1920.

Destroyers, 1917:

Vessel.	Complement.	On board January, 1917.	On board Mar. 31, 1917.
Allen.....	98	1 A-33	96
Ammen.....	88	1 R-53	96
Aylwin.....	96	1 A-85	91
Bagley (torpedo boat).....	26	1 O-13	13
Bailey (torpedo boat).....	26	1 R-18	41
Bainbridge.....	76	1 A-56	84
Black.....	96	1 A-87	94
Barry.....	75	1 A-86	76
Beale.....	88	1 R-44	60
Benham.....	96	1 A-87	92
Burrows.....	88	1 R-49	74
Cassin.....	96	1 A-81	94
Chauncey.....	82	1 A-79	74
Cummings.....	96	1 A-86	96
Conyngham.....	96	1 A-78	88
Cushing.....	96	1 A-80	98
Dale.....	74	1 A-67	74
Davis.....	98	1 A-98	115
Decatur.....	74	1 A-73	78
Drayton.....	88	1 A-75	79
Duncan.....	96	1 A-85	88
Ericsson.....	96	1 A-72	86
Fanning.....	88	1 A-73	90
Flusser.....	84	1 R-52	64
Henley.....	88	1 R-49	35
Jacob Jones.....	96	1 A-83	94
Jarvis.....	88	1 R-76	80
Jenkins.....	88	1 A-63	72
Jouett.....	88	1 R-44	44
Lamson.....	84	1 R-57	60
McCall.....	88	1 R-49	69
McDougal.....	96	1 A-84	91
Monaghan.....	88	1 R-54	64
Nicholson.....	96	1 A-84	92
O'Brien.....	96	1 A-85	100
Parker.....	96	1 A-88	90
Patterson.....	88	1 R-66	74
Paulding.....	88	1 A-73	48
Porter.....	96	1 A-77	94
Preston.....	84	1 R-39	51
Reld.....	84	1 R-54	34
Roe.....	88	1 R-52	45
Rowan.....	98	1 A-97	95
Sampson.....	96	1 A-83	33
Smith.....	84	1 R-74	80
Sterrett.....	88	1 R-47	48
Stewart.....	72	1 R-42	76
Terry.....	88	1 R-42	42
Trippe.....	88	1 R-45	64
Truxton.....	72	1 R-41	77
Tucker.....	96	1 A-81	95
Wadsworth.....	96	1 A-79	98
Wainwright.....	96	1 A-83	93
Walke.....	88	1 R-44	53
Warrington.....	88	1 R-48	62
Whipple.....	72	1 R-38	73
Wilkes.....	98	1 A-92	96
Winslow.....	96	1 A-83	99

1 Active duty.

2 Reserve.

3 Ordinary.

Admiral McKEAN. In this connection, the following extracts from Capt. Twining's testimony before the Fletcher court of inquiry, as reported in the Army and Navy Register of April 17, 1920, are quoted for the committee's attention:

Admiral Sims was not of the opinion in July and August that it was expedient to send oil-burning destroyers to Brest, for these craft were fully employed from the Queenstown base doing the same work as the forces based on France, and their time would not have been fully occupied. The Queenstown destroyers were employed 65 to 75 per cent on useful work in bringing in supply ships when cargo ships were more vital than transport ships. Another reason for not transferring vessels to Brest was

the lack of facilities there, especially in supplying oil. At that time the submarine campaign was at its height, and every military vessel traveling through the danger zone was an additional responsibility. It was recognized that Brest was of great strategic importance, and British officers often expressed the wish that many destroyers could be based there. When the Queenstown force was increased so that all destroyers available could not be accommodated there, additional forces were supplied Brest.

Also, as quoted from the same source from Admiral Sims's own testimony:

Replying to questions asked by Admiral Fletcher's counsel, he told in detail the concern among the Allies over the rise in losses and decreasing curve of the shipbuilding program. As to the Queenstown destroyers, they were engaged in protecting cargo ships, as few troops were coming in at that time. He had received his orders that troops must be protected even at the expense of merchant shipping. He would have used all the 35 Queenstown destroyers to protect convoys, "but that would not have been done by a decent man," adding: "We should have lost the war had those 35 destroyers not been there, for they furnished the balance of power to the Allies against the submarines."

In this connection Admiral Wilson's testimony before the committee is referred to——

The CHAIRMAN. That is before what committee; before this committee?

Admiral McKEAN. Yes, sir; before your committee here. Admiral Wilson's testimony before this committee is referred to, showing that Admiral Sims, after the sinking of the *Antilles*, sent his first lot of destroyers to Brest, and that after the sinking of the *President Lincoln* he revised his previous attitude as to convoy of troopships, and sent the necessary destroyers to Brest, and in a letter to Admiral Bayly, Royal Navy, justified his detachment of these American destroyers from Queenstown by a very illuminating chart study. Undoubtedly, the chart study was convincing even to Admiral Bayly. Why the same chart study, taken in connection with Admiral Sims's positive orders from the department "that troops must be protected even at the expense of merchant shipping," was not made before and acted upon before is not understood.

From events as they developed during the war and came to my knowledge, from Admiral Sims's letter and testimony, I had been inclined to think that Admiral Sims was very much impressed with the apparently vital necessity of bringing food and munitions into England, which fact was impressed upon him, of course, three times daily in London, and that he had taken an attitude exaggerating the importance of cargo ships and their contents in comparison with the absolutely vital necessity of securing the safety of the troop transports up to the limit of our abilities. I was not in possession of any statement definitely giving this as the London office's view until I read the statement from Capt. Twining's testimony cited above:

The Queenstown destroyers were employed 65 to 75 per cent on useful work in bringing supply ships when cargo ships were more vital than transport ships.

In further explanation of Admiral Sims's attitude of mind and furnishing what I have finally come to the conclusion is the key to this whole discussion, and to Admiral Sims's idea that the Navy Department did not understand him, did not support him, and did not enter whole-heartedly into the war, I quote from the Army and Navy Journal of April 17, 1920, page 1012, third column, paragraph 5:

In a report of the hearings in the Fletcher court of inquiry, Admiral Sims being the witness, "Asked what he meant by warning Admiral Fletcher that in case of the loss

of a ship nothing will save your head or mine, Admiral Sims said it was an admonition, meaning that 'both of us would get racked for it, that's all.' There was a political significance in the loss of ships, he said. In further explanation of 'political significance' he said, 'It may seem heartless for me to say so, but under the conditions it would have been better to have lost troop transports, for we had to save cargo ships at all hazards.' "

As stated above, and prior to my having read this last quotation, I had become impressed with Admiral Sims's over-exaggeration of the importance of cargo ships, but this last quotation shows in his own words that he had got himself into a state of mind in which cargo ships and their cargo took precedence over American troop transports and the troops they carried. I wish here and now to state that in my opinion there was at no time any official or officer of the Navy Department who took this view of the relative importance of cargo, whether British or American, being superior in value or more vital in winning of the war than were the lives of our American soldiers.

After studying Admiral Sims's letter, hearing all the testimony so far presented to the committee, I have come finally to the conclusion that the real cause of this whole investigation lies in the distorted view expressed above by Admiral Sims, and this is the only intelligent, fundamental cause that I can find.

Next is a copy of a letter of Admiral Sims to Vice Admiral Sir Lewis Bayly, at Queenstown, which has already been introduced in the record.

The CHAIRMAN. When was that?

Admiral McKEAN. June 1, 1918, just after the big drive.

The CHAIRMAN. Let that go in.

Admiral McKEAN (reading):

ESCORT ADVANTAGES OF BREST OVER QUEENSTOWN.

[Admiral Sims to Vice Admiral Sir Lewis Bayly, Queenstown.]

LONDON, June 1, 1918.

Referring to your letter of May 19, concerning the relative advantages and disadvantages of escorting troop convoys by destroyers based on Queenstown and on Brest, I have had this matter analyzed by Commander Long, in consultation with the Convoy Section of the Admiralty, and I inclose herewith two memorandums covering these points. I also inclose your letter of the 19th, as you may not have retained a copy of it.

From an examination of these memorandums, it now seems that it would be really advantageous to base the escorting destroyers for our troop transports on Brest.

First, let me say that I have just received information from the department that the three new destroyers at the Azores have been turned over to me and that two new destroyers are coming out directly accompanying troop ships, and are to be retained on this side. These destroyers are as follows: The *Little* (Taussig), *Kimberly* (Johnson), *Connor* (Howe), *Sigourney* (Vernou), and the *Stevens* (Zogbaum).

You will note that four of these are commanded by some of our most experienced escort commanders. As they will need the services of some of these men at Brest, I am sending Taussig's and Vernou's destroyers there. Johnson's and Zogbaum's boats will be sent to Queenstown, thus giving you two experienced commanders. The *Connor* will probably go to Brest. Some time later nine other boats from Queenstown can join the *Little*, the *Sigourney*, and the *Connor*, thus completing the escorting group for troop transports.

The five new destroyers will ease up the situation considerable at Queenstown, not counting the several destroyers now under repairs that will be out soon.

Without having any definite information as to dates, I understand that additional new destroyers will come out before long. I think the department's intention is to make use of them as escorting vessels on the way out.

With the destroyers based on Brest, the legs of the triangle are as follows: Five hundred and ten out to the rendezvous escorting empty transports off the coast, 600

miles escorting troops into the coast, 150 miles returning to Brest from St. Nazaire in case the latter port is the port of destination. In all, this is 1,110 miles escorting and 150 miles not escorting. A total of 1,260 miles.

From this it is evident that destroyers based on Brest can be used with much greater economy of both destroyers and oil.

We expect before long to have a very considerable number of torpedo chasers (110-foot) on this side. Some of these will be based in the Channel and some in the Irish Sea. We hope that these will make it much livelier for the submarine to say the least, not counting the services of the new destroyers, which I hope will be arriving soon.

I expect to be off Monday or Tuesday of next week to visit the mine-laying base in the north. A number of very fine mine layers have just arrived and arrangements are being made to go ahead with the barrage. Upon my return I will have to attend the next meeting of the Inter-Allied Naval Council, and shortly after that I hope to be able to get away for a visit to Queenstown.

However, these are stern and anxious times, and one can never tell when plans will have to be changed.

Very sincerely, yours.

I have here a memorandum in reference to the Navy's policies, which I present in view of some testimony or statements made, and in view of the danger of misunderstanding I think that it should be cleared up. [Reading:]

APRIL 16, 1920.

NAVY'S RELATION TO POLICIES.

There seems to have been some misunderstanding of certain testimony given by certain officers who have appeared before the committee as to the Navy's idea of its relation to the national policies, naval policies etc.

It is important that there should be no misunderstanding of the Navy's conception of its functions in this respect, and that this situation may be cleared up I will give my personal views relative thereto, and I believe these to be the views of a very large per cent of the officers of the service, if not all of them.

The Navy has nothing to do with the formulation of national policies except when called upon for its technical advice by the Congress or the administration as to the Navy which would be required to carry out any policy which the Government contemplates establishing. A case might arise where the adoption of a desirable policy would be shown by the naval and military experts to be too expensive in the Army and Navy; that the Government authorities would rather forego the policy than to stand the expense.

After the adoption of a national policy by the Government, the Navy Department should be informed of this policy, so that it may take the necessary steps to provide an adequate Navy to meet the Navy of that government or those governments with whose policy the adopted policy conflicts; in other words, the Navy and Army should always be familiar with our policies and with the policies of foreign governments with which our policies are liable to conflict. In this way, they, the Army and Navy, can determine the most probable enemy or enemies, and thus obtain a scientific premise on which to base the estimates of the Army and Navy needed to defend our policies.

This is the only logical way that I know of for the Army and Navy to make proper estimates of the Army and Navy necessary for our country. Any other basis would be a pure guess, liable to be too expensive for economy on one hand or too small for efficiency on the other. A navy too small to carry out its mission is the most expensive in money and lives that any country can possibly indulge in. It leads the unthinking to a false security, and instead of carrying out the primary purpose of the Navy, which is to prevent war, it is liable through its very weakness and inefficiency to invite war.

To show the method we follow, there is submitted herewith a copy of the tentative plan of war portfolio. The original of this was produced by Capt. Schofield in the Naval War College in March, 1912. As will be noted from the plan, it involves the State Department, War Department, and Navy Department, each engaged along its own line in estimating the situation and the probabilities of war with any nation.

After a study of policies by the State Department, this includes enemy policies and our own, comparing both of them with international law to show their justice and to show where they conflict. The Army studies the enemy's army, the Navy studies the enemy's navy, and the joint plan-making body, consisting of the Army and Navy, with a State Department advisor or member, meets, when a grand estimate of the situation is made and a decision reached, submitted to the supreme authority—that is

the President, Commander in Chief of both Army and Navy—who issues to the Army and Navy a combined letter of instructions, which comprehends a statement of the strategic plan as embodied in the grand decision, and instructs the War and Navy Departments as to their duties in the execution of the general plans, and makes, as between the two services, the initial distribution of resources, including funds, manufacturing facilities, etc., of the country.

Based on this combined letter of instructions, the naval plan-making body and the Army plan-making body make their service estimates of the situation, and from these are deduced, or on the decision is based, the plan of organization for war, plan of mobilization, logistic plan, plan and organization of temporary bases. On this estimate is based a naval letter of instructions from the Navy Department to the commander in chief of the fleet. This letter includes a statement of the strategic plans and the instructions based on the naval decision and the appended plans. This war portfolio should be in the possession, or copies of this war portfolio should be in the possession, of the commander in chief.

I explain there the theoretical building-up policies. That is based on the detailed plan of a war portfolio gotten up by Capt. Schofield at the Naval War College in 1912, and it shows the different processes that we would go through theoretically in the State Department, the War Department, and the Navy Department to reach a grand estimate of the situation on which the Commander in Chief, the President, would base his letter of instructions to the two services. On that letter of instructions and the general plan the Army and the Navy would each take up and work out its own problems, and you would finally get down to it, and there are your general war plans of the General Board, and from these are deduced, or on the decision is based, the plan of organization for war, plan of mobilization, logistic plan, plan and organization of temporary bases.

Senator PITTMAN. Admiral, may I interrupt you there? Several of the witnesses have spoken of a logistic plan of the war. Would you mind reverting just for a second and giving a definition of the word "logistic" in that connection; purely for the record?

Admiral McKEAN. Yes, sir; I can do that. I was assigned to that subject at the War College once, and I took about three weeks finding out what "logistics" meant.

Logistics, broadly defined, is the science or art of preparing an army or navy for war, the movement of that army or navy to the scene of the war, and its maintenance in fighting condition in the area of that war. It includes, in the Navy, the fitting of the ships, their equipment, their supply of fuel and food and men, their movements across the seas to the scene of the operations, their repair, and maintenance in food, clothing, ammunition, and everything that goes with it, on the scene of war, to get ready to fight.

The same way with an army. An army's logistics are much more difficult than ours. There is more difficulty of transportation, and so forth. We carry our beds, our hospitals, our immediate supplies and our fuel and cantonments, with us—that is, the ship. In the organization of the army logistics involves an immense number of details that we do not have any trouble with. Each unit is complete and is self-sustaining for a certain length of time; even the sick people, until we get to the hospital ships, and then we put them aboard there. When we run out of fuel there is a fuel ship comes alongside. When we get short of grub, there is a storage supply ship comes along. If we get short of clothing there is a supply ship with clothing and consumable stores of all kinds comes alongside.

The Army has to do with motor lorries and wagons. It takes so many more units. Of course, the distances are less for the Army, but their problems are much more complicated than ours.

Senator PITTMAN. It involves a survey of the total production and possible supply of the country?

Admiral McKEAN. Absolutely. It runs back to the smallest little blacksmith shop at the mountain crossroads and every potato patch, and it goes clear to the war front; and that is a big thing. I am afraid that the exhaustive information that the War Industries Board collected of our resources during the war is going to get adrift and be lost if we do not have those records classified, and so on, and preserve them. If we lose them we will have to do it all over again, and that will take a long time. There is more information gathered together now about the industries of this country and about logistics, commencing at the country crossroads and going clear through to France, than we will ever get again, without another war.

Senator PITTMAN. Do you know whether there is any way provided at the present time of perpetuating this information and keeping it more or less up to date?

Admiral McKEAN. I do not; no. I know that the Navy Department is keeping its stuff and getting the history of it; but ours is very small. The War Department is undoubtedly doing the same with its particular stuff.

What the War Industries Board is doing and where their records are and how they are being handled I do not know, but I do know the immense value of them, and I do know that we should keep them together, and I do know that they should be stored in fireproof buildings and cared for and put in useful form, because it would take us just as long again as it did this time to collect that information.

Senator PITTMAN. And it would be just as necessary for the Army as for the Navy?

Admiral McKEAN. Much more so. Their problem is bigger and different. The Army problem is to the Navy problem on that side something in the ratio of their numbers. We got up to 500,000, when they were headed for 5,000,000.

The CHAIRMAN. So that 5 or 10 years from now it would have to be brought up to date?

Admiral McKEAN. Yes; its value would decrease with age.

The CHAIRMAN. Unless it was kept up to date?

Admiral McKEAN. If it was kept up to date it would be useful at any time; and if it did get a little behind it would be a good deal better than to start from the ground up again.

Senator PITTMAN. I asked my question for the reason that in the preparation of the United States naval bill it should be consistent. We have already passed the present naval bill, and in that bill there was an amendment inserted by the Senate committee that provided for the establishment of data relating to reserves.

Admiral McKEAN. That is fine.

Senator PITTMAN. That the committee considered very valuable, so that they might have a complete index of the availability of reserves and the location of reserves.

Admiral McKEAN. Yes, sir; reserve personnel and reserve supplies. I have here a blue print of the tentative plan of a war portfolio. I

will leave this copy for you. You will note that the logistic plan for war has as its first clause:

(a) The initial requirements as to supplies of all kinds.

The CHAIRMAN. Is this the plan you had?

Admiral McKEAN. This is the official plan that we worked on. This has never been published.

The CHAIRMAN. When was this drawn up?

Admiral McKEAN. In March, 1912, and we have used it. The joint Army and Navy board is working on these lines now, and I think that the State Department is or soon will be cooperating so that this, which has been a naval War College dream except so far as the Navy is concerned, is coming into its own. I will just read this logistic plan. [Reading:]

LOGISTIC PLAN FOR WAR.

This plan must show:

- (a) The initial requirements as to supplies of all kinds.
- (b) The probable requirements for subsequent phases of the war.
- (c) The sources of supply and supplies available.
- (d) The organization of the transportation.
- (e) The organization of the naval train.
- (f) A list of available vessels, their characteristics, whereabouts, and places of assembly and alteration, and period required to place them in readiness.
- (g) Detailed plans for necessary changes in the vessels of the train.
- (h) Detailed plans for the assemblage of supplies.
- (i) Plan of the purchase, inspection, and shipping organization.
- (j) Orders necessary for execution of plan.

That same applies to these other subheads: "Plan of organization for war," "Plan of mobilization for war," and "Plan and organization of temporary bases."

I think that is one of the most valuable studies that ever came from a naval war college, including all of Capt. Mahan's books. I will leave it with you.

As will be seen from the above, and as I have previously stated, the Navy has nothing to do with determining national policies, but it does have the responsibility of deducing from these national policies the necessary naval policies to provide for the enforcement of the national policies.

What I wish to make clear is that from every point of view in our Government, the Navy is the servant of the Government, and under no conditions and at no time, does it desire, nor should it be permitted, to dictate policies. This should not be true in an autocratic government, it can not be true in a democratic government such as ours, and no officer contemplates the Navy's taking such attitude.

In this connection the committee's attention is called to a question asked Admiral Niblack where it was suggested that a naval officer might disapprove a national policy, and that such personal disapproval would affect his action. I can imagine cases where an American naval officer might not approve a national policy, but I can not imagine any case where he would disapprove, except by official recommendations made to his immediate official superior, and only then as a technical advisor to show his immediate official superior the dangers, difficulties, expenses, etc., of the policy referred to. But I do not believe that any officer would permit his own personal

attitude or interpretation of a policy to affect his personal or his official action under that policy. That is not the way we are trained.

Also, in this connection, the committee's attention is called to the statement of Admiral Sims in reply to a question of cross-examination, page 301, last paragraph: "We naval officers have made up our minds to one thing, and that is this: That we will never go into another war in the condition in which we went into this. Do not make any mistake about that." I do not believe that even Admiral Sims, under the stress of cross-examination, meant what he said. Further, I am sure that this expression does not and will not meet the approval of "We naval officers." "We naval officers," as I know them after 40 years' service, are neither Prussian militarists or Russian Bolsheviks. We have done as we were ordered. We will continue to do so. That is our job as we understand it under our system of government.

There have been many criticisms of our system. I agree with Capt. Pratt that whatever faults and whatever shortcomings there might be or might have been, or will be in the future, it is more a fault of the system than of any individual or individuals.

And as I stated in a previous heading, it is my opinion that the responsibilities of the Chief of Operations should be definitely stated in the law, and that the authority conferred upon him should be coextensive with these responsibilities.

It is further my opinion that there should be but one naval advisor of military matters, this to prevent confusion and friction, and to permit the Congress and the people to fix the responsibility for the preparation of the fleet for war, and its operation in war.

There has always been a great deal of opposition to a naval general staff. This opposition is based on the theory, apparently, that such a staff would weaken the control of the civilian Secretary. There are certain military functions which must be performed by some body of trained officers, such as the making of war plans, the training of the fleet for war, and its operation during war.

It doesn't make any difference whether you call this body the "general staff" and its head the "chief of staff," or whether you use its present name, the "Office of Operations," and call its head the "Chief of Operations." Whatever the name, the functions must be performed by some one.

The fear that this body will dominate the Secretary is entirely unfounded. Their functions are limited to purely military matters, so technical that no civilian Secretary without any experience can be expected to be competent to handle them. It takes a naval officer a lifetime even to try to fit himself for the job. The Secretary need have no fear of either the organization or its head, for he can at any time change the whole personnel overnight.

From nearly three years' experience in the office of the Chief of Operations, and having held both of the leading assistant positions, and having also acted as chief for seven months, I am convinced that the law creating the office should be revised so as to make the Chief of Operations fully responsible under the direction of the Secretary and the President for the fleet's development, maintenance, training, and operation, and that he should be given the necessary authority and the necessary assistance to enable him to properly meet these responsibilities.

He should, while holding the office, be the senior admiral in the Navy that is provided now, with the full pay and allowances of general in the Army; this to include proper transportation facilities for his personal semiofficial and official use.

His senior assistant, the "Assistant Chief of Operations," should for military reasons and efficiency be, during the time he holds the office, the senior vice admiral in the Navy. The senior assistant who is his chief of staff and who in his absence succeeds to his functions, as happened in this war—Capt. Pratt and I had it for about a year and three months altogether—should be the coordinating authority of the rest, under a chief. He should have the rank of vice admiral. It was sometimes embarrassing for us, as a captain or a camouflaged rear admiral, to be giving orders to admirals at all that sort of thing, and in a real military organization it does not go. It is liable to produce friction.

The CHAIRMAN. What do you mean by a camouflaged vice admiral? Admiral McKEAN. Temporary.

The CHAIRMAN. Does not this provide for that?

Admiral McKEAN. By temporary arrangement, so long as he holds the job, just as the chief of the bureau is now. This is liable to slip off between two days, you know. There is nothing permanent about that.

The CHAIRMAN. It can be taken away while you are still in office.

Admiral McKEAN. Oh, yes, sir. Admiral Niblack, I think, said that all along, during the war, through a sort of gentleman's agreement with the bureaus, I was working directly with the bureaus as assistant for material. There was not any gentleman's agreement. It was just officers doing their duty. The Chief of Operations should have assistants as follows:

Assistant for personnel.

Assistant for material.

Assistant for inspections.

Assistant for plans.

Assistant for communications.

Assistant for information (now Director of the Office of Naval Intelligence).

Assistant for naval districts.

Whether these should be assistants on the same level, as assistants for personnel, material, and inspections, I doubt. It is not necessary that they should have the same rank as the others. But they should be subordinates of the Chief of Operations. There comes in the trouble of rank. I was a captain and was trying to coordinate the duties of men who were rear admirals, most of them permanently; some of them who had been for three or four years; but even my juniors who were acting chiefs of bureaus for four years were, for a military purposes, my seniors in rank and also in pay. But it is not conducive to efficiency, and it is liable to cause trouble. It did not but it helped to train me a little in diplomacy before I got through with it.

The CHAIRMAN. The assistants for personnel, material, and inspections should not have direct authority over the chiefs of bureaus; should they?

Admiral McKEAN. They do not need direct authority. They are all under the control of the plan as approved, and when you get the

plan, they have a common objective. The old bureau jealousies of the old days, I hope that is all gone, because now we have a common objective to work for, and we are all busy, and each sees his line to work on. That reduces friction. It used to be that the bureaus did not have any terminus they were bound for, they did not have definite limitations; they overlapped; and the chief of a bureau spent most of his time trying to gather in some of the functions of the other fellows, to magnify his office; and there is where a lot of the trouble came, and a lot of the Navy Department trouble came. I do not believe we have had any of that since Operations was established, because we all had immediately something we were shooting at, to obtain, and we were playing a team game instead of just individual games.

The CHAIRMAN. But what I mean is that under your plan the chiefs of bureaus would still have entire charge of the bureaus?

Admiral McKEAN. Oh, absolutely.

The CHAIRMAN. And the assistants would be more in the nature of liaison officers between your bureau and the bureaus?

Admiral McKEAN. Yes, sir; but the principle we work on and the fundamental doctrine of Operations from the day it was organized has been never to interfere with the interior economy of any bureau or any navy yard. Tell them what you want; give them the plan—their part of it; inspect the results. But it was their job, their duty under the law and under our conception of our duty. There it was. We did not interfere; and when any of us forgot ourselves the chief was very prompt to rap us across the knuckles and put us back where we belonged; and when I say, "us" that did happen with some of the juniors. As they came in, if from lack of experience they stepped over the fence, they were warned off, and we apologized to the fellow whose business had been interfered with.

The CHAIRMAN. But this plan is for operations for the future?

Admiral McKEAN. Yes, sir. I have suggested legislation, if you wish to go that far with it.

The following memorandum, submitted by Admiral McKean, is here printed in the record.

NEW LEGISLATION.

Repeal:

103 (1) There shall be a chief of naval operations, who shall be an officer on the active list of the Navy appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy, not below the grade of captain, for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet, and with the preparation and readiness of plans for its use in war. (Act Mar. 3, 1915.)

(2) Hereafter the chief of naval operations, while so serving as such chief of naval operations, shall have the rank and title of admiral, to take rank next after the Admiral of the Navy, and shall, while so serving as chief of naval operations, receive the pay of \$10,000 per annum and no allowances. All orders issued by the chief of naval operations in performing the duties assigned him shall be performed under the authority of the Secretary of the Navy, and his orders shall be considered as emanating from the Secretary, and shall have full force and effect as such. To assist the chief of naval operations in performing the duties of his office there shall be assigned for this exclusive duty not less than 15 officers of and above the rank of lieutenant commander of the Navy, or major of the Marine Corps: *Provided*, That if an officer of the grade of captain be appointed chief of naval operations he shall have the rank and title of admiral, as above provided while holding that position: *Provided further*, That should an officer, while serving as chief of naval operations, be retired from active service he shall be retired with the lineal rank and the retired pay to which he would be entitled had he not been serving as chief of naval operations. (Act Aug. 29, 1916.)

And substitute:

"There shall be a chief of naval operations who shall be an officer on the active list of the Navy appointed by the President, by and with the consent of the Senate, from among the officers of the line of the Navy, not below the grade of rear admiral, for a period of four years, who shall, under the direction of the President, or of the Secretary of the Navy, under the direction of the President, be charged with the development, maintenance, and operation of the Navy, and with the preparations and readiness of plans for carrying out the foregoing. To assist the chief of naval operations in performing the duties of his office there shall be assigned for this exclusive duty an assistant chief of naval operations, an assistant for personnel, an assistant for material, an assistant for inspection, and such other officers as the chief of naval operations may deem necessary. The chief of naval operations shall perform such other naval duties, not otherwise assigned by law, as may be assigned to him by the President.

"The chief of naval operations, while serving as chief of naval operations, shall have the rank and title of admiral, and shall while so serving as chief of naval operations receive the pay of \$13,500 per annum and allowances, including automobile. The assistant chief of naval operations shall, while so serving, hold the rank of vice admiral, the assistant for personnel, the assistant for material, and the assistant for inspection, shall while so serving hold the rank of rear admiral, but be senior to chiefs of bureaus, and in the absence of the chief of naval operations will perform his duties in the order named.

"All orders issued by the Chief of Naval Operations in performing the duties assigned him shall be performed under the direction of the President or of the Secretary of the Navy, under the direction of the President, and his orders shall be considered as emanating from the President or the Secretary of the Navy, under the direction of the President, and shall have full force and effect as such.

"Should an officer while serving as Chief of Naval Operations be retired from active service, he shall be retired with the lineal rank and the retired pay of a rear admiral of the upper nine."

Change:

104 (1) The business of the Department of the Navy shall be distributed in such manner as the Secretary of the Navy shall judge to be expedient and proper among the following bureaus:

- First, a Bureau of Yards and Docks;
- Second, a Bureau of Equipment;
- Third, a Bureau of Navigation;
- Fourth, a Bureau of Ordnance;
- Fifth, a Bureau of Construction and Repair;
- Sixth, a Bureau of Steam Engineering;
- Seventh, a Bureau of Supplies and Accounts; and
- Eighth, a Bureau of Medicine and Surgery (sec. 419 R. S.), as follows:

The business of the Department of the Navy shall be distributed in such manner as the Chief of Naval Operations, under the direction of the Secretary of the Navy, shall judge to be expedient and proper among the following bureaus:

- First, a Bureau of Yards and Docks;
- Second, a Bureau of Equipment;
- Third, a Bureau of Navigation;
- Fourth, a Bureau of Ordnance;
- Fifth, a Bureau of Construction and Repair;
- Sixth, a Bureau of Steam Engineering;
- Seventh, a Bureau of Supplies and Accounts; and
- Eighth, a Bureau of Medicine and Surgery (sec. 419 R. S.).

Change:

104 (2) The several bureaus shall retain the charge and custody of the books or records and accounts pertaining to their respective duties, and all of the duties of the bureaus shall be performed under the authority of the Secretary of the Navy, and their orders shall be considered as emanating from him and shall have full force and effect as such (sec. 420 R. S.) as follows:

Change the words "under the authority of the Secretary of the Navy" to read "under the authority of the Chief of Naval Operations under the direction of the Secretary of the Navy."

Change:

104 (5) The General Board of the Navy shall, under the direction of the Secretary of the Navy, perform such duties as are set forth in section 13 of this chapter and such additional duties as may be prescribed from time to time by competent authority as follows:

Change from regulation and make law—

The General Board of the Navy shall, under the direction of the Chief of Naval Operations under the direction of the Secretary of the Navy, perform such duties as are set forth in the following paragraphs and such additional duties as may be prescribed from time to time by competent authority.

(a) "The General Board shall be composed of Chief of Naval Operations, the Assistant Chief of Naval Operations, the major general commandant United States Marine Corps, the assistant for personnel, the assistant for material, the assistant for inspection, the Director of Naval Intelligence, the chiefs of all bureaus on matters concerning their bureaus, and such officers as the Chief of Naval Operations, under the direction of the Secretary of the Navy, may designate.

"This function of this board shall be purely advisory. It shall be within their province to consider any subject presented in due form at any meeting. Executive meetings will be held once a week, at which either the Chief of Naval Operations, Assistant Chief of Naval Operations, the assistant for personnel, assistant for material, or assistant for inspection shall preside. It shall be the duty of the Secretary of the Navy to call a meeting of the General Board at any other time he may so desire to consider and be advised upon any subject he may present to the board, and to demand if he so desires both the majority and minority reports on the subject for further advisement and adjustment between himself and the Chief of Naval Operations.

"The annual report of the General Board as constituted above shall be submitted to the Secretary of the Navy for incorporation and publication in the Secretary's Annual Report with such comments or recommendations as he, the Secretary, may desire to make thereon."

All other articles and paragraphs of articles under chapter 2, section 1, not otherwise changed by above law shall stand as at present.

Admiral McKEAN. To continue, the Chief of Operations should ex officio be head of the General Board, which board should be composed of his assistants who are heads of divisions, and in addition the chiefs of bureaus should be ex officio members and should be present at all discussions of general policies. So that they are in sympathetic touch on the whole thing, from the ground up.

The General Board should determine all naval policies, and when any of these policies have been approved by the Chief of Operations and the Secretary of the Navy, they should then be taken up by the Plans Division of Operations and worked out in as much detail as the information available and the conditions of the problem will permit.

In other words, the General Board under this arrangement would be a policy board. The plans board would take those general policies and work them out into the detailed administrative and operative plans.

The war plans will show the fleet, its organization, personnel, and bases required. This is shown on this blue print. From this information the bureaus concerned can readily determine their requirements for new construction, maintenance, additions to personnel, etc., to enable them to carry out their part of the plan. This same information will enable each of the bureaus to make up its estimates. By adding to the sum of the above estimates, the administrative expenses, we have the annual budget for the whole Navy, obtained in the same way that we now obtain the aeronautical budget, and it would then be handled as is the aeronautical budget; that is, by allocation by the Secretary of the Navy to the various bureaus of sufficient funds to enable them to meet their part in the military plans.

In this connection the committee's attention is called to the great advantages of the aeronautical budget which has enabled us to change expenditures as the changed conditions demanded, without going back to Congress for permission to apply it somewhere else. It was extremely valuable, of course, in aviation, which was changing

so rapidly, because when we asked Congress for an appropriation for a particular thing, that thing was out of fashion, often, before we got the money at all.

Now, as to the strategy of the World War from the American point of view, the World War, in so far as the United States is concerned, was like every other war overseas, which required the cooperation of the Navy and Army. In the ordinary course of such a war, the Navy first clears the sea routes, seizes the landing places, then transports the troops and their supplies to the seized port or base, and thereafter its functions consist of keeping the lines of communication open and secure, and on the completion of the war, it returns the invading Army to the home country.

The other function of the Navy in such a war is to cut the lines of sea communication of the enemy, prevent his obtaining reinforcements and supplies from overseas, and also in blockading his ports to prevent allies or neutrals from furnishing the enemy munitions or other supplies.

The Army's function after landing is to defeat the enemy by defeating his armies and overrunning his country and compelling the population to submit to its will.

In this war, our allies had cleared the seas of enemy trade, had blockaded his ports and were in absolute control of the sea, except for enemy submarines, so that on our entering the war, our major and primary mission was to transport enough troops with their munitions and supplies to France to turn the war on the western front in favor of the Allies. We did this successfully in spite of submarines and without the loss of a single life by the enemy submarines on the way to war.

Prior to our undertaking the transfer of our Army to France, the largest troop movement in history for any distance had been the movement of about 200,000 troops from England to Cape Town in the South African War. This was considered a remarkable success, although there was no resistance to the movement at sea, other than the natural difficulties of sea transport. The movement extended over about the same time that our troop movement covered, and I think I am safe in stating that no officer of any Army or in any Navy would have believed that we, or any other nation, could possibly have moved 2,100,000 soldiers 3,000 miles at sea in the face of enemy submarine activities without serious losses, and I for one am perfectly willing to confess that I feared such losses.

I do not think that any undertaking in the whole of the World War was of greater magnitude or of greater difficulty, nor do I believe that any of the number of various successful undertakings of the war was more successfully and efficiently carried out than this unprecedented movement to France, and equally unprecedented, so far as numbers are concerned, return of troops from France. This only could and did succeed through the heartiest cooperation of the Army and Navy, and the credit is equally due to both. It is a fifty-fifty proposition.

Our secondary mission, secondary in magnitude and importance, simultaneous as to time, was the suppression or control of the submarine menace, so as to reduce it below the point where it could prevent adequate supplies of troops, food, munitions, and fuel reach-

ing the ports of our allies. That is as far as it was necessary to control or reduce it.

Our part in the suppression or control of the submarine menace was comparatively small, commencing three years after the World War had opened with the arrival of our six destroyers in Queenstown on May 4, 1917, one month after the declaration of war.

There has been a great to-do about our alleged delay in entering whole-heartedly into the war and sending immediately all our anti-submarine and other forces, even including battleships, overseas. As previously explained in this paper, there were many good and, to me, sufficient reasons why the immediate sending of all craft that afterwards were sent was a physical impossibility, and here I wish to state that in my opinion the stripping of our coast of all of its defensive vessels in the first weeks of the war, when we had a perfect right to expect from the demonstration already made by the German that he would send submarines to our coast to break up at their origin off our ports our supplies of food, munitions, and troops, and while there has been a great to-do about the war all being "over there," the submarine menace was all "over there." It could very readily and very profitably, in my opinion, have been made "over here." As a raid, I mean. Imagine the result in the early stages had the three submarines that came in 1918 arrived off our ports of New York and Capes of Virginia in April, 1917. Public opinion and the Congress, I fear, would not have permitted us, had we so desired, to strip the coast, and in my opinion such an attack at that time would have so upset our plans that we would not have been able to organize a sufficient convoy force for our troops; that is, early in the war would not have been able to send any patrol ships abroad, as we did later, and the placing of 2,100,000 soldiers in France with 600,000 of them at the fighting front when the armistice was signed would have been made impossible for at least a year after it was actually done as we worked it out.

It is my opinion that the retaining of the patrol force on our own coast, the organizing of our harbor defenses, mines, nets, etc., was an absolutely correct military step of itself, on the principle that you organize the defense before you launch the offense; and besides, this permitted us to repair, equip, and dispatch different groups and different units in much better condition and much readier for effective service than would any of these units have been had we attempted to send them by telegraph, as seems to have been suggested in Admiral Sims's testimony.

It is further my opinion that the method pursued was absolutely the correct one; that there was no delay which could be avoided in the repair and equipment of the vessels sent; that there was no delay that could be avoided in building additional vessels of the destroyer type; that there was no delay that could be avoided in the purchase and conversion of the yachts, the equipment of the Coast Guard vessels, or the building, training, and assignment of submarine chasers. I believe the Navy Department in this respect did the absolutely correct thing from the military point of view, and that it should be complimented instead of cursed for the way it did it.

As to the effect of a submarine attack on our coast, attention is called to what actually happened in 1918 and the difficulties we had to avoid a congressional resolution directing the executive authorities

to retain more forces on our coast. As to conditions then, see Senator Lodge's statement of June 6, contained in Annual Report of the Secretary of the Navy for the fiscal year ending December 1, 1918, pages 3, 4, and 5.

To sum up the strategy of war, the Central Powers could win either on western front or on the sea through the success of the submarine in shutting off the supplies from England long enough to starve her population into submission.

The Allies could lose the war either on the western front or on the sea through the submarine menace.

The submarine menace, unless fully effective in reducing tonnage and supplies to the necessary minimum to feed the English population and English Army, or fully effective in preventing the movement of our troops across the seas, should not have any real effect on the war or the date of its conclusion, and it failed utterly, in my opinion, to affect the war in favor of the Central Powers or against the Allies. It could have been, to be a success at all, a complete success. Instead, it was a complete failure.

The Allies could win the war in only one place, and that was on the western front, and they could only win there by our successfully supplying troops in large numbers, trained and equipped, ready to take their place on the fighting line.

As everyone knows, we so succeeded in the movement of our troops that the armistice was signed on November 11, 1918, when the Supreme Allied War Council had not expected to completely defeat the enemy before the spring of 1919.

Attention is called to the statement of Gen. Bliss as to quotations from Gen. Haig. That is in the letter submitted to the committee, where he did not expect the American forces to take any less time in training than was given his troops, that is, nine months in England and five months in France. He said, "On that basis, the American force will not be available in the front lines in force until next year," meaning 1919.

Therefore, from this point of view, instead of our having delayed the close of the war by four months, or any other length of time, we through the efforts of our Army and Navy, in advancing the date of the arrival in France of sufficient troops to defeat the Hun, had advanced the date of the close of the war from, say, May 1, 1919, to November 11, 1918, or a period of about five and one-half months. Or to use the absurd figures used by Admiral Sims, we saved 3,000,000 tons of shipping, \$18,700,000, and 625,000 lives.

This estimate of time is conjectural, but no more so than that of Admiral Sims's four months' delay, and is based on correct premises and on what actually happened and not on incorrect premises and statements as to what anyone thinks might have happened.

Now, as to the statement as to Admiral Sims's duties in London, Admiral Sims complains frequently and bitterly of lack of assistance in doing his job. From my knowledge of Sims's duties, as they were understood in the department, he was, at first, looking for complete information as to the situation in general, and as to how we could best assist the Allies, as an agent of the Chief of Naval Operations, and later became liaison officer with the British Admiralty. He was on the ground to send us fuller information than we had been able to get

for ourselves, because the Allies were not willing to give us real inside dope before we went into the war.

To aid him in this duty, all naval attachés in Europe were placed under him, sent all their information through him, and he himself was finally made attaché in London at his own request. Thus in information gathering he had quite a little assistance, other than his aid.

There is no doubt that Admiral Sims should have had additional assistance; much more than he had, as his duties expanded, but likewise, there is no doubt that we were all short handed, in Washington, in the fleet, and in the districts as well as in London.

Operations appreciated Admiral Sims's need for assistance. The committee should note that, shortly after Admiral Benson's arrival in London—when he sent battleships, and the duties were extended—Capt. Schofield, head of the Plans Section in the Office of Operations, was sent to London, and that at various times Capts. McNamee, Knox, Sexton, and others were sent to help out, and every one of those officers was badly needed in the main office here, on the same kind of work, at home, and their absence increased the load, already heavy, that each of us was carrying. This load killed our best man, others broke down from time to time and had to be given a rest, but I never heard one of them squeal.

It is my opinion that Admiral Sims himself was responsible for a part of the difficulties of which he complains, in that he assumed broader functions and reached for higher powers than it was intended he should have.

He was liaison officer; he was attaché; he did have the title and duties of the office "Commanding United States Naval Forces in European Waters"; he was our representative on the Allied Naval Council (which met monthly or as was deemed advisable). All of these summed up and each given its proper limit can best be expressed by one title, "Assistant Chief of Naval Operations with Office in London." That is what he was and that is all that he was.

Had he so limited his functions as to bring them all within this title, he would not have gotten the erroneous impression that he now apparently holds; that is, that the Navy Department should have become a rubber stamp to register and file his decisions. What Operations wanted was his recommendations with his reasons for making them; upon receipt of these recommendations and reasons, Operations would, after giving full consideration to the policies of the State Department, the necessities of the War Department, the condition of our industries, of our sea tonnage, of the Allies' food supplies, of our fuel supplies, of our transportation and labor here at home, make its decision and leave the execution to him, which was his job. This was absolutely necessary as Admiral Sims could not know and did not know about home conditions as shown by his testimony about the draft, etc. Further, it was not his business to know.

In his testimony he suggests that all allied appeals for help, which were made to the department should have been made to him. How ludicrous this is when one knows that these appeals here in Washington from special missions in reference to almost every industrial product known to our country, became so numerous that in self-protection we had to have the Allies appoint an allied council

to whom these various claims were presented, and the joint demands were then pooled, arranged, in the order of their importance, presented by the allied council to our War Industries Board before they could be considered. And this allied council eliminated immense numbers of the unessentials, and they made an entire change when they pooled all interests. Before that the Britishers watched the French and the Frenchmen watched the Italians and the Italians watched the Britishers and the French, and they were competitors in a limited market; and we had to watch all the time, ourselves.

The various departments, including the Navy Department, declined in many of these cases to even act as special attorney for a sister service before the War Industries Board on these matters. To have even considered them in London would, with the lack of information as to home conditions, have been ridiculous, and would have led to no result, except confusion and disappointment.

The volume of business done in this connection by the Office of Operations with the various other departments, State, War, Labor, Commerce, and Shipping Board, was such as to require numbers of private wires for direct and confidential communication and a record of the messages exchanged with these various departments would compare in bulk even with the voluminous correspondence from Admiral Sims, although I hope it would not contain so many unnecessary repetitions.

To sum up, it was and is my opinion that Admiral Sims was given as free a hand within his proper area of discretion as the conditions permitted, and as was necessary for him to successfully perform his various duties. His admirable performance of the job is the best evidence that can possibly be produced before the committee that he had the necessary authority to meet his proper responsibilities.

The CHAIRMAN. Is that all of your statement, Admiral?

Admiral McKEAN. That is all of my direct statement.

The CHAIRMAN. I stated some time ago, Admiral, that the committee would ask you to submit suggestions for changes that might be necessary or advisable in the organization of the department, and you have to-day outlined a plan.

Admiral McKEAN. Yes, sir.

The CHAIRMAN. And you have no further suggestions to make in regard to that?

Admiral McKEAN. I have a definite, rough—or rather hurried; it is not rough—suggestion as to the legislation necessary to reach the conclusion.

The CHAIRMAN. Is that included in this paper you have offered?

Admiral McKEAN. That is in that annex.

The CHAIRMAN. Then that is in the record with that plan?

Admiral McKEAN. Yes, sir; and the recommendations for new legislation is already attached. That is just simply a personal suggestion. That is mine. That, I think, will cover that line.

The CHAIRMAN. The committee will adjourn until to-morrow morning at 10 o'clock.

(Thereupon, at 1 o'clock p. m., the subcommittee adjourned until to-morrow, Friday, April 30, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

FRIDAY, APRIL 30, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met pursuant to adjournment in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale, presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

TESTIMONY OF REAR ADMIRAL JOSIAH S. McKEAN—Resumed.

The CHAIRMAN. The committee will come to order. Admiral McKean, before the outbreak of war with Germany on April 6, 1917, were you provided with any general plan by the department to govern your action in getting the material of the Navy ready?

Admiral McKEAN. I was. The general plan of the General Board. We were all familiar with it. It consisted of the A fleet, the base fleet; the B fleet, that came next; and the C fleet, the war fleet. And, as I understood the plan, and my job, it was to prepare bases of supplies and to prepare facilities, etc., to build up the C fleet and to maintain it in war.

The CHAIRMAN. Was this a special plan for the war with Germany?

Admiral McKEAN. It was what we called the Black plan. We never spoke of Germany, but we called it the Black plan.

The CHAIRMAN. When was it developed?

Admiral McKEAN. My recollection is that the first Black plan was developed in 1913 and revised in 1915, and revised to suit the conditions of the World War as we understood it before going into it, and with the information we then had under that plan of February, 1917. The plan of February, 1917, was the last plan.

The CHAIRMAN. Is that the plan that Admiral Niblack—I think it was—referred to as having existed from time immemorial in the department?

Admiral McKEAN. I did not understand Admiral Niblack to say this particular plan had existed from time immemorial. I understood him to say that plans had existed from time immemorial; that is, at all stages of the development of the Navy there was somebody somewhere in the department that was supposed to have a plan for what might be done. I never knew of any plans in any branch of the Navy Department until the General Board built up general plans and made studies of bases and lines of operations, etc., for use in possible war against either black, red, or orange.

The CHAIRMAN. Could you give us this base plan to which you refer, as it existed on February 2, 1917?

Admiral McKEAN. Could I give what?

The CHAIRMAN. Could you give the committee a copy of this plan as it existed at that time?

Admiral McKEAN. I think the General Board's plan—I do not know whether the ship's names, etc., were put in, but I think we can get it from the General Board, unless Admiral Badger put it in. He put in the policy upon which the plan was based. It is not a definite, worked out, detailed plan. It gave the policy and it gave the fleets, the A, B, and C fleets, and their constitution and numbers and types.

The CHAIRMAN. But you say it was prepared with reference to this special war?

Admiral McKEAN. Oh, no. The one between February 4 and February 17, based on Capt. Chase's letter to the General Board, or sent by the Secretary, prepared by Capt. Chase, and the plan returned, I think as of date February 17—was it not, that letter of the General Board returning that?

Capt. PRATT. Yes.

Admiral McKEAN (continuing). That is the lost plan.

The CHAIRMAN. But if there was such a plan, why was there any need of writing about any further plan?

Admiral McKEAN. That was the plan at that time, a plan for general war; or, rather, a special war in which we were engaged against Germany alone. The plan of February, 1917, was a plan to suit the conditions when we had allies, and the submarine menace was the primary naval motive.

The CHAIRMAN. But you said that the plan was kept up-to-date. Was it not known before February, 1917, that if we went into the war we would have allies against Germany?

Admiral McKEAN. Well, if we went in against Germany before Germany succeeded in stalemating the others; yes.

The CHAIRMAN. And yet no plan was ready at that time for such an event?

Admiral McKEAN. I do not think there was a detailed plan for the special conditions; no. I never saw one. We worked up the details of the plan as the situation developed, and that was the only practical way, in my opinion, Mr. Chairman, of doing it.

The CHAIRMAN. You can give us the plan, can you, as it existed on February 2, 1917, for the record?

Admiral McKEAN. Yes; I will get that out of the files of the General Board.

The CHAIRMAN. And then you will also give the plan as supplemented at any time between February 2 and April 6, 1917?

Admiral McKEAN. I can not do that, because the only copy of that plan is the lost one.

The CHAIRMAN. Then it was not supplemented?

Admiral McKEAN. It was supplemented by the plans that Capt. Pratt submitted here—sectional plans.

The CHAIRMAN. But those are simply memoranda. They are not parts of the plan.

Admiral McKEAN. They are distinctly parts of the plan, made to carry it out.

The CHAIRMAN. Were they embodied in the plan?

Admiral McKEAN. We did not have time to stop and write things into plans, Senator. We were operating. They were carried out.

The CHAIRMAN. I think Capt. Pratt testified that those were simply memoranda, and that they were carried out later on, at later periods, some after the war commenced and some not carried out at all?

Admiral McKEAN. Yes.

The CHAIRMAN. What I want is something definite that we can show as an existing plan.

Admiral McKEAN. Your General Board's general plan is the foundation of these memorandums. I do not know there were other memoranda.

The CHAIRMAN. You would not say that simply making memoranda kept the general plan up to date, would you?

Admiral McKEAN. If it was circulated with authority to the subdivisions which carried out the plans, the O. K. on that was an executive order for each of us subordinates to prepare our part of it.

The CHAIRMAN. It was just as much a plan as the other was?

Admiral McKEAN. Yes, sir.

The CHAIRMAN. But in many cases there were no particular O. K's on these memoranda.

Admiral McKEAN. If they were not O. K'd either in writing or orally, that did not become a part of the approved plan of the office, before Capt. Pratt came in, and after Capt. Pratt came in as the assistant for operations, Chase and I, working together—he would pass a plan or a part of a plan over to me orally, and we would discuss it, and discuss it sometimes with our chief, and if it needed the Secretary's approval he would take it up with the Secretary. But it was often, as I say, disposed of orally, and they would say "Go ahead and furnish the material at such and such a date."

The CHAIRMAN. But as I understand, a general plan is a plan that the whole department is supposed to operate under, and you can not say that the department can operate under a plan some parts of which are written out and some parts of which are in the form of memoranda that only one or two know about.

Admiral McKEAN. There were plenty of things we did not want but one or two to know about. I could get my people, the material side going, and Chase could get the operating end, whichever it should be, going, when the chief gave us a force. We did not have to put it on paper always, or have to have it approved always. We started ahead. We shot lots of plans, parts of them, out to the yards and other people; and it was just as much a plan, Senator, as if it had been written down and published by the Public Printer.

The CHAIRMAN. It may have been a plan for the people who knew about this specific condition; but for the rest of the Navy, it certainly could not have been.

Admiral McKEAN. The rest of the Navy did not need to know it; only those who had to do with it. For instance, the people in London did not have to know about a base plan.

The CHAIRMAN. You are talking now about a general base plan for the Navy.

Admiral McKEAN. No, sir; I am talking about a general base plan, the General Board's plan. The details of that plan were no part of the Navy's—

The CHAIRMAN. But you said that the general base plan included amendments that were made from time to time.

Admiral McKEAN. It does. They amended it and changed it and developed it. But it does not of necessity, Senator, go to everybody. It is not everybody's business, lots of it.

The CHAIRMAN. You can not give us this general base plan as amended?

Admiral McKEAN. Impossible; there is no such thing in existence; no such thing in existence.

The CHAIRMAN. It does not seem to me to be a very specific plan.

Admiral McKEAN. It was as specific and complete in details as was necessary for the officers concerned to operate under effectively and efficiently, in my opinion.

The CHAIRMAN. Were you informed of the kind of service for which the American naval vessels would be used in the war before April 6, 1917?

Admiral McKEAN. Do you mean informed by higher authority?

The CHAIRMAN. Informed by the department.

Admiral McKEAN. I was one of the people who determined how they should be used. I did not have to have anybody tell me.

The CHAIRMAN. Did the base plan lay out the manner in which these vessels should be used?

Admiral McKEAN. Not in detail, no, sir; but I knew what vessels I was called upon to get ready materially for use overseas or for use at home and for use otherwise.

The CHAIRMAN. And thereafter to this you would add a specific plan for the use of all the ships of the Navy at that time?

Admiral McKEAN. Do you mean by a specific plan, something reduced down on paper?

The CHAIRMAN. Something in writing?

Admiral McKEAN. I did not, but I had it in my head, and I was working on it every day.

The CHAIRMAN. But you had nothing that was written out?

Admiral McKEAN. Oh, yes, sir. There were these material policies, Capt. Pratt's memoranda, Capt. Chase's memoranda, and discussions and conferences with my chief, and conference with all of us. I got my instructions as to what to do.

The CHAIRMAN. That is, there were a lot of ideas and a lot of memoranda, but undigested?

Admiral McKEAN. We did not have to write them down in order to digest them. We digested them at the time and got action. We would have a discussion as to a certain part of the plans, and they would say, "What will that require in material," and I would ask the question, "What is it you want in the material way and when do you want it; what type of ships?" and so forth. Then they would say, "We will need so many destroyers, so many patrol boats, and so many of this, that, and the other."

The CHAIRMAN. And they would let you know just what they would be used for?

Admiral McKEAN. Yes. I knew.

The CHAIRMAN. All of the vessels required?

Admiral McKEAN. What is that?

The CHAIRMAN. You knew what all the vessels required would probably be used for?

Admiral McKEAN. I knew that, too; but we shifted from week end to week end, as the ships became available. I worked out the types I could get quickest and get ready to send out on the order; but I did not stop to write out plans or to make anybody else do it. I made instructions for my subordinates and sent the orders by telephone, by cable, or by telegraph, whichever way I could get it to them quickest.

The CHAIRMAN. Upon what information and instructions did you base your action with regard to improving the matériel condition of our naval vessels?

Admiral McKEAN. What is that, sir?

The CHAIRMAN. Upon what information and instructions did you base your action with regard to improving the matériel condition of American naval vessels?

Admiral McKEAN. Of improving?

The CHAIRMAN. Yes; prior to the war.

Admiral McKEAN. On my knowledge of what each type of vessel was intended for and fitted for, and how we could best fit her in the shortest time at the least expense for that job, and knowing from the discussions and from the plans what job came next and where we could use it.

The CHAIRMAN. And you received instructions from the head of the department?

Admiral McKEAN. From the chief of operations.

The CHAIRMAN. From the chief of operations?

Admiral McKEAN. Yes, sir, or from the assistant chief, Chase, or Pratt, saying they wanted certain ships.

The CHAIRMAN. What were those instructions prior to the war?

Admiral McKEAN. Oh, that was a general instruction prior to the war.

The CHAIRMAN. What were those instructions?

Admiral McKEAN. To get everything ready as fast as you can.

The CHAIRMAN. The general instructions were to get everything ready as fast as you could?

Admiral McKEAN. Yes, sir.

The CHAIRMAN. When did you receive that?

Admiral McKEAN. I was moving from July 1, 1915, when I went in there, along those lines, as I showed in these policy letters.

The CHAIRMAN. Did you receive instructions on July 1, 1915, or shortly thereafter, to get everything ready?

Admiral McKEAN. That was my chief's instruction.

The CHAIRMAN. To get everything ready for war?

Admiral McKEAN. That was the position of the whole Navy Department, to get them ready for war. That was the purpose of the Navy Department. We started just as soon as the office was organized. We worked right along. Of course, as our chances of getting into the war became more and more pressing, we each of us felt more and more urgent on the question.

The CHAIRMAN. Well, there could not be very much more urgent instructions, could there, than to get every vessel ready for war? And that, you say, you got in 1915.

Admiral McKEAN. We attempt to keep every vessel ready for war at all times. That is the only use we have for a naval vessel.

The CHAIRMAN. You mean that is July 1, 1915?

Admiral McKEAN. That was the general policy. I do not know about the practice.

The CHAIRMAN. So that there was not any special instruction?

Admiral McKEAN. It was not necessary. I was in touch every day with the Secretary and with the Chief of Operations.

The CHAIRMAN. But every vessel was not gotten ready for war, was it?

Admiral McKEAN. Absolutely not, no, sir. I am very sorry to say that they were not.

The CHAIRMAN. Did you receive any definite instructions to prepare the light forces of the Navy for distant service?

Admiral McKEAN. The light forces of the Navy? Gunboats, you mean, and so forth—destroyers?

The CHAIRMAN. Gunboats, cruisers, and destroyers.

Admiral McKEAN. Not special instructions, until they commenced to pick out groups: "Get 12 submarines ready;" "Get 6 destroyers;" "Get so many destroyers, right away. See which ones you can pick out and get the quickest. We would like to send such and such a group at such and such a date."

The CHAIRMAN. That, however, was after the war began, was it not?

Admiral McKEAN. I do not think there were any special instructions as to special vessels before the war broke out, but under the general instructions I was doing exactly as I did after I got my special instructions. I was doing the best I could with the material I had to get them all ready.

The CHAIRMAN. I asked you if you had any definite instructions to prepare the light forces of the Navy for distant service?

Admiral McKEAN. Not until after the war.

The CHAIRMAN. Not until after the war?

Admiral McKEAN. No, sir; no special instructions.

The CHAIRMAN. When did you first receive such instructions?

Admiral McKEAN. I do not recollect.

The CHAIRMAN. Was it in regard to the six destroyers that were sent over?

Admiral McKEAN. I think it was the first special order or group, was to get six destroyers ready. But still, we were working on that before, Senator.

The CHAIRMAN. But you received no particular instructions to do it?

Admiral McKEAN. No, sir; no special, detailed instructions.

The CHAIRMAN. And thereafter you received further special instructions about other destroyers that were decided on to go over, did you?

Admiral McKEAN. Often they would ask me how soon I could have a bunch, and when they would go. It hinged often on the material conditions when they would go. I would pick out the ones from the yards that I could get ready quickest to make a uniform group. I would tell the operating end, "I can give you such and such destroyers on such and such a date, and have them at such and such a place." They would say, "All right; we will send those abroad." We tried to send them by divisions—groups of six.

Here I would like to explain what does look as if there might have been neglect. There are practically 46 oil-burning destroyers—23 with the fleet and 23 on other duty.

Senator KEYES. When?

Admiral McKEAN. On April 6. It appears, just to a casual observer, that 23 destroyers not with the fleet and not in condition to move overseas immediately was pretty bad management.

The CHAIRMAN. Especially after the order of January, 1915.

Admiral McKEAN. After what, sir?

The CHAIRMAN. After the order of January, 1915, to get the fleet ready in every possible way.

Admiral McKEAN. That was July, 1915.

The CHAIRMAN. July, 1915; yes.

Admiral McKEAN. A number of our destroyers, the new destroyers, had defective units. Some types had defective machinery, giving us a lot of trouble; some of those turbines. Some of them were not finally accepted, and the contractors had to make good on them. These were not sent with the fleet. They were kept at home, and they were being used on neutrality duty at the ports, protecting our neutrality, escorting neutral vessels in and out, or belligerents, and protecting our neutrality; so that I could not get hold of them for repairs. They would send them to the yards for a very short time.

The CHAIRMAN. Were they afterwards repaired?

Admiral McKEAN. Yes, sir.

The CHAIRMAN. And put in foreign service?

Admiral McKEAN. Yes, sir.

The CHAIRMAN. And the faults in their construction, et cetera, were known before, were they?

Admiral McKEAN. Oh, we were trying to correct it all the time, but I could not get them at the yards for long periods, because they were on active duty. They were standing watch, and relieving each other, and they would take a turn-around in three or four days. I would have them available at the yards to do what I could do in three or four days. You can not take the machinery and engines down, take the machinery apart, and get it together again in three or four days, much less do repairs. So that we were caught in what was apparently a bad condition. But we were doing the best we could under the conditions, with the yards we had.

The CHAIRMAN. After our entry into the war were you given any general plan of operations to guide your activities?

Admiral McKEAN. I did not need any.

The CHAIRMAN. You were not given any general plan?

Admiral McKEAN. No, sir; I did not need any. I was working under general instructions.

The CHAIRMAN. Would you say that the Secretary of the Navy's report for 1918 was accurate when he stated that the Navy was ready from stem to stern?

Admiral McKEAN. I would have to ask the Secretary what he meant by that. I think that is a newspaper phrase used in the seaman's way, and you had better ask him just what he meant. I would not want to criticize him until I knew.

The CHAIRMAN. Would you say yourself that the Navy was ready from stem to stern?

Admiral McKEAN. From my interpretation of that phrase I would not, by a good deal.

The CHAIRMAN. After we had entered into the war did you receive any particular instructions about preparing the light forces for war service?

Admiral McKEAN. As I told you before, from time to time I would either get orders for a bunch, or they would ask me what I could give them, and which I could give them soonest; and we all worked right there together in the same office. We did not have to ask special instructions. We knew what we were trying to do, all of us.

The CHAIRMAN. How long did it take to get the destroyers, gunboats, submarines and other light craft in a condition of material readiness for war?

Admiral McKEAN. Some of them two days, some two months, and some of them six months.

The CHAIRMAN. How long was it before substantially all of them were in readiness for such war?

Admiral McKEAN. Those dates of sailings of the destroyers and those vessels that went over to the other side were in that table we submitted. I of course can not remember all those details.

The CHAIRMAN. The table gives the destroyers. I do not think the table gives the other boats.

Admiral McKEAN. It gives 139 that we had over in the first year.

The CHAIRMAN. You refer to those that were sent over to Admiral Sims?

Admiral McKEAN. Those that were sent over to the other side And in this large table here sent in reply to your inquiry I think that data is practically covered.

The CHAIRMAN. That simply refers to battleships, cruisers, and destroyers.

Admiral McKEAN. Battleships, cruisers, and destroyers. Well, your gunboats, etc.—

The CHAIRMAN. By the way, Admiral McKean, I would like to have the information, giving it in a list which you can supply, giving the same conditions about the other light forces of the Navy.

Admiral McKEAN. Will you please give me, Senator, just what light forces?

The CHAIRMAN. I would like to have the condition of all of the ships of the Navy on April 6, 1917.

Admiral McKEAN. You want the gunboats?

The CHAIRMAN. We already have the gunboats and battleships and destroyers. I would like to have the same information in regard to the other vessels of the Navy at that time.

Admiral McKEAN. Gunboats, yachts.

The CHAIRMAN. All of the vessels of the Navy at that time.

Admiral McKEAN. Very well, sir; I will get it from Operations.

The CHAIRMAN. Can you answer the question I asked you: How long did it take to get the destroyers, gunboats, submarines, and other light craft in a condition of material readiness for the war?

Admiral McKEAN. I could not answer definitely, ship by ship.

The CHAIRMAN. Then can you tell me at what period of the war these vessels were all in readiness for war?

Admiral McKEAN. Never, at any time; and never will be.

The CHAIRMAN. Substantially all in readiness for war?

Admiral McKEAN. Oh, I should say six months.

The CHAIRMAN. Six months?

Admiral McKEAN. Six months, in a general way. But of course there were ships breaking down and going back to the yards and wearing out. They would have to go for overhaul. I do not

think you can ever count, Senator, on more than 80 per cent of your battleships being with the fleet, and not over 75 per cent of your destroyers, and the smaller your craft the less the per cent of time they will be with the fleet—operating, I mean. And you can not operate submarines—I do not think the Germans operated submarines more than one-third of the time.

The CHAIRMAN. That is to say, even when a fleet is in active operation and prepared for war there are always certain vessels that are under repair?

Admiral McKEAN. Always. That is why under the old policy of the building program you built five ships when you wanted four in a division.

The CHAIRMAN. Did you have any difficulty in securing approval of your plans for building up the material of the Navy at any time?

Admiral McKEAN. Oh, yes, sir; I had certain minor difficulties. I had delays. I had to convince my chief first of the necessity of it. I sometimes had difficulty in convincing the Secretary when it involved money. I often had difficulty in presenting the thing to committees of Congress and getting the money, even after the Secretary had approved the estimate. But at no time did I have difficulty in getting a hearing. If I could prove my case, why, I could in time get action. It would not go as fast as I wanted it to. I would have liked to have had all the appropriations all at once.

The CHAIRMAN. Did you meet with any unnecessary delays in your dealings with the Chief of Operations or the Secretary?

Admiral McKEAN. Unnecessary?

The CHAIRMAN. What you regarded as unnecessary?

Admiral McKEAN. Oh, from my point of view any delay, after I was convinced, would be unnecessary, you know, Senator. From their point of view it would be necessary for them to consider it. I often got very, very impatient. But they were responsible, and not I. I was responsible for the recommendations. They were responsible for the decisions.

The CHAIRMAN. Did you meet with any delay that in view of what happened afterwards did not seem justifiable to you?

Admiral McKEAN. Oh, I could not cite examples. I think if they had accepted my recommendations as soon as made, and Congress had given me the money as soon as I wanted it, there is no doubt that we would have been better prepared on April 6, 1917; and with the hindsight, I have no doubt that the Secretary, when he did not agree with me right away, and the committees when they did not give me more than half as much money as I asked for, with the hindsight now, I suppose they are both regretting it. I regretted it at the time.

The CHAIRMAN. Did you find any trouble in getting appropriations from Congress after February 2?

Admiral McKEAN. I do not recall any after February 2. I think they gave us the first emergency appropriation then, and they told us to come and ask for what we wanted, and told us practically to spend what we wanted and they would make it good in deficiency bills; and after April 6 I never hesitated, if I could get the approval, at spending money—I knew I would get it somewhere—and committing the department to the policy of spending money. After war was declared, Senator, we had all the money that we could use.

The CHAIRMAN. Did Congress turn down any of the recommendations that you had made and that were indorsed by the Secretary, after the sinking of the *Lusitania*?

Admiral McKEAN. I have forgotten the date of the sinking of the *Lusitania*.

The CHAIRMAN. I think it was in May, 1915.

Admiral McKEAN. Well, it took me 18 months to get an appropriation for the operating base at Hampton Roads, after the Secretary had approved it.

The CHAIRMAN. Was it explained to Congress by the Secretary that those bases were vitally necessary for war?

Admiral McKEAN. After I convinced him, he backed me up and gave me letters to the committees of Congress, and gave me full swing to fight it out myself and prove to Congress that we needed it. He backed me clear to the limit, and it took me 18 months to get it.

The CHAIRMAN. Did he back you to the extent of informing Congress that in case of a war these matters were vitally necessary?

Admiral McKEAN. I do not remember that he used that language, but he backed me.

There was the same thing in reference to the Coco Solo base. It took me two sessions of Congress to get that, after I had the backing of the Secretary; and I do not think there was any bill, Senator, except one, on which we did not get cut down on our estimates. If we had asked Congress for the amount of money that was needed to develop those yards and bases and establish the aviation bases, etc., finally, in time of peace, we would have been laughed out of court. We would not have gotten a cent.

The CHAIRMAN. Do you think that if Congress had been informed that in case of a war we would be very much handicapped if we did not have these various things that you are asking for, they would have refused to grant you what you asked?

Admiral McKEAN. I do not think I hesitated to inform them what I thought about those things in the hearings, Senator, and they were cutting down, and they trimmed and delayed. I remember the Committee on Appropriations on the Coco Solo base, when I asked for a certain amount, cut it in two. I went back the next time and told them the price had gone up, and it would cost them for that half they had left out 50 per cent extra, because labor and material had gone up, and Mr. Fitzgerald turned to Mr. Sherley and said, 'You had better let him have it, Sherley, because he will keep on coming back until he gets it, and it will cost very much more.' They were not objecting, but I had not convinced them of the absolute military necessity of it. That is all I ever based a request for an appropriation on.

The CHAIRMAN. Do you not think that the department has gotten into the way of asking for rather more than it has expected to get, with the expectation of having its requests shaded down?

Admiral McKEAN. That runs back a long time, Senator. I think they used to, and other times I think they asked for less, because they kept—

The CHAIRMAN. I am referring to appropriations now.

Admiral McKEAN. Yes; they kept part of the responsibility themselves, because they were afraid to come to Congress with the whole thing. For instance, on building programs: I remember a discussion

at the War College in 1912. I said I thought it was about time we told Congress the truth, the whole truth, and nothing but the truth, and quit carrying a part of the burden of responsibility of the legislative body, and that we should make an estimate of the situation, of what we needed, never mind if it was 50 ships and we knew that Congress would not give it; that it was our duty as technical advisers to give them the whole program, and then we had washed our hands of the responsibility and put it upon the legislative body of the country, and if they did not want to fully prepare us, that was their responsibility and not ours any more after we had told them everything, if they would cut appropriations. They would say, "Congress will not give you that. What is the use of putting it in?" But sometimes there was an inclination, I think, on the part of certain people to ask for a little more to give the committees a chance to exercise economy in trimming down. But I think that has all gone out of fashion. I think that they give you a perfectly frank estimate based on the plans for the coming year. I know we tried to establish that.

In the hearings of last year before the House Naval Committee, when I was acting chief of operations, I took up the fleet as we would have liked to have it in commission, so many ships in full commission of each type, so many in reserve, and so forth, and the bureaus in turn took that same list. Navigation first said that it would require for this program so much personnel. Construction and Repair took it up and said it would require so much money for the new program, so much charge for maintenance, and so on. Steam Engineering did the same thing; made their estimates for engines, maintenance, and charges, and all based on this fleet that we planned to keep in commission and in reserve; and I think that in that hearing every bureau based its estimates and this year all the bureaus have based their estimates on the plan of Operations, and I believe that it is one of the best things that Operations has done. It has gotten it all together on the same plan.

The CHAIRMAN. You say that the Secretary was backing you to the limit in your requests?

Admiral McKEAN. On those particular things.

The CHAIRMAN. On those particular matters?

Admiral McKEAN. On those particular matters.

The CHAIRMAN. To prepare the country for the war?

Admiral McKEAN. Oh, I do not think that the Secretary or I ever said "Preparing the country for war."

The CHAIRMAN. I asked you if you put up to Congress that you needed this in case of war.

Admiral McKEAN. Oh, I always told them in the hearings that this was necessary for operations during the war.

The CHAIRMAN. And was the Secretary backing you up in that position?

Admiral McKEAN. I do not know as he used those phrases, but he said they were necessary.

The CHAIRMAN. Was he not at the same time giving out to the country his opinions that we would not get into war, and that the President was keeping us out of war and would keep us out of war?

Admiral McKEAN. I have forgotten all of those speeches.

The CHAIRMAN. I assume that if that was his position with the country it must necessarily have been his position with the committees.

Admiral McKEAN. There were a good many people who were thinking that at that time.

The CHAIRMAN. A good many, yes; unfortunately.

Were you given any indication as to what use should be made of the heavy forces of the Navy?

Admiral McKEAN. At what time?

The CHAIRMAN. Prior to our entry into the war, and immediately thereafter.

Admiral McKEAN. Well, Capt. Pratt told you that we had discussions as to the best use of the capital ships. There were two opinions. One was to use them exclusively for training, and move them to the Pacific. The final one was to keep them on this side ready for duty. I had not any particular instructions as to what duty they might do, but I knew, generally, and what was necessary in a material way, I was to get them ready to fight as fast as I could.

The CHAIRMAN. You were not given then any specific instructions about getting them ready?

Admiral McKEAN. No, sir.

The CHAIRMAN. When were you first informed of the possibility that the battleships might be sent abroad?

Admiral McKEAN. When was I first informed of the possibility?

The CHAIRMAN. Yes.

Admiral McKEAN. I do not know that I ever was informed, but I realized it all the time, that they might be called upon at any time for duty anywhere.

The CHAIRMAN. But you were not informed of any plan to send them abroad?

Admiral McKEAN. Oh, when they took up the sending of Rodman's division of five?

The CHAIRMAN. Whatever battleships were sent.

Admiral McKEAN. I was informed that we were to get those ships ready right away. I knew it as soon as Operation's decision. I knew it as soon as the decision was made. I was right there.

The CHAIRMAN. And that was the first plan that you heard of about sending the battleships abroad?

Admiral McKEAN. Oh, not the first plan.

The CHAIRMAN. Well, the first order to do something about it?

Admiral McKEAN. The first order; yes, sir.

The CHAIRMAN. What was the material condition of the dreadnought division at the end of July, 1917?

Admiral McKEAN. Of the dreadnought division?

The CHAIRMAN. Yes.

Admiral McKEAN. July, 1917. This table does not cover that. The *Wyoming* was not at the navy yard for overhaul after the 3d of February. The *Utah* was—

The CHAIRMAN. She was still in the navy yard until July.

Admiral McKEAN. The *Utah* was in the navy yard in July. She was there for nearly five months.

The CHAIRMAN. The *Wyoming* was back with the fleet then, was she?

Admiral McKEAN. The *Wyoming* was with the fleet. Her last day in the navy yard in 1917 was February 3. The *Texas* was out of

the yard at that time. She had her time there, but in July, 1917, she was out of the yard.

The CHAIRMAN. Was she in A-1 condition as to the material?

Admiral McKEAN. My recollection is that the *Texas* was in first-class condition until she ran ashore.

The *Pennsylvania* was in good condition. She was in 20 days; to June 20.

The CHAIRMAN. Admiral, I suggest that you prepare a list of the dreadnoughts at that time, at the end of July, 1917, and submit it to the committee.

Admiral McKEAN. Very good, sir.

The CHAIRMAN. And also accompanying vessels that were with the fleet at that time.

Admiral McKEAN. Well, that was all—the predreadnoughts.

The CHAIRMAN. The predreadnoughts were not with the dreadnought division, were they?

Admiral McKEAN. They operated from the same base.

The CHAIRMAN. Well, cut that out, and simply give the dreadnoughts at the end of July, 1917.

Admiral McKEAN. July 31, 1917. Aye, aye, sir.

The CHAIRMAN. And also give with it a list of the vessels that were in A-1 condition as to material at the time to go with the fleet.

Admiral McKEAN. Now, what do you mean by "A-1" condition?

The CHAIRMAN. Why, that were ready for war.

Admiral McKEAN. Ready for foreign service.

The CHAIRMAN. Ready for foreign service, yes.

Admiral McKEAN. I do not think there was a ship with the fleet that was not in the yard at that time that if you had asked her captain he would not have said she was ready for foreign service.

The CHAIRMAN. And you think they were so ready?

Admiral McKEAN. Most of them, yes, sir.

The CHAIRMAN. Do you think they were also ready as to personnel?

Admiral McKEAN. On July 1?

The CHAIRMAN. At the end of July, 1917.

Admiral McKEAN. At the end of July; yes.

The CHAIRMAN. All of the dreadnoughts?

Admiral McKEAN. Yes; they were not as efficient as they would have been, or as they were on the day they took the first armed guard crews out of them, because they had been used for training purposes.

The CHAIRMAN. That was sometime before the war?

Admiral McKEAN. That was in February; and that performance continued, you know; and they had been used for training. They were so used. Even the dreadnoughts were used for training up to February, 1918. I happen to know, because the training was stopped except for certain special forces, on the dreadnoughts, when I went to the *Arizona*, February 15, 1918. From that time on we had no training of armed guard crews or extra guns' crews. We only trained turrets' crews and oil-burning firemen for the ships of our type that were going to sea, the *Mississippi*, *Idaho*, and *New Mexico*.

The CHAIRMAN. When was the construction of the new destroyer program suggested?

Admiral McKEAN. When was it first suggested?

The CHAIRMAN. Yes.

Admiral McKEAN. My first suggestion—that is all I can speak for—I have a memorandum here of the rapid building of a large flotilla of destroyers, that has no date on it, but checking up—this is my own memorandum—I find it was about June 1, 1917.

The CHAIRMAN. Was it not suggested in April?

Admiral McKEAN. I have no doubt that there were discussions, and plans to produce, or calling for, a large number of destroyers. My memorandum was more on how to produce them from material point of view. But my recollection is that we all recognized the values of the destroyer as the final submarine killer as soon as we got the information from abroad, at all. I think we realized it, when we went into the war.

The CHAIRMAN. When was it approved?

Admiral McKEAN. Do you mean the big program?

The CHAIRMAN. What?

Admiral McKEAN. Do you mean the final, big program, or the first part of it?

The CHAIRMAN. I mean the construction program for destroyers—for new destroyers.

Admiral McKEAN. Here is the list in the hearings before the House committee. This is "Monday, December 30, 1918. Statement of the Hon. Josephus Daniels, Secretary of the Navy." This is page 870 of those hearings. Here is a list of the destroyers commencing with the *Gwynn*, No. 71. That gives the date authorized by Congress, the date of appropriation, the date of the order to the builder, and the per cent or date of completion. The *Gwynn* had been built up in the northwest, under the appropriation of March 3, 1915, or was building.

The next is destroyers Nos. 75 to 109, inclusive, and Nos. 345 to 359, inclusive; are building under the three-year building program of August 21, 1916.

The CHAIRMAN. I am asking you about a new destroyer program.

Admiral McKEAN. Yes; a new destroyer program. Do you mean after the war?

The CHAIRMAN. After the war began; yes.

Admiral McKEAN. Well, there were 15 destroyers, Nos. 95 to 109, inclusive, that were appropriated for March 4, 1917. That was before the war.

Fifteen destroyers, Nos. 345 to 359, inclusive, were appropriated for July 1, 1918.

Seventy-six destroyers are being built under the emergency fund in the act of March 4, 1917. That was allocated by the President.

One hundred and fifty destroyers, the big program, Nos. 186 to 385, inclusive, are building under appropriations for increase of the Navy, torpedo boat destroyers, in the naval deficiency bill of October 6, 1917.

The CHAIRMAN. But 75 were provided for by Congress on March 4?

Admiral McKEAN. Seventy-six.

The CHAIRMAN. Seventy-six?

Admiral McKEAN. Were built under that emergency fund in the act of March 4, 1917.

The CHAIRMAN. And the plans for them were approved in July, were they not?

Admiral McKEAN. March 4, 1917, is the date of the appropriation. As for the date of the order, some of them were ordered March 28, some May 17, some June 18, some July 15, and one August 7.

The CHAIRMAN. And the contracts were not let until December?

Admiral McKEAN. Oh, no, sir; here are the contracts—the dates of the orders. The contracts for those 76 were July 20, 1917, and the big bunch, 150, authorized October 6, 1917, commencing at No. 186, the bill appropriates October 6, 1917; the contracts or dates of orders were October 11, October 9, for three, October 11, October 11, October 9, October 15, October 9.

The CHAIRMAN. Was the construction of any of these destroyers started on before November, 1917?

Admiral McKEAN. The actual construction?

The CHAIRMAN. The actual construction?

Admiral McKEAN. I have here the ships under construction for the end of every quarter, all in type, commencing in January, 1917, and if you will tell me which particular destroyers you refer to—

The CHAIRMAN. When was the construction of the destroyers authorized March 4, 1917, actually begun?

Admiral McKEAN. That is Nos. 110 to 185, inclusive. The first time that 110 appears, the contract was let to the Union Iron Works, but nothing was done; but they appeared in the April 10, 1917, up to No. 118. The contract had evidently been let.

On July 10, 1917, contracts up to No. 135 had been let, and work was progressing on everything up to No. 118. That includes 8 of that 76 from Nos. 110 to 185. The first 8 of them were at the Cramp Shipyard, and the Union Iron Works, 3; the work was going on; had been started in the report of July 10, 1917. The next report is October 10. It gives the destroyers separately.

The CHAIRMAN. Were any of your destroyers that were in that list available during the war?

Admiral McKEAN. I do not think any of those—I can get that out of the ships' data book. I do not believe any of those were completed in time to be available during the war. These are Nos. 110 to 185 [after examining book] it is pretty hard to pick them out, they are so mixed up, Senator.

The CHAIRMAN. I think there were eight new destroyers that were actually used during the war.

Admiral McKEAN. How is that?

The CHAIRMAN. I think there were eight new destroyers that were actually used during the war, unless I am mistaken.

Admiral McKEAN. Were they of that program or of an earlier one?

The CHAIRMAN. They may have been earlier.

Admiral McKEAN. You see, they were built in bunches. That three-year building program gave us authority to build 20 right away. It gave us 15 the next year and 15 the next year. Then later it gave us the authority to build the whole of that program making a total of 50 available; but that was not until we got new authority. Then the 76 came along, and then 150.

The CHAIRMAN. You state that work was being done on these that were authorized, on March 4. Do you mean that their keels were being laid?

Admiral McKEAN. Oh, no sir. These figures give the assembling of material, etc. These figures are based on the contractor's returns

through the inspectors, showing what the contractors' percentage of pay is that is due. This is the percentage of total completion. They might have all the material assembled, and they got to doing that before the end of the war, not only assembled but cut, punched and built up into sections; and when the ways were clear they took and put the sections that they had riveted up, and up to the capacity of their crews, and then assembled them. They did not lay a keel, but they picked them up and put them in place and bolted them together and shoved them off.

The CHAIRMAN. Had the assembling been done on any of these boats until December?

Admiral McKEAN. December, 1917?

The CHAIRMAN. Yes.

Admiral McKEAN. On any of these boats?

The CHAIRMAN. Yes.

Admiral McKEAN. I doubt it. I do not think they had gotten up to that speed of construction at that time.

The CHAIRMAN. We spent about \$500,000,000 on destroyers during the war, did we not?

Admiral McKEAN. We built a total, yes; I should say of about that. The total cost established, when completed at war prices, may be a little more.

The CHAIRMAN. And can you tell me how many were in use during the war, of the new ones?

Admiral McKEAN. No, sir; I can not, now. I could not give you those figures.

The CHAIRMAN. Was everything done during the first few months of the war to place all the light craft of the Navy in such condition that they could be sent abroad immediately?

Admiral McKEAN. Yes, sir; within my capacity as assistant for material, and the capacity of the bureaus to furnish material, and the capacity of the yards to do the work.

The CHAIRMAN. Did we have any other ships available that could have been sent over to take the places of any of the 139 that were sent over to Admiral Sims, available on April 6?

Admiral McKEAN. On April 6 there were in the patrol force certain ships, but most of them later got over and were included in the 139.

The CHAIRMAN. I asked you if there were any others besides those that went over in the 139 that could have been sent over on April 6?

Admiral McKEAN. The *Dolphin*, that was down at Key West, as I recollect it, the flagship of the patrol to protect fuel oil, I think, at that time. I have forgotten.

There was a possible vessel here in Washington, the President's yacht, the *Mayflower*, that might have been sent. I do not think she should have been.

The CHAIRMAN. Then you do not know of any other ships, except included in that?

Admiral McKEAN. I do not know of any others now; no, sir. I think we sent everything as fast as it was materially ready and the military program would permit of its going; and by the end of the year I think we had everything that we thought could go or would be of any use over there. That was the intent as I understood it.

The CHAIRMAN. How long does it take to construct a seagoing tug?

Admiral McKEAN. I suppose there are some tugs in existence, Senator, that have taken as much as three years to construct. I suppose that there are wooden seagoing tugs that have been built in three months.

The CHAIRMAN. Three months?

Admiral McKEAN. I would not give much for the three months' tug, and I think that we could, under normal conditions of labor and material, etc., probably build a good seagoing tug in six months, and under war pressure, if we had had the material, we could have built in that time one, or a few, in less time; not many.

The CHAIRMAN. In less than six months?

Admiral McKEAN. Yes; not many, because we could not get the material. It was already mortgaged or claimed. Priorities would run against it. You would have had to hunt a hole which was not occupied in which to build it in the first place. Then you would have had to steal the material from some other purpose. You would have had to get the labor and fuel for it, and transportation and everything through the priorities board, before you could undertake it. We filled up all yards—and the Shipping Board—with tug orders and trawler orders and mine-sweeper orders, and we were just as urgent as we could be to get them through. Some yards did very well and some fell down entirely—failed entirely. It was luck if you got them in even normal time with war pressure.

The CHAIRMAN. And we were more likely not to get them at all?

Admiral McKEAN. There were tugs enough ordered by the Navy Department and the Shipping Board that when the armistice came we canceled half of our orders because they had not even had the ways to start them on, and we would pay for the material and some of the work and cancel them. We did not need that many. The Shipping Board canceled a great many more than we did. But as to the wooden tugs built in a rush out of green timber, all you have got to do is to look at the wooden ships built by the Shipping Board.

The CHAIRMAN. But if it had been an emergency case and the department had bent its every energy to have tugs built, they could have built and sent a number of tugs over in six months, could they not?

Admiral McKEAN. It was an emergency case; it was so treated; and we did not succeed in building the tugs in six months.

The CHAIRMAN. And when did you order them?

Admiral McKEAN. We did not have anything but emergency, Senator.

The CHAIRMAN. That may be true.

Admiral McKEAN. But there were so many emergencies. Sea-going tugs authorized by Congress October 6, 1917, from the emergency fund. That was the date of the appropriation. Date ordered, April 17, 1918; three and six. The rest of the 24 were ordered May 18.

The CHAIRMAN. 1917?

Admiral McKEAN. 1918. That appropriation was not available until October 6, 1917.

The CHAIRMAN. But, as you said before, appropriations would have been immediately available if asked for, for any purpose.

Admiral McKEAN. This was an emergency fund this was taken from. You could not authorize building without having some fund to put it in.

The CHAIRMAN. This was taken from emergency funds?

Admiral McKEAN. From the emergency fund of October 6, 1917; yes, sir. We usually had every emergency fund overspent by the time that it was deposited to our credit in the Treasury Department.

The CHAIRMAN. So that you really could go ahead without having the emergency fund on hand?

Admiral McKEAN. Not for new construction—a new program, in fact. They would not feel justified in doing that.

The CHAIRMAN. But you would have gotten it at any time? Congress was in session and ready to follow any recommendation?

Admiral McKEAN. I think that Congress was doing business pretty fast. They were perfectly willing to do anything I knew of.

The CHAIRMAN. Now, I have a great number of questions that I want to ask you, and I do not want to shut off any information you can give the committee, but if you will make your answers as brief as possible, Admiral, I would like to get through this morning.

Admiral McKEAN. I will try to; yes, sir. I want to get through.

The CHAIRMAN. What information did you have as to the situation abroad immediately after the outbreak of war?

Admiral McKEAN. Immediately after?

The CHAIRMAN. Yes.

Admiral McKEAN. It has all been testified to here. The first information we got from the British Admiral and the French Admiral. That came to me second hand through my superiors. I was not present at the conference.

The next information we got was Admiral Sims's cable and followed by his letter. Of course, we were getting such information as our attachés could acquire, but they were not getting much except what the press had.

The CHAIRMAN. Your principal information was through Admiral Sims?

Admiral McKEAN. After he got over there; yes, sir.

The CHAIRMAN. After he got over there?

Admiral McKEAN. That is what we sent him for.

The CHAIRMAN. And were you informed of his recommendations and requests as soon as made?

Admiral McKEAN. I saw all of the official correspondence sent to the department. It was referred around to the heads of the divisions.

The CHAIRMAN. Practically as soon as it was received?

Admiral McKEAN. I think so.

The CHAIRMAN. What instructions were you given, if any, concerning compliance with these recommendations or requests?

Admiral McKEAN. Compliance with them?

The CHAIRMAN. Yes.

Admiral McKEAN. Why, it was to make every effort to meet the different ones that they decided they would approve, as soon as possible.

The CHAIRMAN. After they had decided to approve them?

Admiral McKEAN. Yes; after the suggested scheme was approved.

The CHAIRMAN. By the——

Admiral McKEAN. By the Chief of Operations.

The CHAIRMAN. The Chief of Operations and the Secretary?

Admiral McKEAN. And the Secretary. Sometimes only by the Chief of Operations.

The CHAIRMAN. But they were not given out to the department until so approved?

Admiral McKEAN. No; they were circulated in Operations for our information.

The CHAIRMAN. Oh, they were, before they were approved?

Admiral McKEAN. Yes; for information. Lots of them were typewritten and sent about for information.

The CHAIRMAN. And discussed before approval?

Admiral McKEAN. And then action would be taken immediately.

The CHAIRMAN. And they were discussed before approval?

Admiral McKEAN. Yes; discussed in conference. We would sometimes read them all together, and each of us bring up points and ask what action we should take on this, and what action we should take on that, and then we would go back to our office and shoot it out.

The CHAIRMAN. Do you know of any delay on the part of Operations in regard to any of these recommendations?

Admiral McKEAN. I do not know of any such delay. I was not operating; I was only furnishing material, etc. I did the best I could and I think they did, and any unnecessary delay either the Secretary or Admiral Benson will have to answer about. I did not know.

The CHAIRMAN. If there were any unnecessary delay it was not on the part of Operations in carrying out these recommendations, was it?

Admiral McKEAN. I can only answer for the material side.

The CHAIRMAN. I did not say there was any unnecessary delay. I said if there was any it was not on the part of Operations, was it?

Admiral McKEAN. I can only answer for the material side. So far as my part of it was concerned, no.

The CHAIRMAN. Capt. Laning in his testimony stated that in March, 1917, you brought up at a conference of officers in Operations the question of formulating a plan to govern the Navy in case of war. Can you tell me anything about the circumstances?

Admiral McKEAN. I remember Laning was in my office. He was my senior assistant for material. I remember his doing like other officers and submitting his views and recommendations, but I do not remember the particular ones he refers to.

The CHAIRMAN. Did you bring up the question of formulating a plan?

Admiral McKEAN. Oh, I made my memorandum—my estimate of the situation—yes.

The CHAIRMAN. You suggested the formulating of a general plan at that time, did you?

Admiral McKEAN. Not of a general plan; no—a policy.

The CHAIRMAN. A policy?

Admiral McKEAN. Yes, sir; but from which we could work out detailed plans.

The CHAIRMAN. What became of your suggestion?

Admiral McKEAN. I have looked for that memorandum, and I have forgotten what the items were; but I remember one of them was a present of \$1,000,000,000 to France to square up for what had happened before, and to Great Britain, two billions, with the suggestion that we were not buying their real estate, but we would accept it if they would turn it over to us—all that they had on this side. Those were two that I happen to remember.

The CHAIRMAN. Those were matters that came up in this plan of yours to govern the Navy in time of war?

Admiral McKEAN. No; they were suggestions as to what action we should take when we entered the war. This was before the war opened.

The CHAIRMAN. Yes.

Admiral McKEAN. Each of us was giving our ideas.

The CHAIRMAN. And your ideas had nothing to do with what the Navy was to do, but simply the general policy of the Government?

Admiral McKEAN. Oh, yes; those were just ideas that were passed ahead. My recollection of it is that it was about two pages long.

The CHAIRMAN. But they were the principal points? The principal plan was to get ready, to give us a plan to govern the Navy in time of war, was it not?

Admiral McKEAN. I think, Senator, you have got a wrong idea of a plan, or you have got a different idea from what I have.

The CHAIRMAN. Have you a copy of the plan?

Admiral McKEAN. No, sir; I have not that memorandum. I have looked for that, but I could not find it. In my many movements I have destroyed it. But it was the policy, what we should do; and Capt. Laning and other officers put in the same sort of thing. They had all those suggestions, and they were boiled down and the responsible heads took out of them what they thought was good and then they told us to get busy and do them.

The CHAIRMAN. Why did you need to do that if there was already a plan in operations in existence?

Admiral McKEAN. Well, maybe we did not need to do it.

The CHAIRMAN. What?

Admiral McKEAN. Maybe it was not necessary that we should have done it; but each of us had some ideas of our own, and we made suggestions and recommendations.

The CHAIRMAN. Did you not make the suggestion yourself that a regular plan be drawn up to meet the special conditions of a war with Germany?

Admiral McKEAN. Yes; I think probably in conference with Capt. Chase I suggested it. I talked it over with him. I do not know where the suggestion came from, but that was probably the cause of that letter of his.

The CHAIRMAN. And was such a plan approved and put in force?

Admiral McKEAN. There was such a plan received. That is going back again to the lost one. I do not recall, Senator, ever having seen that plan or what it looked like or what it contained; but I do know the lines that it was worked out along, and we were working along those lines both before and after, all the time; and an outline of that plan is in Capt. Chase's letter to the board or the Secretary's letter.

The CHAIRMAN. Of your plan?

Admiral McKEAN. No; not my plan. I do not recall the details. I remember Laning working on plans, and I had suggestions and everybody else had them.

The CHAIRMAN. I know, but I am talking not about a detailed plan; I am talking about a plan for getting up a policy for carrying on the war against Germany, which according to Capt. Laning you suggested, and which, as far as I can see, was never paid any attention to.

Admiral McKEAN. Oh, yes; it was considered. Anything I submitted to my chief, in proper form, was given consideration.

The CHAIRMAN. Well, I can not see that any such plan was ever drawn up.

Admiral McKEAN. I do not recall what Laning refers to. He has got a better memory than I have.

The CHAIRMAN. At any rate, no such plan was followed?

Admiral McKEAN. I did not make one that was followed; no, sir.

The CHAIRMAN. I am talking about a plan to have a regular policy for the war.

Admiral McKEAN. Yes, sir; I think we had a policy for the war. It was to do everything that we could to help the Allies where they told us we could best help them and in the direction that they suggested, and that Admiral Sims recommended.

The CHAIRMAN. I asked you, Admiral, if you did not bring up at a particular conference of officers in Operations the question of formulating a plan to govern the Navy in case of war—not a plan itself, but the question of formulating a plan?

Admiral McKEAN. I do not remember it. I do not remember whether I suggested such a plan or not.

The CHAIRMAN. At any rate, you do not remember that any such plan was formulated?

Admiral McKEAN. No plan of mine was formulated and carried out.

The CHAIRMAN. I know, but this was not necessarily your plan. This was the question of the formulating of any plan. You do not know that any such plan was formulated in following your suggestion?

Admiral McKEAN. Not unless the general board's plan would be the result.

The CHAIRMAN. Would it not have been a good idea, if such a plan had been formulated?

Admiral McKEAN. Yes; it might have relieved me of doing some administrative planning work myself; but I would have had to have a change just as often as the plan itself or conditions themselves changed; I would have had to make the change myself in the subordinate plans.

The CHAIRMAN. Now, with regard to the delay in getting contracts for ordnance material approved, to which Capt. Laning referred, what means did you employ to get favorable action?

Admiral McKEAN. Ordnance material?

The CHAIRMAN. Yes.

Admiral McKEAN. I do not recall that I took any particular steps as to ordnance material. That would be for the Chief of the Bureau of Ordnance. I might have, at his request.

The CHAIRMAN. I think he handed you some memoranda?

Admiral McKEAN. I do not recall it.

The CHAIRMAN. And asked you to take action on it?

Admiral McKEAN. I do not recall, Senator. At the request of one of the material bureaus in that way for my support, I would push just as hard behind a scheme as I could with the Chief of Operations and with the Secretary. I do not recall the incident.

The CHAIRMAN. Do you recall Capt. Laning handing you any memoranda in reference to the 14-inch shells, and torpedoes?

Admiral McKEAN. No; I do not recall that except as Laning spoke of it. I remember something of the sort, and I must have

thought about it, because in my memorandum you notice suggestions of mine that we get the Hatfield process for production of armor-piercing shell.

The CHAIRMAN. Do you recall any delay in connection with this matter?

Admiral McKEAN. I do not know what happened. I know that they did not get the Hatfield process, because they thought they had a better one of their own possibly. I think they were right.

The CHAIRMAN. Do you recall any delay in connection with the 14-inch shell?

Admiral McKEAN. I recall a conversation about a shortage of 14-inch shell, but what the action was, Senator—the detailed action—I do not recall. I remember in a general way that there was a shortage of 14-inch shell. The contractors were not producing shell that would pass the test, or there were other difficulties—I have forgotten what they were. But that is all; only in a general way. It is one of a thousand things that I can not possibly recall, there are so many details.

The CHAIRMAN. And you do not know anything about the cause of that delay?

Admiral McKEAN. I did not know what the result of it was. I did not know when the shortage had been made up, or whether it has been made up even now. I hope it has, and it probably has, but I do not know, Senator. The Bureau of Ordnance can tell you all about those things. I know that there was a shortage.

The CHAIRMAN. You do not know the cause of the shortage?

Admiral McKEAN. I do not; no, sir. I do not recall the circumstances at all.

The CHAIRMAN. Now, in the memorandum prepared by Capt. Laning, which you signed on the 18th of May, 1917, concerning repairs to the battleships, why had there been such delay in getting these forces in condition for service?

Admiral McKEAN. I do not recall the particular memorandum. There is a question of precedence at the yards, always. There was a question of the availability of the ships of the fleet for repairs. We never settled on a program of overhaul and repair of vessels of the fleet unless we had such conference as Admiral Grant described in his hearing, where the commander of that force, or the commander in chief in case of the dreadnoughts, and usually in case of the others, came to Washington, and with the information that I had as to the dates at the yards and the capacity of the yards, we arranged the schedule of when we could best send the ships to the yards, which ones should go first, which yards should take care of them, and how much time we would be able to put on each ship; and I do not remember that memorandum you refer to at all, but we were in correspondence with the fleet at all times. If I would see the memorandum I would probably recall it.

The CHAIRMAN. We will return to that. I will have that memorandum.

Admiral McKEAN. Yes, sir.

The CHAIRMAN. To what extent was the definite approval of the Secretary necessary in all matters connected with material which came before you?

Admiral McKEAN. Wherever the expenditure of the funds of the bureaus or the making of a contract or an order involves an approval, which meant money, the law requires the Secretary's approval. Operations had no authority to expend funds or to direct the bureaus to expend funds.

The CHAIRMAN. Do you know of any instances in which delays occurred on account of the procrastination of the Secretary of the Navy, similar to those concerning which testimony was given by Capt. Laning, Capt. Palmer, and Capt. Taussig, and Admiral Plunkett.

Admiral McKEAN. Oh, I probably felt, Senator, very often when I wanted a thing very badly and very quickly, that the Secretary was very slow in making a decision. I am not naturally patient, and when I was convinced I thought the other fellow ought to be. The Secretary is not rapid in decisions involving the expenditure of funds. He hesitates until you prove it and clinch it, and sometimes re-prove it and reclinch it. He consults everyone. And it was difficult in times of peace to get the Secretary to authorize large expenditures. He was always thinking about justifying himself before your committees up here, and until you could convince him of the military necessity absolutely and beyond question, and also that he could justify the expenditure before Congress, you would not get him to approve an expenditure of any large amount; and I often had to present the same subject many times before I got a favorable decision. I never had the Secretary refuse to listen to my arguments. I always tried to get a little new point of view on it and present it in a different light, and sometimes I thought I had proven the case beyond question a dozen times, and then I would try it in the thirteenth and I would get it.

The CHAIRMAN. What effect did these delays have on the preparation of the fleet and auxiliary craft for war service?

Admiral McKEAN. I do not believe that those delays, Senator—those delays in decision, or, as I said in my testimony, delays of my chief's, or my making up my mind, or the chief or the Secretary, or of the Congress in giving the appropriations—I do not believe they affected the war that much [witness snapping his fingers].

The CHAIRMAN. You do not believe that affected the preparation of the fleet?

Admiral McKEAN. No, sir.

The CHAIRMAN. And the auxiliary craft?

Admiral McKEAN. The part of the fleet that was of particular value during the war; no, sir.

The CHAIRMAN. And the auxiliary craft, I say?

Admiral McKEAN. I do not understand that, "the auxiliary." Do you mean the supply ships and that sort of thing? That is what we call auxiliaries.

The CHAIRMAN. The supply ships and everything except the battle fleet.

Admiral McKEAN. There might have been some units that would have been ready, Senator, if we had gotten decisions sooner or appropriations bigger; but I could not locate any definite case, and, as I said in my hearing, I do not believe that affected our war position in the slightest, because the war was a new proposition, and we had the transport, which was one big thing, brand new, and we had to get everything for the submarine warfare, brand new, and we had to

hustle to try to get everything needed for that. We might have been readier, but I do not think the Secretary or the department——

The CHAIRMAN. But you have just testified that sometimes you had to go to the Secretary twelve times before he would fall in with your suggestion.

Admiral McKEAN. Oh, yes, sir.

The CHAIRMAN. And on the thirteenth attempt he would fall in.

Admiral McKEAN. Well, I had not been able to convince him the first twelve times. I had not presented the argument right. I came up here for 18 months trying to get——

The CHAIRMAN. But even so, that was a delay in carrying out the plans you put up to him, for a considerable time.

Admiral McKEAN. Yes.

The CHAIRMAN. Is not haste of some value during war?

Admiral McKEAN. I said this was before the war, in time of peace. During the war it was very seldom the Secretary delayed. Sometimes he delayed in big things, but that was a matter of policy, expenditure of money; and I did not go to the Secretary twelve times during the war for anything. He did not have time and I did not have time for that. I usually made it so forcible about the second trip that he either approved or I knew that I could not get it; either he did not approve or I got it.

The CHAIRMAN. So far as Admiral Sims's recommendations were made, most of them were adopted after a certain amount of delay, were they not, whether the delay was necessary or not?

Admiral McKEAN. I believe that many of Admiral Sims's recommendations were adopted.

The CHAIRMAN. The ones that he refers to in his letter of January 7?

Admiral McKEAN. No; he mentions some recommendations in his letter of January 7, or did not make some, that he afterwards made. The Chief of Operations and the Secretary can tell you about that. I was not in on that policy.

The CHAIRMAN. I am talking about specific recommendations he did make in his letter of January 7; and I say in nearly every case those recommendations were followed out at a later period in the war?

Admiral McKEAN. The only real recommendations that I get out of Sims's letters and his telegrams were: "Send antisubmarine craft; send personnel; go into the convoy system." Those are the three things that Admiral Sims seems to me to have recommended.

The CHAIRMAN. Of course he also recommended sending the battleships?

Admiral McKEAN. In the letter of January 7—Oh, which letter are you referring to? Do you mean his first letter?

Senator TRAMMELL. The chairman is referring to his letter of complaint of January 7, 1920.

The CHAIRMAN. I am referring to his letter of January 7, 1920.

Admiral McKEAN. Oh, the letter that is the foundation of this hearing?

Senator TRAMMELL. Yes.

Admiral McKEAN. Oh. The letter of April 19, which is the first letter we got—here is a reference to the battleships in his letter, paragraph 27 in the letter of July 7:

In addition to submarines, heavy forces are free to raid and in fact escape through the channel at any time when the enemy decides that the necessity or return will justify the risk. Hence the suggestion that two divisions of our fast dreadnoughts might be based upon Brest primarily for the resulting moral effect.

That was a suggestion from the people he was in consultation with. That was not a recommendation of his, as I understand it, at all.

The CHAIRMAN. I think you will find in his letter that he speaks about that—in his letter of January 7, 1920. He refers to his having requested battleships.

Admiral McKEAN. I do not think that you can complain, or that he could complain, of that, not sending them over.

The CHAIRMAN. I simply referred to that as another thing. You said there were only three things referred to in his letters. I was citing that as another thing. Of course he did request tugs, also.

Admiral McKEAN. Yes.

The CHAIRMAN. And he requested certain plans about the mine barrage; and there were a number of different suggestions, most of which were followed out later on during the war.

Admiral McKEAN. Suggestions which are good at one time are not practicable at another, and they are not good suggestions at the other time.

The CHAIRMAN. But if these recommendations could have been followed out very shortly after they had been made, do you not think it would have been a good thing?

Admiral McKEAN. Most of them; yes; decidedly.

The CHAIRMAN. So that if there was delay, it was unfortunate?

Admiral McKEAN. In some of them. As to the battleships, I do not think it would have made any difference at all.

The CHAIRMAN. For instance, the delay in sending destroyers over. I am not saying that there was a delay, but I am saying that if there was, it was unfortunate.

Admiral McKEAN. The destroyers; yes.

The CHAIRMAN. And any antisubmarine craft?

Admiral McKEAN. Yes; if there was delay.

The CHAIRMAN. So that if the method followed by the Secretary did cause delay in these matters, it probably had a bad effect on that particular portion of the war, did it not?

Admiral McKEAN. I was there all the time, Senator.

The CHAIRMAN. Well, Admiral, I am asking you whether, if there was delay, it probably did not have a bad effect?

Admiral McKEAN. No.

The CHAIRMAN. You think it did not?

Admiral McKEAN. Neither the delays before the war had a bad effect during the war. I can not hitch them up, because before the war we would not have been working on the type of vessel that we wanted to use during the war.

The CHAIRMAN. That is, it would have been an advantage to send over these ships to Admiral Sims that he wanted, but it would not have been of much value to send them over at the earliest possible moment?

Admiral McKEAN. It would.

The CHAIRMAN. And if there was a delay caused by the procrastination of the Secretary, which caused the delay in sending them over—

Admiral McKEAN. Oh, now, you are putting the question differently.

The CHAIRMAN. Let me finish my question.

Admiral McKEAN. Yes, sir.

The CHAIRMAN. If there was a delay on the part of the Secretary, you state it would not have had a bad effect?

Admiral McKEAN. No, sir. If there was such a delay as to have affected the movement of those particular vessels.

The CHAIRMAN. Yes; that is what I say.

Admiral McKEAN. I did not get your question. If there was delay, most undoubtedly.

The CHAIRMAN. Do you believe that when the war started the battleships, destroyers, cruisers, and submarines were in a material condition to fight in the most efficient manner?

Admiral McKEAN. Certainly not all of them.

The CHAIRMAN. Can you explain briefly to the committee what was the reason for ships not being entirely ready as to material?

Admiral McKEAN. Money and men and the yards.

The CHAIRMAN. Prior to the war was it the policy of the department to keep all ships ready so far as material was concerned?

Admiral McKEAN. It was.

The CHAIRMAN. Were there always sufficient funds to keep the ships materially ready?

Admiral McKEAN. No, sir; we spent all we had and could not get it done.

The CHAIRMAN. In asking for funds to carry on work on ships prior to April 6, 1917, was it the policy of the Secretary of the Navy to always request from Congress the funds that the material bureaus recommended as necessary to carry on their work?

Admiral McKEAN. I do not know. I do not think the Secretary ever approved all the bureaus asked. I do not think Congress gave us always all that the Secretary asked.

The CHAIRMAN. Did you ever hear of any requests for appropriations being blue-penciled?

Admiral McKEAN. Oh, yes; every estimate is, by law, gone over, and the estimates of the bureaus are adjusted, cut out, revised, expanded. That is the duty of the Secretary.

The CHAIRMAN. But if the estimate of a chief of bureau were blue-penciled, what would you understand that that meant?

Admiral McKEAN. Well, if it was checked, that estimate for that particular object went out.

The CHAIRMAN. That is, if the Secretary did not approve of it?

Admiral McKEAN. Oh, yes; the Secretary and the Assistant Secretary reviewed estimates for appropriations, as was their duty under the law, before they were submitted to Congress. They were the Secretary's estimates.

The CHAIRMAN. Before the war, did you know of any estimate being blue-penciled so that that bureau found it impossible to provide all that was necessary for the fighting ships?

Admiral McKEAN. I do not know that the blue-penciling, Mr. Chairman, was the cause of it, but I do know that the bureaus did not have enough money, several of them, several times; they did not have enough money in the previous appropriations to carry us through the year at the pace we wanted to go in the way of preparing the fleet. They could not keep up.

The CHAIRMAN. You have referred several times to Congress cutting you down on appropriations. If the estimates were blue-penciled before they got to Congress, the responsibility would not be on Congress?

Admiral McKEAN. Oh, no, sir. I think it would split about 50-50, Senator.

The CHAIRMAN. Not in regard to blue-penciling.

Admiral McKEAN. Oh, no; the blue-penciling belongs to the Secretary and the Assistant Secretary.

The CHAIRMAN. As aid for material, did you ever find that the material condition of our ships could not be kept up to the highest point of efficiency on account of any delay on the part of the Secretary of the Navy in asking for appropriations?

Admiral McKEAN. I could not fix that. I would have to get a particular case and see if it was because they cut the Secretary's estimates, or whether the Secretary cut the estimates.

The CHAIRMAN. You can not answer that?

Admiral McKEAN. No, sir.

The CHAIRMAN. Did the Secretary of the Navy always ask Congress for all the money you knew would be necessary to keep our ships materially ready?

Admiral McKEAN. No, sir.

The CHAIRMAN. He did not?

Admiral McKEAN. No, sir. It was not my job to make recommendations, but I knew that the appropriations were too small, often.

The CHAIRMAN. Can you tell me when the battleships were sent to the navy yards to prepare for war?

Admiral McKEAN. I think I told you in my direct testimony that after the fleet came north—you mean the dreadnoughts?

The CHAIRMAN. Yes.

Admiral McKEAN. After the fleet came north, after they had had their annual drill, we arranged—Admiral Mayo and the department—to send them in turn, keeping as few as possible at the navy yards and keeping those there the shortest time possible, and we arranged a schedule by which we ran the whole of the dreadnought list through at the earliest date practicable. I have forgotten when we got through with them.

The CHAIRMAN. This was after the war?

Admiral McKEAN. Yes.

The CHAIRMAN. Do you remember making any recommendations that they be sent, before the war?

Admiral McKEAN. Yes; we recommended from the material point of view that they be sent a great deal earlier than they were. But that was not approved. But I think that probably our material ideas overcame our military judgment a little. My chief did not approve that, and the admiral, the commander in chief, did not approve of it.

The CHAIRMAN. Do you think that the Secretary of the Navy always presented the needs of the Navy Department in the way that would make the Navy efficient for war?

Admiral McKEAN. I do not know, sir. I have always congratulated him as the most successful Secretary of the Navy in working Congress that I ever knew. He got more than any other Secretary I have ever known.

The CHAIRMAN. More than he asked for?

Admiral McKEAN. Sometimes, on some things.

The CHAIRMAN. I say, more than he asked for?

Admiral McKEAN. More than he asked for; yes, sir. I think he was very successful with the committees.

The CHAIRMAN. In the first two or three months of the war was there any delay in providing essential craft to carry on the war because of the lack of funds?

Admiral McKEAN. The first two or three months of the war?

The CHAIRMAN. Yes.

Admiral McKEAN. I think the first emergency appropriation was \$115,000,000. That came in February or March. I think we used that up and overobligated it, but I do not think there was any essential delay in craft, getting those craft, except the authority, the distinct authority, which was required for purchasing and for commandeering. I think the commandeering law—I have forgotten the date it came through—helped us out materially.

The CHAIRMAN. I asked you whether it was on account of the lack of funds?

Admiral McKEAN. I do not think so; no, sir. I think with that \$115,000,000 we expanded with we went just as far as we wanted. I think we overexpanded it many times.

The CHAIRMAN. But you state that later on you had to get another one, late in October, and we could not do anything until we got it?

Admiral McKEAN. That was starting a new building program.

The CHAIRMAN. You said that we could not start such a program until we got it.

Admiral McKEAN. I do not think that the Secretary would have been justified in starting a new building program without the approval of Congress. I think that would have been rather stretching the discretion.

The CHAIRMAN. He could have started it at any time he saw fit, could he not, and asked Congress for its approval?

Admiral McKEAN. I do not remember how the appropriations—those different emergency appropriations—were worded. I do not recall, Senator. But I think on a big matter like 150 destroyers, costing millions apiece, it is going a good ways.

The CHAIRMAN. What, in your opinion, was the condition of the Navy with regard to personnel when the war started?

Admiral McKEAN. As I said, we were undoubtedly very short of officers and very short of men.

The CHAIRMAN. From your knowledge of the Navy and naval affairs, do you know whether or not the Secretary of the Navy made proper representations to Congress in the years just before the war to provide adequately for the necessities of the Navy in personnel?

Admiral McKEAN. I think that the Secretary of the Navy failed to make the recommendations. I think it was in the fall of 1915, when the General Board's report recommended 19,600 men, the Secretary did not recommend any, and that was because of the error of the advice which the Chief of the Bureau of Navigation gave him in using the peace complement. He said he had enough. I think that was an error, undoubtedly. I think we needed the 20,000 men at that time.

The CHAIRMAN. And they would have been very helpful at the outbreak of the war?

Admiral McKEAN. Yes. In the fall of 1916—Admiral Blue was still there at that time—their estimates were 8,000 to 10,000 in their annual report, and it had gotten up to 28,000 by the time the bill was passed, August 29, 1916. I think they were both mistaken in the number of personnel needed. I think that had those recommendations been made and had Congress given them to us, we would have had a great many more trained men when we went into the war, and they would have been very valuable.

The CHAIRMAN. So that the failure to make such a recommendation tended to keep the Navy from being ready for war when it was declared?

Admiral McKEAN. Yes; shortage of personnel is bound to have that effect. It takes time to train them; and we could not recruit all that were authorized when we got into the war, and we could train but very few of them.

The CHAIRMAN. As to material, did the Secretary of the Navy, in the years just before the war, make proper recommendations as to what was necessary to get ready for war?

Admiral McKEAN. Make proper recommendations?

The CHAIRMAN. To Congress?

Admiral McKEAN. To Congress? I think he did. They were proper, as far as they went. They did not go as far, and he did not make quite as big recommendations as I would have liked to have seen.

The CHAIRMAN. Ships are of no great use in the Navy without officers and men to man them?

Admiral McKEAN. No, sir.

The CHAIRMAN. Or without sufficient officers and men to man them?

Admiral McKEAN. They are not of their full value unless they are fully officered and manned by properly trained officers and men.

The CHAIRMAN. The following official statement appears in Admiral Fullam's testimony. It was in a letter from J. H. Dayton to Admiral Fullam.

There was also a letter from Admiral Blue, and another one from Admiral Palmer. I will read these letters:

NAVY DEPARTMENT, BUREAU OF NAVIGATION,
Washington, D. C., March 6, 1916.

DEAR ADMIRAL: Your letter of February 24 has been received. Rear Admiral Blue is on leave, therefore I am answering it.

I regret we can not give you the officers and men necessary to put your excellent scheme into effect. There are no officers of the rank of commander available, and the only way to get officers below the rank of commander would be to take them from the battleships of the Atlantic Fleet, which, of course, would not be practicable.

In regard to the men, we have got to provide crews for the *Nevada*, *Oklahoma*, *Pennsylvania*, *Wainwright*, 12 submarines within the next six months; and in addition to that the Naval Academy Practice Squadron will have to be filled up, so the situation is rather hopeless from our point of view. However, we will do the best we can.

With kind regards, I am

Very sincerely, yours,

J. H. DAYTON.

Admiral W. F. FULLAM, United States Navy,
U. S. Pacific Reserve Fleet, U. S. S. Milwaukee.
Care of postmaster, San Francisco.

Senator TRAMMELL. What is the date of that?

The CHAIRMAN. March 6, 1916.

The second letter is from Admiral Blue and reads as follows:

NAVY DEPARTMENT, BUREAU OF NAVIGATION,
Washington, D. C., July 5, 1916.

MY DEAR ADMIRAL: Replying to your letter of June 20, I regret that it is impracticable to send any additional officers to the reserve ships unless mobilization takes place and retired officers are ordered to duty and officers from shore are ordered to sea.

Sincerely, yours,

VICTOR BLUE.

Rear Admiral WILLIAM F. FULLAM, United States Navy.
Commander Reserve Force, Pacific Fleet.

Then there is the letter from Admiral Palmer, dated August 24. [Reading:]

NAVY DEPARTMENT, BUREAU OF NAVIGATION,
Washington, D. C., August 24.

To: Commander, Reserve Force, Pacific Fleet.

Subject: Completion of *West Virginia's* repair period; preparation of that ship for joining the reserve force in cruising exercises.

1. The bureau has, at present, the following commissioned officers on the ships of the Reserve Force: *Maryland*, 7; *New Orleans*, 1; *Pittsburgh*, 8; *Saratoga*, 1; *South Dakota*, 7; *West Virginia*, 4; total, 28.

2. This gives an average of about five per ship. This is the maximum that can be allowed until the department releases sufficient personnel by placing ships out of commission.

3. In the meantime recommendation is requested of the commander, Reserve Force, for nominations of officers from those ships of his command having more than five commissioned officers for their further transfer to the *West Virginia* and *Saratoga*.

4. There is no additional enlisted personnel available for fitting out the *West Virginia* and the *Saratoga*. It is requested that such men as are necessary be requested from the commander in chief, United States Pacific Fleet.

L. C. PALMER.

Then also here is an order from the Bureau of Navigation to the commander of the Reserve Force, via NPG. This reads as follows:

MARCH 25, 1917.

You are authorized to publish the fact that the President has signed an Executive order, calling for an emergency increase to 87,000 enlisted men. Give widest publicity. You are authorized to state number of men needed in your force and to enlist and retain on board men to fill vacancies.

Did not the first three letters clearly indicate great shortage of personnel and prove that the General Board was right and that Admiral Blue was wrong as to the personnel needed?

Admiral McKEAN. I think so, undoubtedly.

The CHAIRMAN. In view of this hopeless situation in the summer of 1916, whose duty was it to insist upon additional personnel, if there was any desire or any will to prepare the Navy for war?

Admiral McKEAN. Primarily, the Chief of the Bureau of Navigation; to the Secretary of the Navy, and the Secretary of the Navy to Congress; the personnel not coming under Operations.

The CHAIRMAN. An increase of 87,000 men was not made until March 25, 1917.

Admiral McKEAN. That authority of the President, of course, was given to the Secretary of the Navy.

The CHAIRMAN. That was only 13 days before the war?

Admiral McKEAN. Yes.

The CHAIRMAN. Of what avail were plans for getting armored cruisers and other vessels ready for war, and orders for maneuvers, drills, target practice, and so forth, if there were insufficient men to get the ships away from the docks and keep them going?

Admiral McKEAN. I have no guide for that other than the demands for the material for the reserve fleet, which I read into the record yesterday, and that is all that I had to do with it.

The CHAIRMAN. Still, you can tell me whether it was of any avail to order these things if there were insufficient men to get the ships away from the docks and keep them going.

Admiral McKEAN. No, sir; it is my idea that a part of the material deterioration of those ships in reserve was due to the lack of personnel. If they had had a reserve complement on them they would have been in better condition, better cared for, and the crews at the navy yards would have made repairs.

The CHAIRMAN. So that personnel was a vital question, and the real key to getting the Navy ready?

Admiral McKEAN. It was, indeed. It is the only thing that puts life into the inanimate material.

The CHAIRMAN. Was it possible to fully develop navy yards shortly before and during the war?

Admiral McKEAN. No. The development of the yards on the east coast, which we limited ourselves to during the war, was not completed by the end of the war. There are some of the yards that are not completed yet. If I understand the question, it is the time element. There are some of the things, like dry docks, etc., that take a long, long time, and they are the fundamental essentials, and it was not possible in the short time. It takes five years to build navy yards at the best speed you can make, with unlimited cash.

The CHAIRMAN. It was of paramount importance, was it not, to get the ships manned and gradually repaired during 1915 and 1916?

Admiral McKEAN. It was essential if we were preparing for war; and as I said before, I think the Navy is not of any use unless it is prepared for war.

The CHAIRMAN. If it had been the determination or the desire of the Secretary of the Navy to make the Navy ready after the sinking of the *Lusitania*, should he not have asked Congress for men and officers?

Admiral McKEAN. If it was his intention, you said?

The CHAIRMAN. To make the Navy ready?

Admiral McKEAN. Asking for officers at that time would have been better than getting them later. Asking for men at that time would have been better than getting them later. But as to "should," that implies duty. I do not want to pass on what the Secretary's moral duty was.

The CHAIRMAN. It was not the duty of Congress to initiate such legislation without any request from the Secretary?

Admiral McKEAN. No; it would not be of Congress, as I understand, until the policy of the country had changed.

The CHAIRMAN. You have just testified that you thought he should have followed the recommendations and asked for 19,600.

Admiral McKEAN. For a sufficient personnel to keep that fleet ready; yes, sir.

The CHAIRMAN. Yes.

Admiral McKEAN. But as to distinct preparation for war—

The CHAIRMAN. But I asked you, had it been the determination or the desire of the Secretary of the Navy to make the Navy ready

after the sinking of the *Lusitania*, should he not have asked Congress for men and officers? You have already testified that he did not.

Admiral McKEAN. I would not put in the sinking of the *Lusitania*. It was just as much his duty before to prepare for it as after.

The CHAIRMAN. At any rate, whether or not it was before, it was after?

Admiral McKEAN. Yes; at all times; to keep the Navy prepared for war.

The CHAIRMAN. So that it was his duty to have asked Congress for men and officers if he desired to keep up the Navy?

Admiral McKEAN. Yes; but the *Lusitania* was what got me. It was his duty all the time, from my point of view; because, as I say, the Navy should be prepared for war all the time.

The CHAIRMAN. Yes. Well, the *Lusitania's* sinking would not mean that we would not have to?

Admiral McKEAN. I would not decrease the desirability of the preparation, Mr. Chairman, no.

The CHAIRMAN. Did you not consider that war was probable after the sinking of the *Lusitania*?

Admiral McKEAN. Yes, sir; it was the *Maine* of this war.

The CHAIRMAN. What is that?

Admiral McKEAN. The *Lusitania* corresponded with the *Maine* in the Spanish war. I do not think you could stop it after that.

The CHAIRMAN. If all naval vessels had been gradually repaired and made ready as to material during the years 1915 and 1916, would not the navy yards have been comparatively free to undertake new construction?

Admiral McKEAN. We were doing all the work in the navy yards in 1915 and 1916 that they were capable of performing, with the number of men available. I kept the yards full all the time after July, 1915, up to their capacity.

The CHAIRMAN. That may be; but if we had had plenty of men——

Admiral McKEAN. If the appropriations had been larger and we had hired more navy-yard employees, we could have done more work, undoubtedly.

The CHAIRMAN. Would it not have made your task much easier, and would not congestion in the navy yards have been avoided, if the vessels of the Navy had been made systematically ready for war before war was actually upon us?

Admiral McKEAN. Decidedly so, and everybody else's.

The CHAIRMAN. Do you not think that after the sinking of the *Lusitania* the Nation was justified in preparing for war specially?

Admiral McKEAN. Personally, I do, yes. Under the strict interpretation of our position as neutrals and under the instructions of our commander in chief, no.

The CHAIRMAN. Where do you get that?

Admiral McKEAN. Neutral in thought.

The CHAIRMAN. That refers to the commander in chief?

Admiral McKEAN. To our commander in chief; yes, sir.

The CHAIRMAN. Aside from the commander in chief, you state that under the strict construction of neutrals, we would not be justified in doing that. Where do you get that?

Admiral McKEAN. Not having a very high regard for international law with no court to enforce it, I may not go quite as far as other

people. I would not have hesitated had I been responsible, because it might appear an unneutral act, or appear sufficiently so for any of the belligerents to protest. I think that at all times, under all conditions, under international law and everything else, the right of self-preservation of nations is like that of men. If you see the other fellow is quarrelsome, get your gun.

The CHAIRMAN. And you think that subsequent to the sinking of the *Lusitania* we should have at once prepared to the greatest extent we possibly could in the case that war came on us?

Admiral McKEAN. Well, had I been responsible for it, that is what I would have done, Senator. What other people should do, that is not my say.

The CHAIRMAN. And you think that certainly waiting until two weeks before the war began to increase the personnel was rather a tardy way of going about preparing the Navy?

Admiral McKEAN. I think that you have got to take—yes, I do—but you have got to take our people's attitude, and our fall elections of the year before, and a lot of national policies into consideration before you condemn individuals, Senator. There are a good many millions of people in our country, and they were not all ready to fight in the fall of 1916, and a good many of them were not ready to fight in the spring of 1917.

The CHAIRMAN. But most of them were ready to take steps to defend themselves, were they not?

Admiral McKEAN. Well, we had to take steps to defend the country against some of them, so those people were not very—

The CHAIRMAN. Yes, but that does not answer my question.

Admiral McKEAN. Yes, I think our people were ready to take steps for defense, and I think a good many of them were ready to fight, but I do not think all the public—

The CHAIRMAN. There were practically none of them that were not ready to take steps for defense?

Admiral McKEAN. I have forgotten the date of the election in the fall of 1916, but the votes did not show that they were very anxious for a scrap, then.

The CHAIRMAN. No; but at least they would be ready to protect themselves, would they not?

Admiral McKEAN. I could not draw the line.

The CHAIRMAN. Well, I take it that naval protection would mean safety?

Admiral McKEAN. I think so. It is the first line of defense.

The CHAIRMAN. Do you not think that the people of this country at that time were largely in favor of safety?

Admiral McKEAN. I think the people of our country had—oh, for years, since the Spanish-American War—been in favor of the Navy being built up so that it would be competent to do the job, at times.

The CHAIRMAN. Yes; but at this particular time?

Admiral McKEAN. Yes; all along. I do think that. I think that the majority of our people are in favor of it now.

The CHAIRMAN. And nobody wanted to take any chances? They might not want to go in for an aggressive war, but at least they were willing to appropriate money to keep themselves safe, were they not?

Admiral McKEAN. I do not know. It was not as easy to get appropriations in 1915 as it was in 1916, and it was not as easy in 1916 as it was in 1917.

The CHAIRMAN. Do you not think, Admiral, that if the Administration had given to the country the information that it had in its hands in the fall of 1916, it would have been a very easy matter to get appropriations from Congress to provide for the safety of this country?

Admiral McKEAN. You are getting me into the guessing field now, Senator. That is too big a problem for me to tackle.

The CHAIRMAN. You do not care to answer that question?

Admiral McKEAN. No, sir; I do not consider myself competent enough in national politics to answer that question.

The CHAIRMAN. In waiting until two weeks prior to the declaration of war before asking for men, and not beginning to systematically repair all ships, in anticipation of war, were not our navy yards overcrowded, and was there not great difficulty in manning naval vessels?

Admiral McKEAN. Yes, undoubtedly; but you say "systematically repairing ships." I claim that we were doing it, within our capacity.

The CHAIRMAN. Should not all available scouts and screening vessels have been ready for war in 1917, as a proper protection for and necessary adjunct to our fleet?

Admiral McKEAN. They could not have been ready at all times. There was no special reason for that special class being given preference over other classes at that time.

The CHAIRMAN. Capt. Pratt and Admiral Badger have both declared that our fleet would have been endangered in battle with a hostile fleet in April, 1917, for lack of scouts and cruisers.

Admirals Strauss, Rodman, Wilson, and Fletcher have certified that our fleet could have successfully met the German fleet without cruisers and with only a thin screen of destroyers. With which group of officers do you agree?

Admiral McKEAN. With a hypothetical question and essential conditions which you have got to represent on the game board, the personnel question, and conditions equal between the two sides, then playing it out on the game board, giving proper values to the units, theoretically the answer to the question—which is a hypothetical question—would be that the German fleet was the stronger fleet than was ours; and any fleet without scouts, without screening and protecting vessels, is seriously handicapped.

But you put those two fleets on the game board and play it out according to the rules, which is the nearest approach to practice that we can get without the actual scrap, I would put my money on the black.

But when it comes to asking us to say, Senator, that our fleet as it came north, if it had met the German fleet east of our own coast, half way across the ocean, or over there, that is again hypothetical, and it is awfully painful for an officer to say that he thinks that the Huns could have licked us, under any conditions. But make it theoretical and put it on the game board and count it theoretically on your hypothetical question, and I follow Capt. Pratt entirely. We are in full agreement.

The CHAIRMAN. Would it be painful for you to say that a light cruiser could not meet a dreadnaught with any hope of success?

Admiral McKEAN. No; but there are light cruisers that under certain conditions, with certain personnel, doing the David and Goliath stunt, you know—things like that have happened. But you do not theoretically allow for them.

The CHAIRMAN. But you would not advocate it in war?

Admiral McKEAN. I would not advocate it, but I would expect one of our youngsters, if he was right up against it, that he would do it.

The CHAIRMAN. But you would not advocate sending out two dreadnaughts against ten dreadnaughts of equal size, would you?

Admiral McKEAN. I would not advocate it, but if they were sent, it would be very painful—

The CHAIRMAN. Of course they would do it and would put up the best fight they could.

Admiral McKEAN. Yes, and the other fellows would know that they had been there.

The CHAIRMAN. Yes, but as a practical proposition it is not sound?

Admiral McKEAN. Theoretically, it is not good doctrine.

The CHAIRMAN. Then you would say that our battle fleet as it existed in April, 1917, consisting of battleships and a few destroyers, could not have successfully met the German fleet as it met the British fleet at the battle of Jutland?

Admiral McKEAN. Where?

The CHAIRMAN. In midocean.

Admiral McKEAN. According to all the values given to the units, no; but the German fleet would not have hurt anybody else much after our fleet got through with it.

The CHAIRMAN. That might have been. Has there ever been any plan to inspect and prepare to commandeer yachts and merchant vessels for war purposes, to decide on their batteries, provide guns for each ship, and fix the quota of officers and men so that such vessels could be quickly made ready to reenforce the Navy?

Admiral McKEAN. Yes; the Board of Inspection and Survey has a section devoted to the inspection of merchant ships, and they have in the districts a list of ships, and the Joint Board of the Army and Navy have picked out the ships as to the duties they are best fitted for, and would be most available for in war, which service is going to get them, and so on, and in the General Board's plan, the taking over of certain of those merchant ships for those purposes is included. The details, the complete working out, of where they should be altered, at what yards, and what material, and so forth, would be necessary, has never been worked out to my knowledge.

The CHAIRMAN. We did not have such a plan prior to the outbreak of the war?

Admiral McKEAN. We had the foundation of such a plan.

The CHAIRMAN. But we never had the details?

Admiral McKEAN. We never had the details worked out, I do not think.

The CHAIRMAN. Germany did, did she not?

Admiral McKEAN. I imagine she had, because she owned or had governmental control over all the merchant craft. She did not have to have commandeering orders. She took them.

The CHAIRMAN. Did England have any such plans prior to the war, do you know?

Admiral McKEAN. I do not know. Judging from other plans, no.

The CHAIRMAN. Would it not have been a wise provision between 1914 and 1917 for us to have had some such plan?

Admiral McKEAN. My recollection, Mr. Chairman, is that we were working on such plans with the officers who were available, inspecting

these merchant ships as they came into port, determining their qualifications, and keeping our list as completely up to date as we could with the personnel we had.

The CHAIRMAN. But if we had had such a plan carefully worked out and if our navy yards had been freed of regular naval vessels, the latter having been previously made ready, could not all these yachts and merchant vessels have been expeditiously altered, armed, manned, and made ready, and could they not have gone overseas much sooner than they did?

Admiral McKEAN. Yes; it might have speeded some of them up. But, once again, you would have been up against the real crucial situation, man power and material. We could not get the men. We could not get material. When we got the material, we did not have the men to work it up right. They were not skilled. They were farmers driving rivets.

The CHAIRMAN. Do you believe in waging war offensively or defensively?

Admiral McKEAN. Offensively, always.

The CHAIRMAN. Would not this especially be the case when the enemy's move is blockaded, with the exception of submarines—blockaded on the water?

Admiral McKEAN. Yes; then or any other time. At all times.

The CHAIRMAN. Then why should the United States have kept many vessels out of the war zone, especially as warning was always given when submarines were coming, and we were told that such warning would be given?

Admiral McKEAN. I do not think that the United States kept the ships out of the war zone with the idea of taking the offensive. I think they were preparing the defensive to launch the offensive, and I think we sent those vessels over there, as I said in my statement, almost as soon, and certainly in better condition, by having organized them first into a patrol force, and then the units drifting to the yards, and going over in groups; I believe that they arrived in Europe ready for business just as soon as if the whole patrol force had been brought out and sent to the yards and swamped us, and said "Get them ready." I do not think we would have gotten them over a bit sooner.

The CHAIRMAN. Do you not think it would have had a great moral effect if we had sent our Navy over immediately after the declaration of war, not a part of the Navy, but the battleships, the whole of it?

Admiral McKEAN. We could not maintain it over there. They did not want our oil-burners over there. We could not get the oil across. That was one of the hardest jobs. When the armistice was signed we owed the British Government 70,000 tons of fuel oil. We could not send it. The oil for the destroyers ran up an awful bill; and then every destroyer that we sent over there meant more tankers. That is why part of this force was kept guarding the oil lines. If the German submarine had been a wise submarine and had busted up the oil route—

The CHAIRMAN. If we could have sent them over, do you not think it would have had a good moral effect?

Admiral McKEAN. Undoubtedly; it would have cheered the other fellow up. But the moral effect—

The CHAIRMAN. No, I mean the moral effect on the Germans?

Admiral McKEAN. I do not know, sir. We kind of hoped that it would have an immoral effect on the Germans, and bust their morale.

I do not think it would have affected the Germans so much, earlier. I think our effect on the German morale ultimately, our antisubmarine methods, did do a good deal to help out, a good deal more than the per cent that our forces were of the total forces.

The CHAIRMAN. It is a matter of record that the commander of the reserve forces in the Pacific on February 23, 1916, more than one year before we declared war, called the attention of the department to the absolute necessity for officers, warrant officers, petty officers, and men, and declared, "If the Navy Department does nothing in this line all plans and schemes to improve the efficiency of reserve ships—not to say other ships—will simply remain on paper."

Should not such a letter have received favorable consideration by the Secretary if he really expected or wished to get ships ready for war?

Admiral McKEAN. I do not know that it did not receive favorable consideration. That was about the time, February, 1916, that was the time that the Secretary was getting along in the increased number that he recommended to Congress, when he was getting up to the 28,000. I think probably that helped us in getting them. If he got the 28,000 on August 29, 1916, and that 28,000 was the result of the cumulative efforts of Admiral Fullam and all the rest of the people who were short-handed.

The CHAIRMAN. So that you think it should have received favorable consideration?

Admiral McKEAN. I have no doubt that it should have received favorable consideration. The officers were not available and the men were not available.

The CHAIRMAN. Now, in regard to the recommendations in 1914, whose recommendation do you think the Secretary should have approved, that of the General Board or that of Admiral Blue, in regard to the shortage of personnel?

Admiral McKEAN. Personally, I would have taken the General Board's.

The CHAIRMAN. And you think that the Secretary should have taken the General Board's?

Admiral McKEAN. Well, had I been asked to advise him on that subject, I would have advised him to take the General Board's, because I thought Blue was decidedly wrong, and I thought I knew where he was wrong.

The CHAIRMAN. I gathered from your testimony that you would not say that the fleet as a whole was ready for war in material and personnel in April, 1917?

Admiral McKEAN. No, sir; it was not ready for war as to personnel or material; that is, 100 per cent ready, or anything like 100 per cent.

The CHAIRMAN. Capt. Pratt stated that the Navy Department was not properly organized for war, and had to be reorganized. Now, what is your opinion? Could it not have been better organized between 1915 and 1917 had we anticipated and prepared for war?

Admiral McKEAN. Yes. I always had very distinct views on the defects of the organization, and I think that Capt. Pratt referred not only to the necessity of reorganization, but that involves a large expansion that took place as well as some modifications in the

organization. War brought some of the modifications that in peace would require laws. That is going back again to the remark about a gentlemen's agreement. A gentlemen's agreement in peace might do. In war it is the essential duty of all of the country to control all the little jealousies and friction. They just dropped out, and we got busy. Never mind bureau business or anything else. I think the organization ought to be changed. I think if we had had an aid for personnel with the same duties as the aid for personnel under the chief of operations, that I had as assistant for material, while he might have made the same mistakes as to personnel that I made in reference to material, they would not have been as many and as serious as when it was a separate and detached Bureau of Navigation; and this investigation here would have involved nobody except the Chief of Operations, under the letter, the Chief of Operations and his two assistants, and personnel, and his assistant chief of staff, the assistant to the Chief of Operations. We four would have been the only ones. I do not think that the Secretary would have appeared in the discussion.

The CHAIRMAN. Have you any questions to ask, Senator Keyes? Senator KEYES. Not now.

Senator TRAMMELL. In regard to the question of plans, Admiral, you had made sufficient plans to carry on the operations in your particular division, had you?

Admiral McKEAN. We had all the plans that in my opinion were necessary for our efficiently doing my job; all I ever asked for; all I thought I needed. I might have suggested to clear up for other people, but I knew what I was expected to do.

Senator TRAMMELL. The question of whether or not they were put through a course of red tape, and so on, in the way of printing and being in the nature of a formidable document, did not make any particular difference, did it?

Admiral McKEAN. No, sir; I did not care a cent. A pencil memorandum was just as good as a copper plate.

Senator TRAMMELL. As a matter of fact, is it the system or is it necessary or wise to take those plans and print them and circulate them into other divisions and elsewhere, where they have nothing to do with them?

Admiral McKEAN. No, sir.

Senator TRAMMELL. As a matter of fact, would not that increase the opportunity for the enemy to find out what you were doing?

Admiral McKEAN. Undoubtedly, any leak——

Senator TRAMMELL. And the fact that these were not given general circulation in the divisions and apartments, and with many officers that had nothing to do with them, probably was actuated to an extent not only in the way of expedition, but was actuated from a further disposition to lessen that opportunity?

Admiral McKEAN. Undoubtedly; and we often did not put them in the hands of typewriters, did not take them to stenographers, or did not print them, because we did not want anybody to know what was doing. We kept our plans in our heads, and when we discussed them, we tore up the paper and burned the notes.

It seems to me that there is a good deal of misunderstanding about the necessity for detailed plans. I think the accent on the plan business is placed too strong. I did not miss the plans so much during the war.

Senator TRAMMELL. I believe you stated in your opening testimony that if you were to map out an offensive plan for a definite, stated objective, or campaign of war, then, of course, you would have to go into all your details, but if you were occupying more of a position of defensive, you would have to be actuated and controlled more by the conditions as they arose from time to time in the theater of war?

Admiral McKEAN. Yes; if you are on the defensive, the other fellow controls the plans. As long as he can keep you on the defensive, and he has the initiative, you have to adapt your plans as he shifts his. He is doing the plan making.

Senator TRAMMELL. If there had been a general plan for an offensive for an engagement with the German fleet, as far as this particular war was concerned, you would not have needed it, would you?

Admiral McKEAN. Oh, I would not have needed it at all, no; a plan for an engagement. You would not go that far. You plan what fleet you are going to meet the German fleet with and the where and the when and the how they are going to meet them, that is in the hands of other people.

Senator TRAMMELL. You have to leave that to the commander in chief of the fleet?

Admiral McKEAN. Yes, sir.

Senator TRAMMELL. It is equally true that you would have to leave to the different departmental heads, the bureau heads, the matter of the details of the preparation of the material or whatever may come under that particular division, too, is it not?

Admiral McKEAN. Yes; and what the plan calls for and requires how they got it, and how it would be supplied, etc., was entirely a bureau matter, with which we did not interfere in the slightest.

Senator TRAMMELL. You were asked the question, whether there was any specific instruction that the fleet should be prepared for service in foreign waters, and you stated that there was not; but as a matter of fact, when war was more imminent with Germany than any other nation, of course, would not your general plan for preparation for war or improving your Navy embrace that without being told that you had to do that?

Admiral McKEAN. I think that we were all successful——

Senator TRAMMELL. I mean your general idea and conception of preparation would embrace that feature?

Admiral McKEAN. Undoubtedly every one of us, when he was working out any situation, was thinking about Germany.

Senator TRAMMELL. You had no specific instructions to prepare for entirely coast defense, either, had you?

Admiral McKEAN. No.

Senator TRAMMELL. But, as a matter of fact, that was a part of the general scope of the preparation?

Admiral McKEAN. Yes; one of the first steps.

Senator TRAMMELL. You would not consider it any particular oversight or neglect in the way of mapping out a general policy, then, that you were not specifically instructed to prepare for service in foreign waters?

Admiral McKEAN. I got all the instructions, Senator, that I needed for my job.

Senator TRAMMELL. On the question of the preparation of docks and yards, and so on, I believe you stated that the plans were made

up for Hampton Roads and some other projects, and approved by the Secretary of the Navy, some 18 months before you obtained the appropriations?

Admiral McKEAN. My recollection is that it was 18 months for the operating base at Hampton Roads, before I got the money, after the Secretary had approved it; and it was a year after I got the Secretary's approval before I got the appropriation for Coco Solo, the submarine and aviation bases, for the protection of the canal.

Senator TRAMMELL. You were questioned in regard to whether or not the Secretary informed the committee that this was absolutely essential for war, and of course, you stated that you did not know the verbiage of his recommendations, or the particular language that he employed to advocate his approval; but you did state that he approved it, and that he urged the committee, as I understand, to make these appropriations for these particular needed improvements, did you not?

Admiral McKEAN. Yes; and I just recall another case. I understand from the newspapers that there was a half a million put in for the completion of the submarine base at New London, Conn. This was on the carpet for some time, but they put it in yesterday, I believe.

Senator TRAMMELL. That has been recommended, some time ago.

Admiral McKEAN. Oh, yes, we needed that some time ago. I think the Secretary approved that from the beginning.

The CHAIRMAN. What bill is that in, the naval appropriation bill?

Admiral McKEAN. I understood from the newspaper—I read it this morning, I think—that there was an item for New London that had gone in. Somebody amended it, or something.

Senator TRAMMELL. It was amended by Senator Brandegee—\$50,000.

Admiral McKEAN. \$50,000?

Senator TRAMMELL. \$50,000.

Admiral McKEAN. No—

The CHAIRMAN. That was several days ago.

Admiral McKEAN. I am sorry. I thought it was \$500,000.

Senator TRAMMELL. I believe you stated in your direct testimony that until we entered the war the representatives of the department had sought information from the Allies; had tried to get as much information as they could; but the efforts were rather futile, did you not?

Admiral McKEAN. I have understood that, and the officers who were sent over, especially, got very little, and some of them got in the spirit that it was no use, and they came back. I do not blame them. They would not give it to us. They did not know what we were going to do. They were paying bitterly for their experience. Why give it to us for nothing?

Senator TRAMMELL. There were new developments, you might say, quite frequently, along, in the submarine menace, and our department was making an effort to get such information as it could, and really assist us in better equipping us for taking our part and our place later on if we should become involved?

Admiral McKEAN. Oh, yes; we ordered the submarine chasers, some of them, before the war commenced, and we had the plans approved, and we knew about where the contracts would go. We

had gotten that much ready for the submarine war, particularly. And out of the first emergency appropriation we got some of the moneys to speed up on the destroyers already under contract.

Senator TRAMMELL. If there was delay in getting ready for more effective service in opposition to the submarine menace, and anybody is to be blamed for that, the Allies might as well be blamed for not opening up and letting us know a little more, might they not, as to what could be done, and the preparation?

Admiral McKEAN. You see, Senator, I do not admit that there is any blame at all.

Senator TRAMMELL. I say if there was any?

Admiral McKEAN. If there was, it is equally fair to unload on them as it is on us.

Senator TRAMMELL. Do you know whether the department was asking for appropriations for more destroyers than Congress had appropriated for prior to 1916?

Admiral McKEAN. I think there were times, running well back, when Congress cut down our destroyer program. As I recall it, the General Board early adopted the ratio of 4 to 1—4 destroyers to every battleship—and I do not think we ever got up to that standard; and the General Board recommended from time to time, and the department recommended; but I do not think that Congress gave us authority as fast as we asked for them. I could not be sure of that. That would have to be checked up.

Senator TRAMMELL. I thought maybe you would remember. There was a table filed here which it is my recollection showed that the department and the secretary asked for more destroyers and other ships in 1914 and 1915 than Congress allowed.

Admiral McKEAN. That is my recollection of it, Senator, and that table will show exactly.

Senator TRAMMELL. In regard to the question of tugs, you began that in October, 1917; and from your statement I judge that there was not an appropriation available for that, unless the Secretary strained, if he did not even go beyond, his authority, to enter upon a program of tug building. Do you know when it was first taken up with Congress—the matter of getting authority for the tug program? I do not mean when it was acted on by Congress.

Admiral McKEAN. No; I do not, Senator. There was another type, you know. These were called seagoing tugs, which could not have been used for anything else. We got the mine sweepers first, which were of the tug type. They were authorized March 4, 1917. An order was given May 31. They were really seagoing tugs, but fitted for special purposes.

Then there was another lot authorized October 6, 1917. They were contracted for December 29. And just there, the authorizing by Congress did not mean that we could immediately make the contract. We had to do a good deal of bulldozing, sometimes, before we could get the shipbuilders to take the contracts. They had some chances at things that would pay a little bit better than some of our naval work, and you had to apportion it pretty fairly, and then say, "You will, or we will commandeer your yard." That was done numerous times. They were not rushing after naval contracts when they could get other contracts that paid better money.

Senator TRAMMELL. The demand for all kinds of equipment was so acute that you could not go out and find a contractor who was anxious to get a contract?

Admiral McKEAN. You had to sometimes build a yard.

Senator TRAMMELL. As a matter of fact, did not different branches of the Government—I am not sure as to the Navy Department—in order to encourage companies to take up construction of these different necessary equipments, have to advance money to them?

Admiral McKEAN. We financed numbers of companies, both to fit the plants for meeting our demands and in some places we financed new companies. I know one to which, if my recollection is correct, we gave \$9,000,000 of Government capital before we were through with it; they were using \$9,000,000 of Government capital.

Senator TRAMMELL. The department, after considering Admiral Sims's recommendations on different matters, with a broad view of the entire situation, if it approved of his recommendations, acted on them just as quickly as the facilities that were available permitted, did it not?

Admiral McKEAN. In all cases, so far as I know, after the decision was made and approved, they furnished the stuff as rapidly as the facilities of the country would permit, and our capacity. I do not know of any case in which that is not correct, so far as material was concerned. I do not know a single thing. I had special orders, for instance, in material, operations, to follow up and check every item of every dispatch that came from the other side; and every item, no matter which bureau was concerned, was followed until the material was on the ship, and then we closed that drive. It was a follow-up business that built up because some shipments had not gotten through. We followed the shipment from the day we got the order, even in material, until it was on the ship, routed to where Admiral Sims wanted it. That is only one illustration of what we were trying to do.

Senator TRAMMELL. As far as your knowledge goes, recommendations and requests that came from Admiral Sims were placed in the hands of the proper naval officer here for consideration with reasonable promptness, were they not?

Admiral McKEAN. In my opinion, I have always understood so. As Capt. Pratt explained, at first we had some difficulties about decoding, and so on; but I think we all got Sims's telegrams, and my recollection is that they were passed over the desks of the heads of divisions, and each of us initialed them; and we had a list, and we inserted them; and we gave them to those subordinates that we wanted that information to go to, and checked it to them, or extracted and checked to them, and I think that the information and requests of Admiral Sims, according to my recollection, were distributed, and to the people who should act on them as rapidly as practicable.

The CHAIRMAN. After they had been approved?

Admiral McKEAN. Sir?

The CHAIRMAN. After they had been approved?

Admiral McKEAN. Well, I think that they were information first, Senator, before the question of the approval. They would be for information. Then we would have a conference and discussion, and we would say "What are we going to do about Admiral Sims's request," and so forth. Then you would get an action order—

executive. They would say "Send so and so;" or "No, we will not do so and so"; or "Do so and so; and do this so and so." Now, I think as information—either requests or definitely information—it was circulated to all the people concerned, very promptly. That was the first thing most of us did in the morning. We would get up to date on the facts.

Senator TRAMMELL. And your bureau, you had to, or you did, at least, take into consideration the entire situation and all, in passing upon matters, and you could not restrict your decision to the needs on the other side only?

Admiral McKEAN. We had to take into consideration not only Admiral Sims's recommendations, but conditions over there. We had to take into consideration the conditions here at home. We had to take into consideration the conditions or needs of the War Department, the policies of the State Department, the condition of the material market, whether we could get this thing or whether we would have to substitute that, and all of those things, before we could decide that it was possible for us to comply with Sims's requests. But if it was necessary, then we bent every effort of everybody in the department to get that thing, and the material bureaus evidently were satisfactory, as I understand Admiral Sims has sent a complimentary letter to each chief of bureau; and I know that they were making every effort, and his stuff had the right of way, practically, with all of us.

Senator TRAMMELL. This letter of April 19, 1917, which was the first letter received from Admiral Sims after he went to London, in making reference to battleships, does not recommend or request that they be sent there, does it?

Admiral McKEAN. Not one.

Senator TRAMMELL. It does not do that?

Admiral McKEAN. No; it is apparently, the way I read it, a suggestion that it would be desirable to have battleships. That came from other parties. Some one had suggested that, and that he merely passed on what he said about it.

The CHAIRMAN. No one has suggested that it was in the letter of April 19.

Admiral McKEAN. Sir?

The CHAIRMAN. No one has suggested, I say, that that was in the letter of April 19.

Admiral McKEAN. No; but the letter of April 19 was the one which he laid down what he wished.

The CHAIRMAN. He kept asking for things after that.

Senator TRAMMELL. What letter was it supposed to be in?

Admiral McKEAN. It was suggested by somebody else.

The CHAIRMAN. In his cable of April 14, he said:

At present our battleships can serve no useful purpose in this area except that two divisions of dreadnaughts might be based on Brest for moral effect against anticipated raids by heavy enemy ships in the channel out of reach of British main fleet.

Admiral McKEAN. Yes, and he then refers to that as a suggestion. I have got it straight now. The language is "might be based on Brest for moral effect." He does not even recommend or request.

Senator TRAMMELL. He did not recommend it or request it, but merely stated that it might be worthy of consideration, at least; but he did not recommend it or request it.

The CHAIRMAN. He recommended it later on, very shortly afterwards.

Senator TRAMMELL. He might have recommended it later on.

Admiral McKEAN. I think he did recommend that some battle-ships be sent over later on. They were sent some time after his recommendation.

The CHAIRMAN. He recommended it in July, 1917, and he got them, I think, in December.

Admiral McKEAN. Late in the fall.

The CHAIRMAN. Is there anything more?

Senator TRAMMELL. I do not think I have anything more.

The CHAIRMAN. I referred in my questions a short time ago to certain memoranda and a letter submitted by Capt. Laning. I have the memoranda and letter here, if you will look at them.

Admiral McKEAN [after examining papers]. I have seen that. Now, the question of contracts, it was my recollection that there was some hitch with the contractors; but the details of those I know nothing about.

The CHAIRMAN. You simply handed it to him?

Admiral McKEAN. Brought it to the Admiral's attention. I read that memorandum, etc., and brought it to his attention, and I probably made recommendations, and so forth, as to its urgency, and asked him to prepare—that that ought to be looked up or followed up.

The CHAIRMAN. We will let this memorandum be put in the record at this point.

The memorandum referred to is as follows:

In reply address the Secretary of the Navy and refer to No. —.

NAVY DEPARTMENT,
Washington, April 12, 1917.

(Confidential.)

Memorandum. For the Secretary of the Navy.

1. I have to invite your attention to conditions so alarming to the safety of the country that in my opinion immediate steps must be taken to avert them. These conditions are reported by the Bureau of Ordnance's quarterly report "Preparedness for War." These serious conditions are summarized as follows:

(1) Shortage of shells, 14-inch caliber.

(2) Nonaward of contracts for 1,296 torpedoes required by the 1917 building program.

2. As the Navy stands to-day we have the following allowance of 14-inch shell on the battleships in commission having that caliber guns. These are the (1) *Arizona*, (2) *Nevada*, (3) *New York*, (4) *Oklahoma*, (5) *Pennsylvania*, and (6) *Texas*. Should these ships be called into battle and expend their ordinary supply of shells—which is only sufficient for a short battle—we have not on hand to-day sufficient reserve 14-inch shell to refill their magazines. The total reserve supply of 14-inch shells for refill is but 1,961, an average of less than 31 shells per gun. Furthermore, if this small reserve is used for refills there would be no shells at all available for the *Idaho*, *Mississippi*, and *New Mexico*, now well along to completion. I can not bring too strongly to your attention that without shells for the guns, battleships, and all they contain, are worthless. They not only can not defend themselves but can not even fight to save the country. To be without sufficient shells for our largest and best battleships exposes not only the Navy but the whole country to disaster. I most earnestly urge that the Chief of the Bureau of Ordnance be given authority and orders to provide sufficient 14-inch shells at the earliest possible time to fill out the allowance for the ships built and building and to complete the reserve stores essential for those ships.

3. While the situation as to 14-inch shell is dangerous, that with reference to torpedoes is none the less so. Our new submarines, Nos. 78 to 107, and destroyers, Nos. 75 to 94, are all being speeded to completion and will undoubtedly be required for service as soon as ready. Neither can be used unless they are equipped with the torpedoes they were built to use. Unless the contracts for their torpedoes are entered into at once the ships will be ready before their torpedoes are.

The price for the 1,296 torpedoes involved, which has been the cause of the delay in executing the contracts, has been adjusted and the contracts have been signed by by the E. W. Bliss Co. The price having now been satisfactorily arranged, it only remains to sign these contracts to start the work. It is earnestly recommended that the contracts be signed at once and the Bureau of Ordnance directed to have the work pushed to completion.

The CHAIRMAN. You have no recollection of that matter at all?

Admiral McKEAN. No, sir. I know there was such a case, but I do not recall what I did or what happened.

The CHAIRMAN. There is also a letter in regard to repairs to the fleet, signed by you, on the 18th of May, 1917. This is on page 976 of the record.

Admiral McKEAN (after examining paper). Yes; that is my memorandum.

The CHAIRMAN. Saying that there were a great many repairs that were necessary for the fleet at that time.

Admiral McKEAN. There were a good many of these longer repair shifts, 50 days, etc., that were alterations rather than repairs.

The CHAIRMAN. The memorandum shows in each case?

Admiral McKEAN. Yes, sir; it shows each one. Here are the details [indicating].

The CHAIRMAN. Can you now answer my question as to whether there was a delay in getting these forces in condition for service?

Admiral McKEAN. Evidently the delay was due to the fact that the commander in chief and the Chief of Naval Operations did not agree with my plans, and as to the urgency thereof. This would not go to the Secretary. This was decided by Admiral Benson, and the commander in chief, after consultation, and would be followed up by another statement which was put in effect later.

The CHAIRMAN. Yes, but it does indicate that the fleet was not in very good shape as to material, does it not?

Admiral McKEAN. Yes, but it was better than reading "40 days" or "50 days" would look. It does not mean that they were not in such condition that they could go abroad and go into a fight, and all that sort of thing. Here is the idea, to bring them up to the nearest to 100 per cent of efficiency they could. This is what we would have liked to have done.

The CHAIRMAN. It will not be necessary to put that in. A reference to the page of Capt. Laning's testimony will be sufficient.

Admiral McKEAN. It was not as bad as it would look from the number of days stated there. For instance, the *Wyoming* left the Bremerton Navy Yard the other day. She has not, I think, arrived at San Pedro, but when I get back there Capt. Evans will have things he would like to have done.

The CHAIRMAN. I think that is all Admiral, and you may be excused.

Admiral McKEAN. Thank you, sir.

(Thereupon, at 1.40 o'clock p. m., the subcommittee adjourned until Tuesday, May 4, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

TUESDAY, MAY 4, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

TESTIMONY OF ADMIRAL W. S. BENSON, UNITED STATES NAVY, RETIRED.

(The witness was sworn by the chairman.)

The CHAIRMAN. Admiral, have you any statement to make in connection with this investigation?

Admiral BENSON. I have not, Mr. Chairman; I have not prepared a statement. I felt that my aides had covered all of the details with reference to the office of Operations, and the questions of policy, and so forth, that actuated what was done by the office of Operations. I am prepared to answer any questions in regard to that. I have intentionally avoided preparing a studied statement. I have attempted to keep my mind as free as possible from any of the influences that might have been produced by hindsight, or a study of the problems involved after they had been solved, knowing from the nature of the investigation and feeling that that was what was wanted, I tried to keep my mind unprejudiced by any subsequent study of the problems; and my memory is quite clear in regard to the main principles.

The details I have left to my subordinates to present to the committee, which I understood would be the plan followed.

I feel that I should make this statement, that as the naval advisor to the Secretary of the Navy, I was responsible for the naval operations of the war.

The CHAIRMAN. Will you state to the committee, Admiral, what your duties were from the time of the commencement of the World War up to the present time?

Admiral BENSON. I assumed the office of Chief of Naval Operations on the 11th of May, 1915, and held that office until my retirement on the 25th of September, 1919.

My duties were, of course, as I say, as the chief or principal naval advisor to the Secretary of the Navy, in all matters with reference to the preparation of the fleet, the organization of the fleet, and preparation of the fleet, for the purpose for which it is intended, for war, and those duties I performed during that time.

In 1917, for two months, nearly, from the latter part of October until the middle of December, I was abroad with a special mission that was sent abroad; and again, in 1918, from the middle of October until the 20th of the following June, I was abroad with a mission; and later on, as naval advisor to the Peace Conference in Paris.

I returned to the United States on the 30th of June, 1919, and resumed my duties in Washington; though while in Paris, I still, as far as possible, performed the duties of Chief of Naval Operations.

The CHAIRMAN. Before you became Chief of Operations what was your position?

Admiral BENSON. I was commandant of the Philadelphia Navy Yard.

To go back a little further, I put the *Utah* in commission in 1911, and commanded her until 1913, when I went to the Philadelphia yard as commandant, and remained there until I came to Washington on the 11th of May, 1915.

The CHAIRMAN. When were you promoted to the grade of rear admiral?

Admiral BENSON. When I was made Chief of Naval Operations. That carried with it the rank of rear admiral; and when I was regularly promoted I really could not say, Senator. I have forgotten, sir.

The CHAIRMAN. You were not rear admiral, you say, when you were made Chief of Naval Operations?

Admiral BENSON. My regular rank was captain; but the office carried with it the rank, while so acting, of rear admiral, and then the bill that passed in 1916, I think it was, raised the rank to full admiral, ranking after the Admiral of the Navy; and when my regular promotion came from captain to rear admiral, I really could not say.

The CHAIRMAN. Were you flag officer at any time?

Admiral BENSON. I was acting flag officer during the time I was in command of the *Utah* for a while. I took the first division south in 1913, and commanded it, I think for several months; just how long, I have forgotten. It was the one that Admiral Winslow was regularly in command of, and by reason of the fact that I was the senior captain in the division I assumed command of it.

The CHAIRMAN. While you were with the *Utah*, you had sea service, of course.

Admiral BENSON. Yes; I was regularly at sea for practically two years.

The CHAIRMAN. And that was your last sea service?

Admiral BENSON. That was my last sea service. That ended on the 25th of June, 1913.

The CHAIRMAN. Prior to your command of the *Utah* what had been your duties?

Admiral BENSON. Before that I had—well, just prior to that I was in command of the *Missouri*, one of the older battleships.

The CHAIRMAN. For how long was that?

Admiral BENSON. I think only three or four months. I came from the Pacific. I was chief of staff of the Pacific Fleet. I went out to the Pacific in 1908 in command of a cruiser, and then was promoted on the station, and became chief of staff to the fleet out there and remained there until the latter part of February, 1910, when I came East and was on the examining board here for a couple of months, and then went in command of the *Missouri*, commanded her

until August or September, or about that time, 1910, when I was ordered to duty in connection with the fitting out of the *Utah*.

Previous to that I had been commandant of midshipmen at Annapolis.

Previous to that I had been lighthouse inspector of the sixth lighthouse district.

Previous to that I had been executive officer of one of the battle-ships of the fleet.

The CHAIRMAN. That was when?

Admiral BENSON. 1903. It was 1905 when I was executive officer of the *Iowa* in the Atlantic Fleet.

Previous to that I had been on duty at Annapolis as senior assistant to the commandant of midshipmen.

Previous to that I had been flag lieutenant to the commander-in-chief of the Atlantic Fleet, and had been a watch officer on one of our ships cruising in the West Indies and around Africa.

Previous to that my duties had been as a watch officer at sea, or watch division officer, with one or two tours of duty at Annapolis.

Altogether, I have had about twenty-two and a half years of sea service. I think I have had twenty-two and a half at least.

The CHAIRMAN. But from June, I think it was you said, 1913—

Admiral BENSON. June, 1913.

The CHAIRMAN. Up to your retirement, your duties were land duties.

Admiral BENSON. Shore duty.

The CHAIRMAN. Shore duty?

Admiral BENSON. Except when I was with the fleet as Chief of Naval Operations.

The CHAIRMAN. Do you consider the United States as a neutral nation was debarred from preparing its navy for war between 1914 and 1917?

Admiral BENSON. I do not, sir.

The CHAIRMAN. Did not the sinking of the *Lusitania*, followed by other attacks upon the ships of Americans, justify us in preparing for war against Germany?

Admiral BENSON. That of itself I should not say that it would.

The CHAIRMAN. What?

Admiral BENSON. I should say that alone would not.

The CHAIRMAN. Would not justify us in preparing for war?

Admiral BENSON. No.

The CHAIRMAN. When did you first conclude there was danger of our being drawn into this war?

Admiral BENSON. I felt it as soon as war was declared in Europe. It was my firm conviction that sooner or later the United States would be drawn into war with Germany, whether it was with the Allies, or after the war with the Allies was completed; but I felt absolutely certain in my own mind, that sooner or later we would have to fight Germany. I had the conviction. In fact, I felt that conviction even before the war started in 1914; and after it did start I felt that it was sure, because, if I may state it here—and I suppose it is pertinent to the question—I felt very apprehensive, from the beginning of the war, of its final ending, and I felt as firmly as I could under the circumstances that sooner or later we would have to fight Germany.

The CHAIRMAN. Did you not then feel that we were justified immediately after the World War started, in preparing our Navy for war?

Admiral BENSON. From the professional standpoint, I should say yes; but from the attitude of mind of the people of the United States I should say no.

The CHAIRMAN. When did you first feel that we were justified in preparing for war?

Admiral BENSON. As I have just said, from my professional standpoint I would have been prepared for it all the time.

The CHAIRMAN. But from the standpoint of the people of America when did you first feel that you were justified in preparing for war?

Admiral BENSON. I think about the time that Congress decided to declare war.

The CHAIRMAN. April 6, 1917?

Admiral BENSON. Yes.

The CHAIRMAN. And not before?

Admiral BENSON. Not from the attitude of the people of the country; no. But I want it distinctly understood that that is not my professional opinion.

The CHAIRMAN. Did you inform the Secretary of your professional opinion that there was danger of our being drawn into the war?

Admiral BENSON. To the best of my recollection, I did.

The CHAIRMAN. When?

Admiral BENSON. I could not state that. I might go back and state what, as Chief of Naval Operations, I found when I came to Washington and what I did in filling that office to carry out my view.

As I said just now, I assumed the office on the 11th of May, 1917. I found absolutely nothing in my office that was of any service to me. Even the office into which I came was not in proper condition even for an officer of my rank and the position I held. That was about all there was to it; a room in the Navy Department, and I think one or two small rooms outside for clerical help. Of course the General Board had been functioning in its normal and proper way, and the general plans for war that had been worked out by the General Board existed, and certain studies had been made, certain regulations drawn up in regard to communications.

As near as I can recall it now, that is practically all I found in the way of preparation. I immediately took steps to ascertain the conditions of the various bureaus of the department and their readiness for war. The General Board had already taken up the subject, short while before, and I think on the 28th of May the letter went out, the order to the bureau chiefs, to report at a certain time their readiness for war, and report any features in which they were not prepared for war, and periodically after that they had to make reports of progress made in getting their bureaus in shape.

An immediate study was begun with the General Board, of which I was a member, and at my request to study and prepare a proper organization for the whole fleet. That was carried through and was finally completed, and after approval by the Secretary it was put into force. It was an organization that carried us through the war and proved successful in every particular.

The CHAIRMAN. When was that done?

Admiral BENSON. In 1915, soon after I assumed the office of Chief of Naval Operations.

In addition to that the inspection board was increased in numbers so that all of the vessels that were suitable as auxiliaries, or for such purposes as they might be needed for in time of war, were carefully inspected; but before the inspections took place the General Board had very carefully studied out and we had outlined the exact requirements for each type of vessel, such as refrigerators, transports, colliers, and mine layers, or whatever we wanted to use them for. All the details were carefully worked out.

This list of requirements was given to the board of inspection. They inspected every vessel that we had, and each one, as it was inspected, after comparison with the requirements of the particular type, was assigned to that particular duty in case of war; the yard to which she would go to have the necessary alterations made was assigned; and a list of the equipment that would be necessary was made out, and a copy furnished to the bureau concerned and to the yard concerned.

A statement of the changes that would be necessary to be made in the way of alterations was given to the bureaus concerned, and they were required to make the necessary plans and to have them at the navy yards, and as fast as the funds were available this various equipment was ordered to be gathered and collected at these various yards so that in case of war there would be no delay in putting these vessels into operation. That was carried out very successfully. There was not exactly a mining division, but an officer was assigned to take up the question of preparing mines and vessels to exercise and be prepared for mine work.

The naval districts were organized, and an organization worked out for the naval districts, and the way in which these various districts would be handled in case of war, and what would be necessary to do was also worked out.

In the system of communication, as I said just now, quite a careful study had been made in regard to communication, and this study put in proper shape in the way of rules, and the general system was approved soon after I assumed the position of Chief of Naval Operations, and this was constantly improved and the facilities were increased; and I do not remember now whether it was in 1915 or 1916 we mobilized all the communication systems in the country. They gave us, I think it was, 30 hours in which they turned over the telegraph and everything to the Navy Department, and I was able in my office to communicate by telephone and otherwise immediately to every one of our stations on this coast and to one or two on the other, and the Secretary of the Navy was able to communicate by wireless radio with a ship at sea. The leading men and experts of these various companies came to Washington, watched very carefully what was done, and gave us memoranda of what we should do in order to increase the equipments and be prepared in case we had to use them for war purposes. This equipment was all carefully catalogued and the room in which it was to go was marked. The position it was to occupy was marked. By degrees the switchboards were increased in capacity, and every means was taken to be prepared with the communications.

The law which required the other departments, such as the Coast Guard, Coast Survey, etc., that automatically came under the Navy Department in time of war, was passed. Joint boards were ordered,

and every detail that could be worked out beforehand was worked out, to see that when war was declared they would move one into the other, or that regulations would not conflict and there would be no delay in their taking up their duties at once.

The questions of hospitals and of prisons, even, and who should control prisoners, and everything of that kind, was carefully worked out.

The question of the extra supply of powder, of ammunition and torpedoes, and practically everything connected with the preparation of the Navy Department for war, was carefully followed up, and everything was done that could be done with the means that we had at our disposal.

A small appropriation was gotten through in 1916, even anticipating the fact that we would want to put guns on those auxiliaries and extra appropriations or allowances were made to meet the extra demands that had been made for the preparation of powder and torpedoes and various additional equipment that would be needed. That was carried, I believe, as far as was possible, so that everything that the Navy Department had control of at the time was prepared and every possible step was taken short of mobilization of the fleet that could be taken, to prepare the equipment that we had and to, as far as possible, prepare additional supplies, to get ready. That I considered to be my function, and it was accomplished; and as far as possible, it was done without any unusual display and without any opposition from anybody.

The CHAIRMAN. This was all prior to April 6, 1917?

Admiral BENSON. Prior to our going into the war; yes, sir.

The CHAIRMAN. It was the base plan, was it?

Admiral BENSON. I was saying that I felt from the beginning that we would have to go into the war, and I have enumerated the steps I took to prepare in case we were to get into the war.

The CHAIRMAN. But you have stated that in view of the attitude of the American people we were not justified in preparing to go into the war prior to the time we actually did go into the war?

Admiral BENSON. I did; and I would still repeat that. But I would say this, Mr. Chairman, that we have a Navy, and the function of that Navy is to keep it prepared for war, as nearly as possible, all times. That is what I understood that to be.

The CHAIRMAN. This was just a general peace plan, was it?

Admiral BENSON. A general peace plan to be prepared for war with everything we have got. That is the function of the Navy, and when the Navy fails to have every part of its equipment and every vessel prepared for war, it is failing in its function, and I felt that to be my duty, and I carried it out.

Senator PITTMAN. Will you excuse me, Mr. Chairman; I desire to be excused from this hearing for a short time. I want to apologize to the committee and to Admiral Benson for being compelled to go but there is a very important meeting of the Foreign Relations Committee that I must attend. I hope to be back in a very few minutes.

(At this point Senator Pittman left the hearing.)

The CHAIRMAN. Then, Admiral, had the world not been engaged in war subsequent to the time when you went in as Chief of Naval Operations, and prior to our going into the war, you would still have done the same thing?

Admiral BENSON. Absolutely; I would have done the same thing, yes, sir, because I feel that that is what should be done.

The CHAIRMAN. Yes.

Admiral BENSON. But I do not wish to avoid the fact that I was strongly impressed, and possibly used more energetic action because I felt so sure we would get into the war; but I feel that I should have done it anyway. If I went back into that office to-day, for instance, I would feel the same thing.

The CHAIRMAN. So there were no special plans made that had to do with war of the kind we got into.

Admiral BENSON. With the particular war that we got into. I say I did feel that we would get into it, and we may have increased the supply of ammunition or something of that kind more than we would have done.

The CHAIRMAN. Do you feel that you went further in those plans than you were justified in going?

Admiral BENSON. I do not, sir.

The CHAIRMAN. After the German ambassador was given his passports in February—I think it was February 2, 1917—was it not very evident that we were sure to get into the war?

Admiral BENSON. As I have said, I felt all along that we would. That phase of the question from that on was a political one that I had nothing to do with.

The CHAIRMAN. But it was practically certain we would get into the war after the German ambassador was given his passports, was it not?

Admiral BENSON. I think it was; yes, sir. I felt it all along.

The CHAIRMAN. And yet you think we were not justified in taking any special steps between that time and April 6, 1917, to make any special preparations for war with Germany?

Admiral BENSON. I say the feeling of the people was such, as I understood it. Professionally I felt we ought to have been prepared for war long before.

The CHAIRMAN. But from the feeling of the people you think we ought not to have made any special preparations?

Admiral BENSON. As I can recollect it now; yes, sir.

The CHAIRMAN. You say you informed the Secretary of your belief that we would get into the war, but you do not recall when you informed him of that?

Admiral BENSON. No, sir.

The CHAIRMAN. Immediately on your appointment as Chief of Operations?

Admiral BENSON. I felt so all along, and I must have said it from time to time; but I do not wish to be put in the position, Mr. Chairman, of putting any blame on the Secretary of the Navy for lack of preparation for war.

The CHAIRMAN. You have already answered questions about your own belief and your actions, you know.

Admiral BENSON. Yes, sir.

The CHAIRMAN. No matter what conclusions may be drawn from the questions.

Admiral BENSON. Yes.

The CHAIRMAN. And you repeatedly informed the Secretary of your professional belief that we would get into the war?

Admiral BENSON. I do not know that I would put it that way; whether I did or not. That is a question that I could not answer exactly as you want it. I could not say positively whether I did or not.

The CHAIRMAN. Your relations with the Secretary were very close, were they not?

Admiral BENSON. Yes, sir.

The CHAIRMAN. If you had this professional belief about our getting into the war, is it not probably that you would have made it manifest on numerous occasions?

Admiral BENSON. Oh, I think that I did. That is my belief that I did.

The CHAIRMAN. Did you advise the Secretary to prepare for war?

Admiral BENSON. Well, I must have done it, Mr. Chairman. Just at what time and in what way, it would be difficult for me to answer that question. I felt it strongly, and I felt my responsibilities and my duties, but just to what extent I expressed them, it is impossible for me to say now. From time to time I did the duty that came to me; I realized that I was responsible for the situation and did everything that I felt it was my duty to do with reference to it. I can not answer your question in any more detail than that.

The CHAIRMAN. You do not recall especially advising the Secretary to prepare for war?

Admiral BENSON. No; I do not.

The CHAIRMAN. At any time?

Admiral BENSON. No; I do not.

The CHAIRMAN. In view of your feeling that on account of the attitude of the American people we were not justified in preparing the Navy for war, do you think we would have been justified in preparing plans for the Navy in case of war?

Admiral BENSON. We had plans in case of war. As I stated in the beginning, the General Board had plans that had been studied. We had several plans. We had our battle plans that were very confidential, and particularly for any operations in the Atlantic. We had plans, that were developed up to a certain extent, in the Pacific. There were certain phases of the Pacific situation that were not fully developed, and they are not fully developed in some respects now. But as far as it was possible, they were developed. The Atlantic Fleet had been drilled in the battle plans that we had, for several years. As commanding officer of the *Utah*, I frequently took part in the general battle plans that we had, and they were worked out on the game board at Newport, at the War College, and most officers were supposed to be familiar with the plans that we had.

In regard to the war that was facing us, the situation was a very peculiar one. I appreciate the emphasis that has been laid on the question of plans, and I think that possibly it has played a part that really is not altogether just to the situation. For instance, we did not know that we would be drawn into this war with the Allies, but if we were drawn into the war with the Allies we would have to enter it in the way in which they wanted us to enter it; that is to say, that our forces would have to be combined with their forces in the way that would carry out the plans and policies that they had set out and had been following for the past three years in carrying on the war. It would be utterly impossible for the United States to

have sent a naval force into the European waters without carrying out a policy or plan of that kind, because we would have had no place to base our vessels or to exercise an absolutely independent command, and we would simply have complicated the situation by attempting any such line of action; so that the only thing to do was to get, as we did, what we had in the best condition possible, and be prepared to enter the war in such a way as would develop when the time came.

The CHAIRMAN. Without any prearranged plans?

Admiral BENSON. Plans of what kind? That is a plan in itself.

The CHAIRMAN. Specific plans for the use of the Navy in the war with Germany.

Admiral BENSON. Well, in a way that is a plan in itself; that is, that we would get everything ready and be prepared as well as we could with what we had to combine with the Allies in their policies and plans that they might have when we joined with them, and would in that way get the plans and policies that they were carrying out. I did not know, nor did anyone else on this side know, the details of any plans or policies that the Allies were carrying out.

The CHAIRMAN. But without any special plans as to how we would use our battleships and destroyers or submarines or aircraft or screening vessels in the war?

Admiral BENSON. Those plans were all clearly laid down in our battle plans.

The CHAIRMAN. In the old peace battle plan?

Admiral BENSON. If you call it a peace battle plan.

The CHAIRMAN. The old plan that was ready in time of peace for any war that might come up?

Admiral BENSON. Yes; of course we were studying the development of aircraft and the best method of using them all the time. Of course, that was something new, and we were developing that as fast as we could.

The CHAIRMAN. But there were no especial changes that had been made in the old plans to which you have referred, prior to our going into the war?

Admiral BENSON. Only in a general way; mobilizing the fleet, and, for instance, the General Board had drawn up a plan in which they expressed their views that we should mobilize the fleet at a certain place, and what we should do with the different vessels. That plan had been drawn up in a general way and submitted to the department.

The CHAIRMAN. When?

Admiral BENSON. That I could not tell you, what date that was done.

The CHAIRMAN. Was that the plan that was submitted immediately before the war, which was lost?

Admiral BENSON. I could not say whether that was it or not, sir. I can not go into the details, Mr. Chairman; but I remember that we did get plans of that sort from the department. For instance. in - case—

The CHAIRMAN. But you can remember whether it was immediately before the war or not, can you not?

Admiral BENSON. Yes; just before the war.

The CHAIRMAN. Immediately before the war?

Admiral BENSON. Within a month or two, yes, sir; possibly nearer than that.

The CHAIRMAN. Do you recall what became of that plan?

Admiral BENSON. I do not.

The CHAIRMAN. Or whether it was adopted?

Admiral BENSON. It was adopted in general principle. As a matter of fact, the general policy that we would base a plan on was discussed, and then when it was decided that we would follow a general policy the plans were drawn up to meet the policy, and frequently, in what I had to do, I had the idea and policy in my own mind. The plans were worked out principally for somebody else to follow, so that I did not give quite the attention I might, personally, to the development of plans or to their execution. That was the duty of some one else. But I do know that plans of that character were submitted to the department.

The CHAIRMAN. And was that for the case of a war with Germany — for the special case of a war with Germany?

Admiral BENSON. Yes; we got, for instance, like this coming from the General Board, recommending that the fleet be brought north, and mobilized in the lower Chesapeake, and that certain other things be done; that vessels be sent to navy yards and that certain things be done to them; which I think would answer the question you asked. Whether that came as a general plan or simply as a recommendation it would be difficult for me to state definitely; but we did get such recommendations and put in very definite, concrete form, and it was as regards what should be done with the vessels of the fleet in the way of repairs, etc., in order to be prepared for the war if it came.

The CHAIRMAN. How do you distinguish between a recommendation and a plan? The committee has not been able to get very definite testimony from witnesses as to just what constitutes plans.

Admiral BENSON. It is a little difficult to draw a very careful distinction, except that a plan of operations, for instance just what would be done with the fleet—the various elements of the fleet—in case certain operations are to be performed, would be drawn up. That would be a plan. Then a recommendation would be a statement, coming from, say, the General Board, outlining the general features of this plan, and recommending that it be carried into effect and executed.

The CHAIRMAN. In order to become a department plan it would have to be approved, would it not?

Admiral BENSON. Yes; it would have to be approved.

The CHAIRMAN. So that no recommendation or plan of any kind becomes a department plan until it is approved?

Admiral BENSON. Not until it is approved; no.

The CHAIRMAN. Admiral, in view of your own statement that on account of the attitude of the American people it would not have been proper to prepare the Navy for war before April 6, 1917, I will ask you whether you think that it would have been proper to make plans for the war and have them all ready before April 6, 1917.

Admiral BENSON. Anything that we would have done, Mr. Chairman, in the way of plans before we actually went into the war, further than a plan of mobilizing the fleet and the method in which the vessels should be sent to yards, etc., for repairs, in my mind

would have been nothing more than, you might say, an academic study. That was my view of it then, and it is my view of it now.

The CHAIRMAN. Admiral, would it have been an academic study if the Navy Department had made a thorough investigation of all of the shipping of the country that might be used in case of war, and had prepared a plan to commandeer those ships, and to have equipment ready to put on them immediately on the declaration of war? Would that have been an academic study?

Admiral BENSON. That was done, Mr. Chairman, as I stated.

The CHAIRMAN. Was that done?

Admiral BENSON. We actually did that as far as it was possible with what we had. I stated that the inspections board was increased in number, and that every vessel was listed and a careful study made of the requirements for each ship; and as each vessel was inspected it was assigned to its particular type and it was assigned to the navy yard where it would have its alterations and preparations made; and so far as the appropriations would admit, the necessary equipment, such as signal apparatus, searchlights and everything of that kind, was prepared and placed at the yards ready for that.

The CHAIRMAN. Then a plan of that kind would not be an academic plan?

Admiral BENSON. No; if you call that a plan, it would not. I was not thinking of that particular feature of it.

The CHAIRMAN. And that sort of plan you actually did draw up?

Admiral BENSON. We actually did it. As a matter of fact, I did not study that out. I gave the order to do it and it was done.

The CHAIRMAN. Were you justified in doing that, if you were not justified in preparing the Navy for war?

Admiral BENSON. Certainly.

The CHAIRMAN. Why?

Admiral BENSON. Because that is a function of the Navy. There is no other reason for its existence.

The CHAIRMAN. It is a function of the Navy to be prepared for fighting, is it not?

Admiral BENSON. Yes.

The CHAIRMAN. And yet you say we were not justified in preparing the Navy for fighting?

Admiral BENSON. I made a distinction, Mr. Chairman. I said with what we had. What I mean is, we would not have been justified in making unusual preparations such as were made immediately after war was declared.

The CHAIRMAN. Is not that an unusual preparation, to prepare to take over a large number of ships?

Admiral BENSON. No, sir; I would feel that I was neglecting my duty if, as Chief of Naval Operations, I did not have all of that data ready.

The CHAIRMAN. And you feel that at all times we are justified in having all of that data?

Admiral BENSON. Absolutely; and not only justified, but that we would have been negligent if we did not have it.

The CHAIRMAN. Now did you, as a matter of fact, have a plan to utilize all of the vessels of the country that might be used during the war by the Navy?

Admiral BENSON. In case we had to meet an enemy fleet, we did have such plan.

The CHAIRMAN. Then after April 6, 1917, you could have taken over at once all of these vessels with regard to which you had prepared?

Admiral BENSON. If we had had the authority, we could.

The CHAIRMAN. If you had had the authority?

Admiral BENSON. If we had had the authority. You know, we did not have the authority to take them over until sometime in June; I think it was the 15th of June before we got authority to take them over.

The CHAIRMAN. If, when war was declared, the department had asked for that authority at once, is there any question but what they would have gotten it?

Admiral BENSON. That I could not say. I know that we did not get it, and it was pending for some time.

The CHAIRMAN. Was any such request made to Congress, to your knowledge, by the department?

Admiral BENSON. That I do not know, sir.

The CHAIRMAN. In any event could you have prepared the Navy for war without the consent of the Secretary of the Navy?

Admiral BENSON. No, sir.

The CHAIRMAN. I have asked you what advice you gave to the Secretary about preparing the Navy for war. Did the Secretary ever give you any definite instructions with regard to active preparation for war, in regard to personnel, material, or organization, prior to the declaration of war?

Admiral BENSON. Not as a definite preparation for war; I do not think he did. I can not recollect his having done so.

The CHAIRMAN. Did he ever hold you up or delay you in any way when you were seeking to make any such preparations?

Admiral BENSON. Well, it depends upon how far you mean. I think this: I think that the Secretary was very careful to go over the recommendations that were made to him, and that he gave very careful consideration to matters pertaining to any increases in expenditures and things that might involve unusual outlay, and there were delays in that way; but I do not think there was anything I could state definitely that you might call a holdup, except that there were many things that I felt, as a naval officer, that we ought to do; that he felt as a policy we ought not to do. But in what we had, with the facilities we had, I do not think that he ever interfered with getting them ready, as far as we could, for war.

The CHAIRMAN. You say that there were many things you thought ought to have been done. To what do you refer, for instance?

Admiral BENSON. Well, I would have been glad to have seen a larger number of the smaller guns prepared for going on the auxiliaries.

I would have been glad to have seen the ships in reserve fully manned and preparations made so that in case of war we could not only have manned the ships in reserve at once but the auxiliary vessels and things of that kind.

I would like to have seen more active steps taken to prepare our powder supply and things of that kind. But we had a large surplus of that, and due to the situation that the chances were that we would not have to meet the enemy fleet at an early date, and the world

condition, and the other big expenses that the Government was meeting, that it was policy to delay those things until later; and subsequent events justified the delay in those cases.

The CHAIRMAN. How do you mean, delay them until later; until we had gotten into the war?

Admiral BENSON. Yes; until the immediate situation was better provided for.

The CHAIRMAN. And you think that subsequent events justified those delays?

Admiral BENSON. Yes; I think so.

The CHAIRMAN. Why?

Admiral BENSON. Because we did not need them.

The CHAIRMAN. That is, if they had all been done before we went into the war we would have been better prepared when we went into the war?

Admiral BENSON. I do not quite get your question.

The CHAIRMAN. That is, if those matters which you wanted to have done and which were not done, had been done, and we would therefore have been better prepared for war, you think it would have been a good thing?

Admiral BENSON. No; I did not say that, and I do not want to be understood as saying that.

The CHAIRMAN. Well, I do not want to misrepresent you. I want to know if you think that.

Admiral BENSON. No; I said as a naval officer I would have been glad to have had them ready, but I think that the Secretary——

The CHAIRMAN. You said that subsequent events justified him in not getting them ready?

Admiral BENSON. Yes; because we did not use them.

The CHAIRMAN. Then they were not things that would have been of use in the war?

Admiral BENSON. Of course, there were a lot of things we did not use, but I would have gotten them ready, just the same; and we have got to. We are doing that all the time. We have lots of things in the Navy that we wear out from year to year, and——

The CHAIRMAN. But did you not make recommendations about preparing some things for the Navy that would have been of use in the war?

Admiral BENSON. Yes.

The CHAIRMAN. Were they all adopted at once?

Admiral BENSON. No; I do not think so.

The CHAIRMAN. Would it not have been better if they had been adopted at once?

Admiral BENSON. Yes; I think so.

The CHAIRMAN. Then subsequent events did not justify delay in regard to them?

Admiral BENSON. Yes; I think they did, because we did not—I am trying, Mr. Chairman, to distinguish between my own position as a naval officer and the attitude of the Secretary as the official head of the Navy.

The CHAIRMAN. Then what do you mean by saying that subsequent events justified him in not preparing——

Admiral BENSON. Just what I say. We did not use them.

The CHAIRMAN. Then I ask you if you did not recommend some things that you did have to use later in the war, some things that were turned down by the Secretary?

Admiral BENSON. Yes. For instance, the question of the personnel. I think we were a good deal short on personnel.

The CHAIRMAN. Do you think subsequent events justified and bore out the Secretary on that?

Admiral BENSON. No; I did not say they did.

The CHAIRMAN. Then I do not see how that tallies with your statement.

Admiral BENSON. I did not make an unconditional statement. I referred to the supplies, especially.

The CHAIRMAN. Then in certain cases events——

Admiral BENSON. There was the question of personnel, particularly. There may have been others. But it is impossible for me, Mr. Chairman, to answer questions of that character in such detail. I am trying to make a plain, honest statement of the situation as it was.

The CHAIRMAN. Then you would say that in certain cases subsequent events justified the Secretary in not doing things, but in certain other cases subsequent events did not justify the Secretary in not doing them?

Admiral BENSON. Yes; of course, I think there were certain things that were not justified, if that is your point. There were.

The CHAIRMAN. Yes.

Admiral BENSON. I was referring at the time to particular ones. There were things that I think we were not justified in not being prepared on, and personnel particularly.

The CHAIRMAN. Yes. You say that from the very start of the war, professionally, you thought we would probably be drawn into the war?

Admiral BENSON. I did.

The CHAIRMAN. Did the Secretary have the same feeling?

Admiral BENSON. I do not think he did. Of course, I do not know what the Secretary thought, but I do not think that he did.

The CHAIRMAN. From your observation of him, when did he first have the idea that we would be brought into the war?

Admiral BENSON. That would be impossible, Mr. Chairman, for me to express that.

The CHAIRMAN. Did he, subsequent to the sinking of the *Lusitania*, so far as you know?

Admiral BENSON. I can only answer that in this way: I do not know whether the Secretary thought we would be drawn into the war before war was declared or not.

The CHAIRMAN. You do not know, at any time before that?

Admiral BENSON. I do not know at any time whether he thought so or not.

The CHAIRMAN. There was nothing that indicated to you that he did think so up to that time?

Admiral BENSON. No, sir; not to the best of my recollection, after three years.

The CHAIRMAN. If you had been ordered and permitted to begin preparations for war after May, 1915, would not the Navy have been better prepared that it was in April, 1917?

Admiral BENSON. Yes, sir.

The CHAIRMAN. Would you say that the Navy was in all respects prepared for war in April, 1917?

Admiral BENSON. It was not.

The CHAIRMAN. Would you say that the statement in the Secretary's annual report that the Navy was from stem to stern ready for war in April, 1917, was justified?

Admiral BENSON. Not from my point of view, no.

The CHAIRMAN. Was its personnel adequate?

Admiral BENSON. No.

The CHAIRMAN. Were all the ships ready?

Admiral BENSON. They were ready as far as—no, they were not all ready.

The CHAIRMAN. Were they fully manned?

Admiral BENSON. They were not fully manned.

The CHAIRMAN. Was the Navy mobilized?

Admiral BENSON. It was not.

The CHAIRMAN. Were there any scouts or screening vessels with the battleship force when it came north?

Admiral BENSON. There were some.

The CHAIRMAN. Previous to the war?

Admiral BENSON. There were some destroyers. I have forgotten how many. Not very many. I will say that it was not properly screened.

The CHAIRMAN. And do you consider scouts and screening vessels as of importance?

Admiral BENSON. Yes.

The CHAIRMAN. Why were not these vessels with the fleet?

Admiral BENSON. Because at the time that we went into the war, up to that time, if you remember, it was strongly impressed upon everyone to observe a strict attitude of neutrality, and it was necessary for us as a neutral—we were compelled to carefully guard the principle of neutrality, and our vessels were scattered throughout the world, and for that purpose I would say they were fairly well placed for guarding the neutrality that the United States had to observe.

The CHAIRMAN. To-day, should a battle fleet be provided with scouts and screening vessels?

Admiral BENSON. Yes.

The CHAIRMAN. At all times, in peace, should a battle fleet be so prepared?

Admiral BENSON. Yes.

The CHAIRMAN. Then why do you say that on account of the loss of neutrality we could not prepare our battle fleet as it should be prepared in time of peace?

Admiral BENSON. Because we did not have the vessels to do it.

The CHAIRMAN. Then it was not on account of neutrality—

Admiral BENSON. And they were scattered in all parts of the world, and we did not have an ample force to move a well-balanced fleet—we did not have a well-balanced fleet and we were not in position to do it.

The CHAIRMAN. Then it was not on account of loss of neutrality; it was on account of our not having the vessels to put there, was it?

Admiral BENSON. I thought you were asking me, Mr. Chairman, in regard to what we actually had. My answer was, in answer to that phase of the question, in regard to what we had. We could not bring them to it.

The CHAIRMAN. But you said that we could not bring them home on account of the loss of neutrality.

Admiral BENSON. I said that we could not. I said they were better placed for that purpose, and we did not have enough to properly screen the fleet. We did the best we could with them.

The CHAIRMAN. Perhaps I misunderstood you. I thought you said that on account of the loss of neutrality we could not gather together those vessels at that time.

Admiral BENSON. No; I think I stated that we had to guard our neutrality, and as the vessels were distributed throughout the world, they were very well, or fairly well, I said, distributed for that purpose.

The CHAIRMAN. How do you mean, guard our neutrality?

Admiral BENSON. For instance, we had to have vessels in the Pacific; we had to have them in the Far East; and we had to have them all along the coast; and we had to have destroyers here on our east coast, particularly.

The CHAIRMAN. What do you mean by guarding our neutrality?

Admiral BENSON. To see that it was not violated; that the vessels were not doing things contrary to the laws of war that neutrals have to observe.

The CHAIRMAN. I think I may have misunderstood it. I thought you said that on account of the loss of neutrality we would not have been justified in getting our vessels together.

Admiral BENSON. No; I did not mean that. I meant that we had to safeguard our own responsibility, but we did not have enough, and, in fact, we never have had.

The CHAIRMAN. But, of course, we should have had all the vessels we did have ready for such a purpose, should we not?

Admiral BENSON. As far as possible, we should have.

The CHAIRMAN. And did we have them so ready?

Admiral BENSON. No; I do not think they were all; but, as you remember, the ships were cruising; those that were in full commission were cruising. The vessels had been kept cruising, and in the summer of 1915 and 1916 they were kept as completely ready as possible. We had maneuvers in 1915 in which an imaginary fleet was the German high seas fleet; expecting just a possibility of having eventually to come in contact with the German fleet. We had maneuvers off the coast here, and in the winter of 1915 and 1916 the fleet was sent south as usual in order to keep up its drills and target practice, etc., and in every way be as nearly ready for war as it could be kept. Of course cruising in southern waters as it was, exercising constantly, naturally there were certain conditions that would be produced in the vessels that before sending them even out for an engagement, unless it was necessary to do so very quickly, it would be advisable, if not necessary, that they should go to a yard and be put in trim before being sent far away, and in that way to that extent every vessel was not ready. And also as I recall it now there may have been vessels—and I think there were vessels—that were in reserve, both on this coast and on the west coast, that were not in as good condition as they should have been. They were not ready. There were a great many reasons for that. The situation in this country in doing everything we could to help the Allies with that they needed made such a demand on the labor market, etc., that it was hardly advisable to break in on that unless it became absolutely nec-

essary, I should say. In other words, the policy that we pursued was adding to the cause quite as well one way as the other.

The CHAIRMAN. Then you would not say that all of the lighter forces, such as scouts and cruisers, that we had at the time of the outbreak of the war and that were not being used to protect our neutrality were ready and available for use with the fleet?

Admiral BENSON. I do not think all of them were, no, sir. I do not think so. Just which ones I could not say.

The CHAIRMAN. You were a graduate of the War College, Admiral?

Admiral BENSON. Not what you would call a graduate, no. I took the summer course at the War College, and I have been there on various occasions, and have kept pretty closely in touch with the War College; but I am not what you would call a graduate of the War College, I suppose, because the War College has developed considerably since—

The CHAIRMAN. How long a course did you have at the War College?

Admiral BENSON. I think in 1906 I was there for two or three months; just how long I have really forgotten. I have been back to the War College. I have delivered a lecture there on certain strategic features in the Pacific. I have kept in touch more or less with the War College work, and while I have not been an actual student at the War College, I believe that I have kept about as well informed of the practical questions connected with the War College and its work as most officers, and I have been in the fleet and actually commanded a battleship in the fleet, and all, where the problems and principles of the War College were actually being developed. I do not pose as a theoretical War College officer. I am simply a plain sailor and practical naval officer.

The CHAIRMAN. You say that you have kept up with the War College and with what the War College was doing. You do not mean that anybody can get the same experience outside of the War College that they could while attending it, of course?

Admiral BENSON. No; I do not; and I think you can not always get the experience at the War College that you get outside.

The CHAIRMAN. It is very different work, is it not; entirely?

Admiral BENSON. Absolutely; and I would like to say I consider it a very necessary and a very important work, and one that can not be too strongly emphasized, Mr. Chairman.

The CHAIRMAN. But you took no course there since 1906?

Admiral BENSON. No; I have not been there, regularly attached there, since 1906.

The CHAIRMAN. Do you think that our battleship forces, with a few destroyers and no scouts and no screening vessels, no submarines or aeroplanes or battle cruisers, could have successfully met the German fleet in mid-Atlantic soon after we had declared war, if the German fleet had been in the same condition that it was at the time it met the English fleet in the battle of Jutland?

Admiral BENSON. Without any destroyers or cruisers or airplanes?

The CHAIRMAN. No. I did not say without any destroyers, but with the few that they had at that time.

Admiral BENSON. Whether I think they could have successfully done it?

The CHAIRMAN. Yes.

Admiral BENSON. That is so thoroughly hypothetical that I would even hate to express an opinion on a thing of that kind.

The CHAIRMAN. Why do you think it is so hypothetical?

Admiral BENSON. Most naval battles have been surprises. I do not know that the discrepancy would have been so very much greater than what actually did take place; but I do not like to mention names. I do not know that the discrepancy would have been so very much greater than what actually did occur.

The CHAIRMAN. What do you mean, what actually did occur? Do you mean at the battle of Jutland?

Admiral BENSON. Yes; what took place.

The CHAIRMAN. At the battle of Jutland?

Admiral BENSON. Yes; in middle Atlantic, that distance from their base. I doubt whether that discrepancy would have been very much greater. At any rate, as commander in chief of our fleet, I should not have hesitated to have made the attempt.

The CHAIRMAN. You would not have hesitated?

Admiral BENSON. No, sir.

The CHAIRMAN. Do you believe that a fleet made up as ours was at that time, and with the destroyers that we had at that time, could have met the German fleet, with their battleships and destroyers and battle cruisers and other vessels that they had at that time, with a chance of winning?

Admiral BENSON. I am sure, as commander in chief of the fleet that I should not have hesitated to make the attempt.

The CHAIRMAN. Of course, any commander of a fleet in a critical case would do whatever was necessary—would do his duty, and if necessary go down with his ship. What I am asking you is whether at that time our fleet was in condition to meet the German fleet as it was at that time?

Admiral BENSON. Theoretically, no; Mr. Chairman, it could not be, because I understand you to mean that the German battle fleet had all of its battle cruisers and light cruisers and all of its destroyers.

The CHAIRMAN. Practically four times as many destroyers as we had?

Admiral BENSON. Yes.

The CHAIRMAN. So that you would not——

Admiral BENSON. Theoretically, it is impossible.

The CHAIRMAN. Several of the witnesses have already testified that our fleet could have met the German fleet and probably could have whipped it. You would not say that that was so?

Admiral BENSON. Theoretically it is an impossibility. It is a purely theoretical question, and the theoretical answer is that it would have been an impossibility.

The CHAIRMAN. According to the laws of war it would have been an impossibility?

Admiral BENSON. The whole thing is theoretical, and my answer will have to be the same. Theoretically it would have been impossible.

The CHAIRMAN. And an admiral or commander of a fleet who would have informed the department that his fleet in that condition could have met the German fleet on a footing of equality would be at least lacking in his duty, would he not?

Admiral BENSON. I should consider that it was. I should consider that it was, with the situation as you stated. I would have no hesitancy in saying so.

The CHAIRMAN. Do you think that the War College or the General Board would justify the policy of leaving our battleships with no scouts or screening vessels in the event of a war?

Admiral BENSON. Do I think they would be?

The CHAIRMAN. Do you think they would justify such a policy?

Admiral BENSON. I do not. They could not. They never have.

The CHAIRMAN. Now, why did we not have any scouts? What was the reason for that?

Admiral BENSON. Well, that is a pretty difficult question to answer, Mr. Chairman. As you know, so far as I have been in the service, which is 48 years now, we have studied the question of preparing the Navy for war, and from time to time the things that were necessary for this preparation have been submitted and they never have been fully complied with. The reason, in my opinion, is this, that the technical officers in the service, who are educated by the Government for a special purpose and for no other particular purpose, have never been permitted to exercise fully the responsibilities, as I see them, that should be placed upon them. They study these questions; they prepare what they believe is necessary for proper preparation of the Nation's Navy for war, and those recommendations have never been fully carried out.

The CHAIRMAN. Well, Admiral, I think you misunderstand my question, or I may not have put it clearly. I meant, why did we not have the scouting vessels which we had available for service with the fleet? Who was responsible for our not having them with the fleet?

Admiral BENSON. Those that were in active commission were scattered in different parts of the world for the ordinary cruising purposes where the vessels are ordinarily kept, and, as I said just now, it was felt that they were in a position to look out for the interests of the United States in these various places where they were located.

Then, as I can recall it—I do not want to make a statement that is not exactly correct—the view I had at that time was, in regard to raiders, in case we did get into the war that these ships were scattered around the world where they would be in position to act in reference to the enemy raiders. That, to the best of my recollection, is one of the views that I had, and which affected the policy that was pursued at the time.

The CHAIRMAN. Were you responsible for the policy yourself?

Admiral BENSON. Of where they were?

The CHAIRMAN. Yes; of not having them with the fleet.

Admiral BENSON. Yes.

The CHAIRMAN. You yourself were?

Admiral BENSON. Yes; I assume that responsibility.

The CHAIRMAN. And if the fleet and the Navy were not in all respects ready for war and for battle, were you responsible or was the Secretary responsible?

Admiral BENSON. No; I was not responsible for it.

The CHAIRMAN. You were not?

Admiral BENSON. And I do not think that the Secretary was responsible for it.

The CHAIRMAN. You do not think that the Secretary was responsible?

Admiral BENSON. No, sir.

The CHAIRMAN. Who was?

Admiral BENSON. I do not think we had the ships to have it properly prepared.

The CHAIRMAN. But if those ships that we had were not ready, then who is responsible?

Admiral BENSON. I think the situation was, largely, as I said a little while ago, these vessels were cruising around in places where, in my judgment, they were well placed.

The CHAIRMAN. I know, but somebody must have been responsible for taking those forces of the fleet and having them either ready or not ready for war.

Admiral BENSON. They were performing the duty which at the time was considered necessary; and as to the placing of the ships, I was responsible for where they were placed.

Not only that, but I was not responsible for their coming north when they did. I opposed that when the fleet came north.

The CHAIRMAN. Who was responsible for that?

Admiral BENSON. I think the Secretary decided on that, on account of the recommendation of the General Board. That is my recollection of it. I would have kept the fleet in southern waters.

The CHAIRMAN. There must have been some responsibility for all the ships that were not ready in all respects for war, and now I want to find out where that responsibility lies, whether with you as Chief of Operations, or whether it lies with the Secretary.

Admiral BENSON. But, Mr. Chairman—

The CHAIRMAN. That is a hypothetical question, if you like. Say, if they were not, who would be responsible?

Admiral BENSON. Well, it would be very largely, if not altogether, you might say, the Chief of Naval Operations. It ought to be, if it was not.

The CHAIRMAN. Yes; but is that—

Admiral BENSON. It ought to be his responsibility.

The CHAIRMAN. Yes; but that is a different matter. Would you say that he was responsible?

Admiral BENSON. It is hard for me to say, Mr. Chairman, if he had recommended to the Secretary a different line of action, whether he would have approved it or not, because I felt that at the time that with the exception of bringing the fleet north, those ships were fairly well distributed for the actual conditions. You see, from the questions you are asking, it is a little difficult. As I said in the beginning, I stated my broad principle that as a naval officer I would have had the fleet mobilized and I would have had many more vessels and would have had everything ready for anything we were called upon to do, if I had known that it was the intention of the people to go to war; but under the general conditions that existed, of our strict neutrality and the necessity for maintaining that attitude, which had been made so evident by the people of the country, I felt then, and I still feel, that the fleet as it was distributed, under the circumstances and taking these things into consideration, was about as well as we could do. I do not know whether I made myself plain or not. It is a little difficult to do.

The CHAIRMAN. That is not what I want to know. I want to know whether they were not—and you have already testified that they were not—in all ways ready for war. Now, if they were not in all ways ready for war, the vessels that we actually had in our

possession, on whom was the responsibility for their not being so ready?

Admiral BENSON. I think the conditions were very largely responsible for it.

The CHAIRMAN. That is, you do not think you were responsible, and you do not think that the Secretary was?

Admiral BENSON. That is, I think that the Chief of Naval Operations would be responsible for not recommending to the Secretary, and insisting, that everything be ready.

The CHAIRMAN. Then, if they were not ready, the Chief of Naval Operations was responsible. We have had a great deal of testimony as to whether they were or were not ready. Now, I want to see where the responsibility lies in case they were not ready.

Admiral BENSON. It is very difficult to say.

The CHAIRMAN. It could not be on anybody but the Chief of Naval Operations or the Secretary, could it?

Admiral BENSON. Yes; it could be on both, to a certain extent.

The CHAIRMAN. Who has the final say?

Admiral BENSON. The Secretary of the Navy has the final say.

The CHAIRMAN. In every case?

Admiral BENSON. But he is very largely influenced by the Chief of Naval Operations.

The CHAIRMAN. Precisely; but he has the responsibility on his shoulders?

Admiral BENSON. Yes.

The CHAIRMAN. I think, under the law, the Chief of Naval Operations does not have the responsibility?

Admiral BENSON. No; except for certain things; the preparation of plans and things of that kind. But he unquestionably should be responsible for it.

The CHAIRMAN. So that you would say that in all cases if the fleet was not in all respects ready for war, that is the available fleet—the responsibility, the ultimate responsibility, lay with the Secretary of the Navy?

Admiral BENSON. No; I would not say that, either.

The CHAIRMAN. I want to you say something, one way or the other.

Admiral BENSON. I think it was a shared responsibility, very largely.

The CHAIRMAN. A shared responsibility?

Admiral BENSON. Yes; I mean the Chief of Naval Operations, for instance, may influence the Secretary. I might have, if I had urged the Secretary of the Navy—

The CHAIRMAN. In view of the question, it is not involved in this case. All the evidence we have had is to the effect—

Admiral BENSON. I say this: If I had urged the Secretary more strongly to mobilize the fleet and to bring these ships in and get them all ready, it is possible that he might have done it; so you see it may have been that I did not urge him strongly enough. But I did not think, under the circumstances, that it was necessary to go further than we did, taking into consideration all the conditions of neutrality, and all conditions; because I took this view of it—I will put it this way—that while I had my strong professional views—strictly professional—as to what was the best thing to do, I also appreciated, as

I felt it, the general attitude of the country and of the Administration, and that it was the proper thing to try to meet that situation as far as possible.

The CHAIRMAN. That is all very well, Admiral, but you were responsible or you were not responsible. In the law which created the office of the Chief of Naval Operations, at first the proposition was made, and I think recommended by the General Board, that the word "responsible" be put in, in which case the Chief of Naval Operations would have been responsible for the preparedness of the fleet; but the word "responsible" was cut out of the law before it was passed, as I recall the matter.

Admiral BENSON. I can not recall that particular fact. I do not know anything about it.

The CHAIRMAN. The responsibility was therefore taken away from the Chief of Naval Operations. We have had a good deal of testimony about the matter, and I think that I am correct in that statement.

Admiral BENSON. Putting it on the ground, Mr. Chairman, of a strict interpretation of the law, of course the Secretary is ultimately responsible for anything; but I do not want to be put in the position of trying to shake any of my responsibility as Chief of Operations and putting it on the Secretary of the Navy.

The CHAIRMAN. I understand. You do not recall about the word "responsible" being put in the act?

Admiral BENSON. I do not, sir. I paid very little attention to the question of legislation. I had as much as I could do to attend to the daily duties I had.

The CHAIRMAN. Do you know whether, under the law, you were or were not responsible?

Admiral BENSON. I consider I was responsible for certain of the plans; but even that part, I was responsible under the Secretary of the Navy. I felt that I was responsible under the Secretary of the Navy.

The CHAIRMAN. Of course in following out your duties you would consult the act under which you were appointed?

Admiral BENSON. Yes, I did.

The CHAIRMAN. And you felt that under certain circumstances you were responsible, and under certain circumstances not?

Admiral BENSON. Yes.

The CHAIRMAN. That was your construction of the act?

Admiral BENSON. Yes; but in any case I was responsible under the Secretary of the Navy.

The CHAIRMAN. In all cases?

Admiral BENSON. In all cases.

The CHAIRMAN. You were responsible to make recommendations to the Secretary?

Admiral BENSON. Yes.

The CHAIRMAN. In all cases?

Admiral BENSON. Yes.

The CHAIRMAN. And if your recommendations were not followed then the Secretary assumed responsibility?

Admiral BENSON. He became responsible; yes, sir.

The CHAIRMAN. In that matter of having the vessels we had fully in a state of preparedness, did you make any such recommendations to the Secretary?

Admiral BENSON. I could not answer that question.

The CHAIRMAN. In considering the relative weight of the metal in the broadsides of two opposing fleets, with scouts and screening vessels and so forth, if one of these fleets has these adjuncts and the other has not, are the chances even?

Admiral BENSON. They are not even.

The CHAIRMAN. You are familiar with the details of the battle of Jutland?

Admiral BENSON. In a very general way; yes, sir.

The CHAIRMAN. Do you not think that the result of the battle emphasizes the necessity of scouts, submarines and planes and all means of quickly getting the signaling information to the commander in chief?

Admiral BENSON. It does.

The CHAIRMAN. Very clearly?

Admiral BENSON. Yes.

The CHAIRMAN. The battle of Jutland was fought in 1916?

Admiral BENSON. I think it was, yes.

The CHAIRMAN. Do you recall the date?

Admiral BENSON. The 18th of May, I think it was; somewhere along in May.

The CHAIRMAN. May, 1916?

Admiral BENSON. Yes.

The CHAIRMAN. Nearly a year before we went into the war?

Admiral BENSON. Some time; yes, sir. We went into the war in April, 1917.

The CHAIRMAN. Nearly a year, I say.

Admiral BENSON. Yes.

The CHAIRMAN. In the year following the battle, and before we entered the war, could we not have supplied our fleet with some of these important auxiliaries?

Admiral BENSON. I think we could. We might have gotten more destroyers. By taking extraordinary steps we could have, possibly. Hardly, though, within a year. That would have been pretty difficult.

The CHAIRMAN. At least we could have gotten all our available vessels ready for such service, could we not?

Admiral BENSON. Yes.

The CHAIRMAN. Do you know whether the Secretary of the Navy or the Navy Department made any determined efforts to equip our fleet with those auxiliaries between 1915 and 1917?

Admiral BENSON. I think an effort was made. I have forgotten what word you used to qualify it.

The CHAIRMAN. I said any determined effort.

Admiral BENSON. A determined effort. Only in a normal way; not in an unusual way.

The CHAIRMAN. No special stress was laid on the importance?

Admiral BENSON. I do not think any special stress was laid on it.

The CHAIRMAN. Even after the battle of Jutland?

Admiral BENSON. I do not think so.

The CHAIRMAN. Well, why not? You were familiar with the details of that battle?

Admiral BENSON. If you remember, Mr. Chairman, the bill that was passed in 1916, our building program which was adopted, I think

possibly would be an answer to that. Possibly I was mistaken in saying that no special effort was made, because I think that that building program that was adopted in 1916 shows that an effort was made to begin to prepare the fleet more strongly.

The CHAIRMAN. You mean the 3-year program?

Admiral BENSON. Yes.

The CHAIRMAN. It was not assumed that that would be ready for any immediate use?

Admiral BENSON. No; of course not.

The CHAIRMAN. And no special attempt was made——

Admiral BENSON. But I think that that bill was gotten through probably in, you might say, the normal way of carrying appropriations through.

The CHAIRMAN. Was work commenced on the construction of ships under that program at all?

Admiral BENSON. My impression is that it was begun as quickly as the plans and everything could be put in shape for it. That is my recollection now.

The CHAIRMAN. As a matter of fact, the construction has not yet been completed, has it?

Admiral BENSON. No; but a great deal of it was started, Mr. Chairman, and stopped after we actually got into the war and had to use all of the facilities for building destroyers and that type of vessel.

The CHAIRMAN. Yes; and very properly.

Admiral BENSON. Yes.

The CHAIRMAN. But everything was not done to speed up their program, and in fact it was not done?

Admiral BENSON. No; but I think that an effort was made, whether it was particularly urgent or not. I do not recall that it was particularly urgent, but an effort was made to get the thing going as quickly as possible.

The CHAIRMAN. But no special effort was made to provide ships under that plan?

Admiral BENSON. No; I do not think any special effort was made, as I recall it.

The CHAIRMAN. Was it not plain to you in 1915 and 1916, and especially after the battle of Jutland, that the people of Germany relied largely upon the submarine campaign to win the war by starving England and France?

Admiral BENSON. Yes, sir; I think it was.

The CHAIRMAN. Then why, if there was any danger of our getting into the war, did we not prepare to build antisubmarine craft?

Admiral BENSON. Well, as I say, the only answer I can give to that is the building program of 1916.

The CHAIRMAN. Yes; but that was not a special building program for antisubmarine craft in case we should get into war with Germany, was it?

Admiral BENSON. Well, it was considered at that time that those were the proper steps to be taken. At least, I can not recall—I understand that what you want me to state is whether we tried to do something in excess of what that bill indicated. I can not recall.

The CHAIRMAN. Whether you tried to do something particular in reference to antisubmarine craft?

Admiral BENSON. I say that the only answer to that situation is that building program of 1916.

The CHAIRMAN. And that was clearly not for immediate emergencies?

Admiral BENSON. No; but no one could tell at that time how soon we would be drawn into it. That, in itself, was going a good way toward the preparation. I think there was a general feeling at that time, possibly throughout the country, that we would not be drawn into the war, as I recall the general condition of the country at that time.

The CHAIRMAN. After the spring of 1916?

Admiral BENSON. I think so. The election took place in the fall of 1916, and the voice of the people seemed to indicate that they did not want war and did not expect it.

The CHAIRMAN. The gratitude for keeping us out of war?

Admiral BENSON. Yes.

The CHAIRMAN. Was it not evident that England's fleet, together with our own battleship forces, would hold the main German fleet, and that we could best contribute by putting down the submarine menace?

Admiral BENSON. I beg your pardon; will you repeat that?

The CHAIRMAN. I say was it not evident that England's fleet, together with our own battleship forces, could successfully hold the main German fleet—

Admiral BENSON. Yes.

The CHAIRMAN. And that we could best contribute our part in the war by helping to down the submarine menace?

Admiral BENSON. Yes; as far as that particular phase of it.

The CHAIRMAN. Were you a member of the Joint Army and Navy Board?

Admiral BENSON. Yes.

The CHAIRMAN. Did the board meet frequently and consider general action, offensive and defensive, in the months immediately preceding the declaration of war?

Admiral BENSON. We did meet, but as I recall it, very few of our meetings referred to matters immediately connected with the preparation for—it is almost impossible for me to recall just what we did treat of. I remember finally getting permission to have the General Army and Navy Board reconvene; but it is really impossible for me now to recollect just what subjects we took up or what particular line of policy we pursued. It would be impossible for me to tell you at this time, sir, just what we did; but I remember that I succeeded in getting permission to have the board reconvene.

The CHAIRMAN. How do you mean, permission to have the board reconvene?

Admiral BENSON. Well, an order had been given to stop the meetings of the board for a while on account—

The CHAIRMAN. When was that?

Admiral BENSON. That was before I became Chief of Naval Operations. There were certain things that I do not know now just led up to it, but I know that it had not met for a long time, and after I became Chief of Naval Operations there were certain questions that we had to discuss. For instance, take the question of defensive areas for mining of harbors and channels on our coast. That is one

thing we took up; the question of just who would control the mine fields; and certain things in regard to the laying down of the mine and the character, and where one service would let go and the other take up, were considered.

The CHAIRMAN. That was the part that had to do with the cooperation between the Army and Navy?

Admiral BENSON. That was the Joint Army and Navy Board?

The CHAIRMAN. A very important board, was it not?

Admiral BENSON. Yes.

The CHAIRMAN. How were the meetings of that board called?

Admiral BENSON. We were usually called by the civil member of the board, and the subjects were drawn up and different papers were assigned to the different members of the board—a sort of subcommittee arrangement.

The CHAIRMAN. At the time you became Chief of Naval Operations who was chief officer of that board?

Admiral BENSON. Admiral Dewey.

The CHAIRMAN. Admiral Dewey?

Admiral BENSON. Yes.

The CHAIRMAN. And you say that special permission was given after you came in—

Admiral BENSON. Yes; to revive the meetings.

The CHAIRMAN. Was that at your instigation?

Admiral BENSON. As I recall, it was.

The CHAIRMAN. Did you hold meetings thereafter frequently?

Admiral BENSON. We did, more or less so; but I think the meetings were called after a sufficient length of time had elapsed to allow the different subjects to be discussed by the different subcommittees. When they reported that they were ready to submit reports, meetings were called.

The CHAIRMAN. Do you recall any action taken pursuant to the recommendation of that board?

Admiral BENSON. No; I do not.

The CHAIRMAN. Would it not have been possible for this joint board, in conjunction with the General Board and the Office of Operations, to have inaugurated plans for complete and proper coordination of the Army and Navy for naval warfare, and ready for immediate effect, if this board had studied and considered thoroughly this important question?

Admiral BENSON. It would.

The CHAIRMAN. But it was not done?

Admiral BENSON. No, sir. I say, a complete plan. No; I think the answer is correct; a complete plan gotten up. The joint action was not gotten up.

The CHAIRMAN. After you became Chief of Operations, on the whole were the meetings of this board encouraged or discouraged by the Secretary?

Admiral BENSON. I think after they were once revived it was left entirely to the board as to how often they would meet and the subjects they would take up.

The CHAIRMAN. There was no discouragement?

Admiral BENSON. No, sir.

The CHAIRMAN. Simply nothing ever was done?

Admiral BENSON. I do not think there was ever any discouragement.

The CHAIRMAN. Were you ever asked as a board to take up any important matters by the Secretary?

Admiral BENSON. I do not think so.

The CHAIRMAN. As a general thing, in warfare do you advocate the offensive or the defensive?

Admiral BENSON. The offensive, decidedly.

The CHAIRMAN. Do you not think that it was important for us to assume a quick, determined offensive against Germany in this war?

Admiral BENSON. I think after we found out what was the best way to do it we should have; yes, sir.

The CHAIRMAN. Do you think we were in any great danger of attack from Germany on this side after the Battle of Jutland?

Admiral BENSON. Not until war was declared.

The CHAIRMAN. After war was declared?

Admiral BENSON. After war was declared I felt very strongly we were in danger of attack by submarines—the only way he could attack us.

The CHAIRMAN. By many submarines?

Admiral BENSON. Well, possibly a half a dozen. I did not think they would send a very strong force over, but I thought they would unquestionably send some; and even a half a dozen, not knowing where they would strike on the long length of our coast, was, in my opinion, a very severe menace.

The CHAIRMAN. Could we not have been informed of the start of the German submarines?

Admiral BENSON. Up to a certain extent, we could. The information we got, as a rule, was very good.

The CHAIRMAN. And you expected that they would attack us over here?

Admiral BENSON. I did. I felt that the *U-53* that came into Newport the summer before, was a pathfinder, and unquestionably one of the first things that would happen——

The CHAIRMAN. And you felt at the outbreak of the war that the first thing for us to do was to protect ourselves against this attack by German submarines?

Admiral BENSON. Yes.

The CHAIRMAN. And at any time during the war they could have done the same thing?

Admiral BENSON. They did, later on; but of course they could have done it at any time.

The CHAIRMAN. And did you change your opinion as to the best thing that we could do, about concentrating our forces here to meet them, or sending our forces abroad?

Admiral BENSON. I felt we should be always prepared on this side. I felt that my duty as Chief of Naval Operations was to safeguard our own coasts and our own interests, which I tried to do.

The CHAIRMAN. That first we should keep our coasts and interests safe; and, second, help out on the other side?

Admiral BENSON. I felt it would be this way—that we should be first able to protect our own coasts and interests, and then do everything we could to help them on the other side.

The CHAIRMAN. After July 1, 1917, do you think we were very adequately prepared on this side to protect ourselves against German submarines?

Admiral BENSON. I thought we were fairly well prepared to do so.

The CHAIRMAN. Even after sending ships abroad?

Admiral BENSON. Yes. By that time we had gotten a lot of yachts and other vessels in condition, and our nets were extended so that I thought we were fairly well protected against them. We also were in a position to protect against them in all our harbors.

The CHAIRMAN. You think that yachts and small vessels of that kind are an adequate protection against submarines?

Admiral BENSON. I do not think they are adequate. I think, under the circumstances, with the number that we had, we could have safeguarded our harbors.

The CHAIRMAN. Did we not, as a matter of fact, change our policy about protecting this coast and send over all of the forces, later on in the summer of 1917, that we possibly could?

Admiral BENSON. When we were prepared to meet the situation that might arise. Of course, as the situation became more serious and we had the battleship fleet in the Chesapeake Bay and the York River, and our nets were in better position to protect them, I did decide that it was worth while to take a little more chances than we had been taking, and took them. For instance, I ordered the fleet to go to sea without protection, because I felt that it was so important that the fleet should be kept ready and in fighting trim, that I assumed that responsibility myself.

The CHAIRMAN. Where were the nets used?

Admiral BENSON. The nets were used down in Chesapeake Bay—at the entrance to Chesapeake Bay.

The CHAIRMAN. As protection for the fleet?

Admiral BENSON. For the protection of the fleet. They were used across the mouth of the York River, at Newport, at Boston, and they were used in the Delaware and at New York, and in nearly all of our ports.

The CHAIRMAN. Were they used to such extent that no submarine could have gotten by them in any such plan?

Admiral BENSON. I do not think so. I do not think you can stop submarines with nets. But I think it was the best protection we had, and our nets were patrolled, and I think that between the patrol and the net it would have been difficult for them to get through.

The CHAIRMAN. We had no airplane protection during the summer of 1917?

Admiral BENSON. We did not have to have protection.

The CHAIRMAN. After our destroyers had been sent largely over to the other side, practically the only protection we had against them was what we could get from these nets, and——

Admiral BENSON. We always kept some destroyers over here.

The CHAIRMAN. And a few yachts?

Admiral BENSON. Yes; and we depended on them. And, as I say, we always kept some destroyers, and we had the small craft to assist them, and the nets.

The CHAIRMAN. And when the submarines finally came over in 1918 they did not do a great deal of damage on this coast, did they?

Admiral BENSON. They did not; and I will say that when the final charts were given of the mines that they had laid on this coast there was only one bunch, I think, that we had failed to locate very promptly.

The CHAIRMAN. We had no very large force at work against them?

Admiral BENSON. We had a great many small vessels.

The CHAIRMAN. Small vessels?

Admiral BENSON. Yes. For instance, as soon as they appeared off the coast I sent 20 of the 110-foot destroyers right down there. They came out of New London and around Montauk Point with listening devices, and after that they rarely got inside of the 100-fathom curve—I mean the German submarines. I think the coast was pretty well guarded at that time against submarines.

The CHAIRMAN. Do you think the coast was pretty well guarded during the first three or four months of the war?

Admiral BENSON. I think fairly well. Not as well guarded as I would have liked to have had it, but it was fairly well guarded. There is a point there, Mr. Chairman, that possibly, in justice to what has been said, I ought to bring out. About the 10th or 11th of April—I think it was about that date, but before that, before we entered the war—we were informed that the British would send a vice admiral and that the French would send a rear admiral to this country, who were then cruising in the West Indies, to consult with our board as to what we should do to help them out. They came here, and I, with the commander in chief of the Atlantic Fleet, met them at Hampton Roads, and we had a conference there on the 10th or 11th of April. That was a few days after we entered the war. And then they came to Washington and we had another conference here with the Secretary and Assistant Secretary and members of the General Board. They outlined in pretty definite terms what they would like us to do.

Vice Admiral Browning had not been very long from the North Sea, commanding a squadron in the North Sea.

The French admiral, I do not know how long he had been overhere.

They had very definite ideas as to what they would like us to do, which they outlined, and we immediately agreed to that.

For instance, as you know, there were raiders adrift at that time, and they particularly wanted us to relieve the British vessels on our east coast. We agreed to take a line, I think it was 50 degrees of west longitude, from the extreme northern limit to join just north of the Windward Islands, taking in the Virgin Islands, and then coming to the westward across the Caribbean, to the boundary between Panama and Colombia, and we were to be responsible for that area, completely, and we were to hold cruisers in readiness to pursue and attack any raider that might appear in the North Atlantic or in the Gulf.

At the same time we agreed to take an area that, as I recall the limits, ran along the fifth degree of south latitude to some distance off the Brazilian coast, then paralleling the coast down off the mouth of the Rio de la Plata. We sent a force down there for that purpose.

In addition, the British asked us to send two destroyers to the other side, principally for the moral effect, as showing the flag of the United States with the Allies.

The CHAIRMAN. That was about what date?

Admiral BENSON. That was, I think, on the 11th of April, five days after we had declared war.

The CHAIRMAN. And on substantially the same date you received a telegram from Admiral Sims showing the opinion on the other side, did you not?

Admiral BENSON. He sent one about that time—the 13th, I think.

The CHAIRMAN. Direct from the British?

Admiral BENSON. From the British headquarters; yes.

The CHAIRMAN. So that it was evident that the people on the other side did not take the view taken by Admiral Browning at this meeting, which was that we should keep up a defensive on this side principally?

Admiral BENSON. I did not get that view.

The CHAIRMAN. You said we were told to send a couple of destroyers over for the moral effect?

Admiral BENSON. Yes; but we only got this message from Sims. I did not assume that that was the combined intelligence of the British Admiralty, by any means, sir.

The CHAIRMAN. It was the general result of the findings of our representative over there, who was right in touch with the British admiral.

Admiral BENSON. He had only been there a few days, I think; not over 48 hours, sir.

The CHAIRMAN (continuing). Saying that it was a very acute opinion over there?

Admiral BENSON. I did not so accept it, and I still do not, sir. I differ with you in regard to that.

The CHAIRMAN. Well, we will come to that later on. I will have some further questions about that. But you do think that in warfare it is important to assume the offensive rather than the defensive?

Admiral BENSON. Absolutely.

The CHAIRMAN. And defending an area over on our own east coast and down as far as the Caribbean would be really a form of defensive warfare, would it not?

Admiral BENSON. That would.

The CHAIRMAN. Assuming that there were no German vessels there at the time?

Admiral BENSON. That was defensive warfare.

The CHAIRMAN. And you were in favor of an offensive?

Admiral BENSON. I was in favor of the offensive as a principle.

The CHAIRMAN. Then do you not think it would have been strategic to assume the offensive rather than the other kind?

Admiral BENSON. Not under those conditions; no, sir. I think we did exactly what was the right thing to do at the time, with what we had. As a principle in warfare, I believe in active offensive warfare. This was not altogether our war. The Allies had been in it for some years, and they had, or should have had, very definite policies and plans upon which they were conducting war, and we were going in there to join with them, and I do not think we made any mistake at the time. I think we did exactly the right thing under the circumstances.

The CHAIRMAN. Then you would say we were justified in assuming the defensive?

Admiral BENSON. As we did.

The CHAIRMAN. Practically, instead of the offensive?

Admiral BENSON. Under all the circumstances, the defensive measures we took I think were quite necessary and quite proper.

The CHAIRMAN. And that we should pay the principal attention to the defensive outlined by Admiral Browning and the French admiral?

Admiral BENSON. No, sir; exactly, I do not think that.

The CHAIRMAN. I asked your——

Admiral BENSON. I say, we should have complied with their request as we did, except that they asked us for two destroyers to be sent to the other side, and we sent six instead of two.

The CHAIRMAN. Yes; but you also got their instructions from them besides that, or suggestions——

Admiral BENSON. No; we did not get instructions from them.

The CHAIRMAN. No; you could not get instructions, but you did get suggestions. And that is what Admiral Sims was over there to get, to find out and send you.

Admiral BENSON. He was sent over there to get information for our consideration, and such action as we thought best to take.

The CHAIRMAN. Yes; and the information that he got was fairly authoritative, was it not?

Admiral BENSON. I assumed that it was.

The CHAIRMAN. And he was sent over for the purpose of getting authoritative information?

Admiral BENSON. Of getting information; exactly.

The CHAIRMAN. Then your reasons for assuming the attitude that we did were that we had to patrol this coast, had to hold this coast as against possible attacks by submarines, and had to comply with British requests for patrolling everything west of 50; is that right?

Admiral BENSON. Yes; that we should comply with their requests, which we did.

The CHAIRMAN. Do you think that Germany would have been so short-sighted as to send more than a very few submarines over here at the beginning of the war, 3,500 miles from her coast?

Admiral BENSON. As I say, she might have sent half a dozen, and I think it would have been a wise thing for her to do.

The CHAIRMAN. Was it not her policy to make the best expenditure of her ammunition by keeping her submarines as near home as possible?

Admiral BENSON. I think she would have gotten much better results, or under ordinary circumstances she would, if she had sent half a dozen over to operate on our coast. Of course when she did send them, it had very little effect, because it did not slow up the movement of our troops or any others of our vessels.

(Thereupon, at 12 o'clock m., the subcommittee adjourned until to-morrow, Wednesday, May 5, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

WEDNESDAY, MAY 5, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235 Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

TESTIMONY OF ADMIRAL W. S. BENSON—Resumed.

The CHAIRMAN. The committee will come to order. Admiral Benson, what was the date when the first German submarine came to our coast after the commencement of the war?

Admiral BENSON. I think it was the 21st or the 25th of May.

The CHAIRMAN. That is the date when it was first sighted on this side?

Admiral BENSON. Yes, when it first appeared off the mouth of the Delaware.

The CHAIRMAN. Were we not warned; did we not receive a considerable warning before it came?

Admiral BENSON. We got a message from Admiral Sims that one would appear off the coast in that vicinity about that time.

The CHAIRMAN. And how long before it appeared did you get the message from Admiral Sims?

Admiral BENSON. I could not say as to that.

The CHAIRMAN. Several weeks?

Admiral BENSON. It was several weeks; possibly three weeks.

The CHAIRMAN. Would we have been justified in keeping a large number of our Navy in home waters for fear of having submarines or a few raiders, when the situation was as critical on the other side as it was at the beginning of the war?

Admiral BENSON. Only a sufficient number to safeguard the situation.

The CHAIRMAN. And you have already stated, have you not, that our first duty was to protect our own coast?

Admiral BENSON. I say to safeguard the situation on this side. I except the fleet from that, of course—the main fleet. I think the main fleet should have been kept here, whether it was necessary to safeguard the coast or not.

The CHAIRMAN. You do think that the main fleet should have been kept here?

Admiral BENSON. I do.

The CHAIRMAN. In its entirety?

Admiral BENSON. Yes; practically in its entirety.

The CHAIRMAN. Could not the second-line battleships, with nets, mines, and a few patrol vessels properly distributed have protected us from grave danger from sudden attack?

Admiral BENSON. The object in keeping the fleet on this side was not primarily to protect the coast from a fleet attack. It was primarily to hold a proper reserve, which was not needed elsewhere, in case it should become necessary later on.

The CHAIRMAN. For instance, do you mean in case a German raider should break through the English fleet?

Admiral BENSON. In case the German should have defeated or driven off the sea the British fleet.

The CHAIRMAN. Was there much prospect of that?

Admiral BENSON. There was not much, but there was some—sufficient to warrant the action taken.

The CHAIRMAN. Even if they could have helped greatly on the other side you felt in view of this possibility of the German fleet coming over that we were justified in keeping our main battle fleet over here?

Admiral BENSON. It would depend on the extent to which they were needed on the other side. The situation was such that it was not felt that they were needed, but that the older battleships might have been of service in attacking some of the enemy's ports in the North Sea and the British Channel. We would have readily acceded to something of that kind.

The CHAIRMAN. The older battleships?

Admiral BENSON. The older battleships.

The CHAIRMAN. But not the dreadnaughts?

Admiral BENSON. But not the dreadnaughts.

The CHAIRMAN. And you felt they were in a better position based over here than based over on the other side, if, for instance, they were needed to go?

Admiral BENSON. Absolutely better. There was absolutely every reason that they should remain on this side. The logistics of the situations made it almost absolutely necessary that they should remain on this side.

The CHAIRMAN. And if the British fleet was to have another engagement with the German fleet you felt that it was of more value to have our fleet in these waters in case the British fleet was beaten by the German fleet than it would have been to have had them over there to participate in the action on the other side?

Admiral BENSON. Taking the situation as it was, I think it would have been better.

The CHAIRMAN. Why?

Admiral BENSON. Well, because in any problem of that kind you have got to weigh all of the various elements and the conditions and draw your conclusions as to what would be the best solution of the problem and act accordingly. As I said just now, the logistics of the situation made it absolutely ill-advised to send any of our battleships to the other side unless they were absolutely necessary.

The CHAIRMAN. The committee, Admiral, is not made up of technical naval experts, and I do not think we understand exactly what you mean by the logistics of the situation.

Admiral BENSON. Why, supplying them with fuel and with provisions and keeping them in proper condition of repair, and in addition to that it would have been necessary to safeguard them with destroyers and craft of that kind; to put them where they would have been properly looked out for.

The CHAIRMAN. Do you not think that the moral effect on Germany would have been very great if we had sent our fleet over at the very beginning of the war?

Admiral BENSON. I do not; no, sir.

The CHAIRMAN. Do you think that the moral effect on the Germans of sending our troops over was very great?

Admiral BENSON. Yes.

The CHAIRMAN. Then why would not the moral effect have been great of sending the fleet over?

Admiral BENSON. It was an entirely different question. The relative force and conditions of the problems were entirely different.

The CHAIRMAN. Would it not have indicated to Germany that we were going very extensively into the war?

Admiral BENSON. I do not think Germany needed any greater proof than she had.

The CHAIRMAN. Not of having our troops go over?

Admiral BENSON. I mean of our troops going over, and what we were doing from day to day.

The CHAIRMAN. Very few of our troops were going in the first few months of the war.

Admiral BENSON. Simply because it was difficult to get them over; and they were not ready to go. But they knew they were coming; and then we were lending money to the Allies and we were giving them money and all the assistance that it was possible to give them under the circumstances. I do not think there was any question.

The CHAIRMAN. At the time it was difficult to get them over?

Admiral BENSON. I mean the shortage of vessels to carry them; but the principal reason was because the troops were not ready to go. When they were ready they were taken over practically as fast as they were ready.

The CHAIRMAN. There have been some discrepancies in the testimony of witnesses about that.

Admiral BENSON. There is not any question in my mind, Mr. Chairman, in regard to that.

The CHAIRMAN. Then you know all about the military situation in the summer of 1917?

Admiral BENSON. Not all about it, no; but I know a good deal.

The CHAIRMAN. Do you know just what troops were ready and what troops were not ready?

Admiral BENSON. No, but I know that as fast as we were called upon to take new troops over we took them over.

The CHAIRMAN. As fast as you were called upon to take them over?

Admiral BENSON. Yes, sir.

The CHAIRMAN. Called on by the War Department?

Admiral BENSON. Yes, by the War Department.

The CHAIRMAN. Was there any consultation with the Bureau of Operations or with the Navy Department, so far as you know, about this question of taking the troops over?

Admiral BENSON. There was quite a long—it took some time to settle the question as to whether the Navy would take them, and whether they would transport them themselves, and it was some little time, and it developed in settling that question. I had several conferences, I think, with Gen. Bliss, who was then Chief of Staff, and it was finally settled between Gen. Bliss and myself, as I recall it. I think Capt. Pratt in his testimony went over that subject pretty thoroughly, if I remember rightly.

The CHAIRMAN. And do you say that in all cases the Navy was ready as soon as the troops were ready?

Admiral BENSON. That is my recollection, that the troops were never kept waiting by the Navy.

The CHAIRMAN. That is, by the Navy as far as guarding ships were concerned.

Admiral BENSON. As far as taking them over when they were ready to go; they were taken over as fast as they were ready, to the capacity of every ship we had.

The CHAIRMAN. Was there not some delay about the Navy taking over the handling of the transports?

Admiral BENSON. There was some delay, caused by the discussion that went on between the two departments as to just who would handle the ships and who would not. Just how long that was I can not say. There was some delay. I do not think it was unusual, and I do not think that that delay materially interfered with the carrying of the troops over.

The CHAIRMAN. But you personally had no definite knowledge about when the troops were ready or were not? You were advised about their going over?

Admiral BENSON. Not definitely; no. Only in a general way, that as fast as the situation developed it was handled.

The CHAIRMAN. Considering the blockade of the main German fleet, was not the situation very favorable to an offensive campaign by us against the German submarine at its submarine base?

Admiral BENSON. I think that the bases should have been attacked, and I so urged while the war was in progress; and one of my conferences with the British Admiralty in London in 1917 was to urge more active operations against the bases of the submarines. But it was an operation that had to be not only a concerted action, but the principal part of it would have been necessary to have been taken by the Allies, we simply to add our part to it; and all during the summer I urged active operations of that kind and could never understand why we did not get definite plans, etc., from the other side as to how some such operation could be carried out. While in London I agreed with Admiral Jellicoe on a plan, a very confidential plan, that was to be carried out later on, in which I not only volunteered to place our ships but insisted that our ships should be placed there.

I found, for instance, when I went to the fleet in November, 1917, that there seemed to be some doubt in Admiral Beatty's mind particularly as to whether he could call on our ships that were over there. There was not apparently an understanding that he could call on our destroyers at Queenstown and any other vessels we had over there to assist him in case of a general engagement, if it became necessary. I was very much surprised to find that condition, and stated

to him that not only if he did not call for them we would be disappointed, but it would be, in my opinion, an unpardonable offense against the American Navy. But that was the condition that I actually found, that they were uncertain whether or not they could actually use them.

The CHAIRMAN. Why was there such uncertainty?

Admiral BENSON. I do not know. We had our representative there. I supposed that the relations were such that those questions had been settled; but they had not been settled.

The CHAIRMAN. You mean that they should have been able to call on our ships without our consent?

Admiral BENSON. He said he did not know, and he was a little anxious to have positive assurance that he could call on them.

The CHAIRMAN. Was there ever any question of his calling on our ships without our consent? Did he have the direct right to call on our ships to take part?

Admiral BENSON. Only through our representative in London, sir; until those that joined later on. When the battleship division joined, then, of course, they were placed under his orders.

The CHAIRMAN. When they joined they were actually under his orders?

Admiral BENSON. Yes; they were actually under his orders.

The CHAIRMAN. But until that time——

Admiral BENSON. If he had wanted to have the use of the destroyers at Queenstown he would have had to simply call on Admiral Sims through the Admiralty, to get them.

The CHAIRMAN. But he would have to call on Admiral Sims?

Admiral BENSON. Yes, sir.

The CHAIRMAN. Did he tell you that he had called on Admiral Sims?

Admiral BENSON. No, sir; he did not. He said that he did not exactly know what the situation was, whether he could do it or should do it.

The CHAIRMAN. That is, the point had not been explained?

Admiral BENSON. It had not been determined over there, as to just what the situation should be.

The CHAIRMAN. This is in the case of that particular plan you referred to?

Admiral BENSON. No, sir; I am not speaking of a particular plan.

The CHAIRMAN. You spoke of a very secret plan that you had for attacking the submarine bases.

Admiral BENSON. No, sir; this was not that plan. I only mentioned that——

The CHAIRMAN. Did you find any friction between our forces over there and the British forces?

Admiral BENSON. None at all.

The CHAIRMAN. Between our forces and the British forces as to cooperation?

Admiral BENSON. None at all.

The CHAIRMAN. Did you find that there was any fault being found with Admiral Sims as to the way that he was handling the American forces?

Admiral BENSON. None at all; on the contrary.

The CHAIRMAN. But you say——

Admiral BENSON. I say that I found that condition to exist.

The CHAIRMAN. That was when?

Admiral BENSON. In November, 1917.

The CHAIRMAN. That they were not able to tell just to what extent they could call on our forces?

Admiral BENSON. That he did not know to what extent he could call on our forces for the destroyers, etc., that were over there.

The CHAIRMAN. Was that because there had been no occasion to call on our forces for any such comprehensive plan?

Admiral BENSON. Whether that was the occasion or not, I can not say. As I remember the situation, there had been no particular occasion that required it, but the question came up in a general conference with Admiral Beatty, when I was with him with the Grand Fleet.

The CHAIRMAN. Would you say that it should have been thoroughly understood beforehand?

Admiral BENSON. I think it should have been.

The CHAIRMAN. Let me finish my question. Would you say that it should have been thoroughly understood beforehand that our forces would go in and cooperate on any plan that was put up, regardless of whether we approved the plan or not?

Admiral BENSON. Well, not at all, sir.

The CHAIRMAN. Then I can not see what——

Admiral BENSON. I do not wish to say anything of the kind. On the contrary, we instructed Admiral Sims that in case of any specific plans in which our forces were to be used, we must know what the plan was and have an opportunity to judge of it before our forces were put in it.

The CHAIRMAN. Precisely.

Admiral BENSON. Yes.

The CHAIRMAN. Then your instructions were really the cause of their not knowing just to what extent they could count on our forces.

Admiral BENSON. No, they were not.

The CHAIRMAN. Why not?

Admiral BENSON. Because this was not the question of a specific plan, but——

The CHAIRMAN. But you said there was a specific plan.

Admiral BENSON. No, I can not agree with you.

The CHAIRMAN. You referred to it in connection with Admiral Jellicoe; you said that you had with him a specific plan.

Admiral BENSON. I was speaking of the use of the vessels.

The CHAIRMAN. That is what brought the question up?

Admiral BENSON. That is what brought it up here.

The CHAIRMAN. That is what brought the question up over there?

Admiral BENSON. No, it was not what brought the question up over there.

The CHAIRMAN. What was it that brought it up?

Admiral BENSON. The general conference I had with Admiral Beatty. In discussing the general situation over there he brought up this question as to whether—I forget, now, whether I brought it up myself—if he felt satisfied with the condition generally, or whether he brought it up; but the question was discussed between us, and that situation developed.

The CHAIRMAN. And Admiral Beatty made a complaint to you? Admiral BENSON. Not a complaint, no; not a complaint, I do not—

The CHAIRMAN. Well, what was it about it?

Admiral BENSON. That he was uncertain in his mind as to whether he would be justified in calling on Sims for the use of the destroyers in the case of the German fleet coming out and an engagement being imminent, and he wanted their additional assistance.

The CHAIRMAN. In any event he would have had to have asked Admiral Sims, and Admiral Sims would have had to ask the department, would he not?

Admiral BENSON. No, I do not think Admiral Sims would have had to ask the department, under the situation, if that had been the case, where an engagement was imminent. Our forces were sent over there to take such part as they could, in cases where they were necessary.

The CHAIRMAN. Have you any doubt that Admiral Sims would have given him that assistance?

Admiral BENSON. I have not the slightest bit of doubt.

The CHAIRMAN. Then the fault that you find with Admiral Sims in the matter is that he had not specifically agreed that in the last crucial moment our forces would go right in with them regardless of any instructions at all?

Admiral BENSON. No, sir—

Senator PITTMAN. I object to that question.

The CHAIRMAN. I am putting that in the nature of a question.

Senator PITTMAN. And he is going to answer it directly, all right, but I am going to protest here against charging the Admiral with finding fault with Admiral Sims when there is absolutely no statement of that kind on his part.

The CHAIRMAN. Well, it is a criticism, is it not, Admiral?

Admiral BENSON. It was simply an explanation of the situation as I found it over there.

The CHAIRMAN. If there was a fault on the part of Admiral Sims in the matter, the committee would like to have explained what fault there was.

Admiral BENSON. I can not say whether it was Admiral Sims's fault or Admiral Beatty's. I am rather inclined to think that the British should have initiated the movement.

The CHAIRMAN. I will ask the stenographer to read my question, now.

(The question referred to was read by the stenographer as follows:)

The CHAIRMAN. Then the fault you find with Admiral Sims in the matter is that he had not specifically agreed that in the last crucial moment our forces would go right in with them regardless of any instructions at all?

The CHAIRMAN. Now will you answer that, Admiral?

Admiral BENSON. I have answered, to say that I have found no fault with Admiral Sims. I was simply explaining to the committee, or attempting to, the condition that I found, and as I stated, the fault was, I think, that there should have been an understanding in regard to that matter; but whether it should have been initiated by Admiral Sims or by the British Admiral, my own opinion is that it should have been initiated by the British.

The CHAIRMAN. Regardless of whether you are finding fault with Admiral Sims or not, will you answer that question?

Admiral BENSON. I thought I did answer it.

The CHAIRMAN. I asked you whether it specifically referred to the action that our Navy abroad would take in a very critical moment. In ordinary matters I take it that there was proper cooperation, was there not?

Admiral BENSON. Yes.

The CHAIRMAN. And they knew what they could count on from us.

Admiral BENSON. That is my complaint, that there was quite a cooperation——

The CHAIRMAN. But there was only a question in Admiral Beatty's mind as to what action the Navy would take in a case such as that to which you have referred?

Admiral BENSON. Yes. That is the point, as I understand it; if I catch your question.

The CHAIRMAN. Now, what was the reason for the British having this feeling of doubt about what we would do?

Admiral BENSON. I do not know of any reason.

The CHAIRMAN. Did they make any complaint to you about the lack of cooperation that we had shown, or about the small number of ships we had sent over?

Admiral BENSON. They did not. On the contrary, the information I got was the opposite. They thought that we had done very well indeed to send as many as we had sent, and they were delighted with the cooperation. Of course they wanted as many as they could get, but they thought that we had responded very generously.

The CHAIRMAN. What was the reason that they should have any question about what we would do in case of an engagement such as that to which you refer?

Admiral BENSON. Why, no; but it was a very natural thing that in going over the whole situation, the Admiral should have said, very naturally, "Well, now suppose"—as I said just now, I do not know just what brought it up, but suppose we were discussing destroyers and the shortage of destroyers; he might have said, "Now, in case the Germans should come out and we needed a great many more destroyers to go with the fleet, I am a little uncertain as to whether or not I should or could call on Sims for the destroyers at Queens-town." I think that is no complaint; it is a very natural question that should have come up, as many other questions came up during the conference we had, so as to have a full and clear understanding of the whole situation, and the forces engaged.

The CHAIRMAN. But you found no cases on the other side where there was fault finding with Admiral Sims and with the way in which he was conducting our forces over there, as far as cooperation was concerned?

Admiral BENSON. I found none in Great Britain; no.

The CHAIRMAN. You say that you found a feeling on the other side that we had sent over everything that was possible to send over.

Admiral BENSON. That was the impression I got.

The CHAIRMAN. I do not recall your exact words. That was the impression you got?

Admiral BENSON. Yes.

The CHAIRMAN. Who gave you that impression?

Admiral BENSON. I could not say. That would be impossible, Mr. Chairman, at this time. I talked with the various lords of the British Admiralty, with the first sea lord; I talked with a great many of their principal officers. We held a conference with the whole British cabinet in which Mr. Lloyd-George addressed the commission, of which at the time I happened to be the ranking member, and to whose address I had to respond, and the impression made on my mind—I can not quote the words, but that was the impression made on my mind, they felt that we had been very generous in the help we had sent.

The CHAIRMAN. It was a general impression made on your mind?

Admiral BENSON. Yes, sir.

The CHAIRMAN. You can not substantiate it by quoting any particular authority on this side.

Admiral BENSON. No; I can not.

The CHAIRMAN. What was the date that you went over?

Admiral BENSON. I reached there on the 7th of November; I reached the British port.

The CHAIRMAN. Prior to that time had Admiral Sims, at the request of the British Admiralty, or acting in conjunction with the British Admiralty, asked for some battleships to be sent over?

Admiral BENSON. Yes.

The CHAIRMAN. When was that?

Admiral BENSON. I can not give the date, as to when this request was made. It was made sometime before that. It was quite a good while before that. I have an idea that it was in July, but that is merely a guess.

The CHAIRMAN. It was first suggested, I believe, in his cable of the 11th, was it not?

Admiral BENSON. About the battleships? I do not think so, but I could not be certain.

The CHAIRMAN. I think the telegram of April 11 referred to certain battleships to be based on Brest.

Admiral BENSON. Yes; possibly so.

The CHAIRMAN. After you had reached the other side you found that it was advisable to send those ships over?

Admiral BENSON. Yes; I thought it was.

The CHAIRMAN. And you ordered the ships to be sent over?

Admiral BENSON. I then cabled home for them.

The CHAIRMAN. In view of the fact that you state that the authorities on the other side were well satisfied with the number of ships that we had sent over, and the kinds of ships that we had sent over, why did you give that order?

Admiral BENSON. Mr. Chairman, it is pretty hard to answer a question of that kind. I must say that I am trying my very best to give you honest answers to the questions you are putting to me, and I insist that the answers I have given have been such; and this thing of the battleships I do not think is one that differs from the reply that I have made.

The CHAIRMAN. Well, they wanted the ships over there?

Admiral BENSON. And I thought it would be advisable; and that, I do not think invalidates in any way the statement I have made, sir.

The CHAIRMAN. Well, they wanted the ships; Admiral Sims had recommended the ships; the ships had not been sent over; and yet

you state that they were satisfied and very much pleased with what we had done.

Admiral BENSON. I stated that they thought we had been very generous in the contribution that we had made.

The CHAIRMAN. Not as to battleships?

Admiral BENSON. I do think they were satisfied. I will go further and say, if I have not used the word, that they were satisfied; but they wanted some of them, and I do not think there is any inconsistency in the language I am using. I do not wish to make that distinction.

The CHAIRMAN. Do you think that they were satisfied with the battleships that we had not sent over?

Admiral BENSON. It is hard for me—

Senator PITTMAN. We would like to know when the date was when they asked for the battleships?

Admiral BENSON. April 14.

The CHAIRMAN. As I recall the testimony, it was first alluded to on April 11, and first requested in July.

Admiral BENSON. Yes; April 14.

The CHAIRMAN. April 14?

Admiral BENSON. On the 14th. [Reading:]

At present our battleships can serve no useful purpose in this area except that two divisions of dreadnaughts might be based on Brest for morale effect, against anticipated raids by heavy enemy ships in the Channel out of reach of the British main fleet.

That, I think, was the first suggestion about the matter at all, and it was not definitely recommended until July; July 21. [Reading:]

(Cablegram sent July 21, 1917. Serial No. 120.)

To Secretary of the Navy (Operations).

No. 120. Visited Grand Fleet 19th with Admiral Jellicoe for consultation with commander in chief. The result is that Admiralty requests that the four strongest coal-burning battleships with six destroyers be sent join Grand Fleet now Firth of Forth. Also that our submarines could be very usefully employed in antisubmarine campaign.

The reasons for this request is that five *King Edward* class must be placed out of commission and their place taken by four dreadnaughts to provide officers and gunnery and torpedo ratings for light cruisers, destroyers, submarines, etc., to be commissioned. Shortage of officers will be 400 after advancing reserve officers from motor boats, etc., to fleet. Our oil-burning battleships could not be supplied, and more than four would unduly increase burden on coal supply, and would necessitate additional screening vessels not now available.

The conference agreed that moral effect would be very great; also mutual benefit of exchange of ideas and methods. The intelligence service thereby created between the two fleets would be superior to any service which exists or could be established. Carefully selected expert staff should be sent. Also recommend temporary detail representative our commander in chief on Admiral Beatty's staff.

Sms.

The CHAIRMAN. Then you would not say that they were entirely satisfied with what we had done about the battleships?

Admiral BENSON. To that extent. In addition to what we had sent they wanted the battleships. There can be no question about that, sir.

The CHAIRMAN. Did we have an adequate air service in 1917?

Admiral BENSON. No; we did not.

The CHAIRMAN. Had not Admiral Fiske and the General Board advocated a division of aeronautics in 1913?

Admiral BENSON. Admiral Fiske had had a good deal to say about it. I forget whether or not he had advocated a division or not; I could not say.

The CHAIRMAN. Was such a division ever established?

Admiral BENSON. Hardly a division. Well, under our organization it was a division. There was an officer in charge of it who had direct charge, and for that purpose sums were allotted; especially appropriated and allotted.

The CHAIRMAN. When was it first established?

Admiral BENSON. That I can not say, because I found it there when I came to Washington.

The CHAIRMAN. Was it later abolished?

Admiral BENSON. The division?

The CHAIRMAN. Yes.

Admiral BENSON. I do not think the division has ever been abolished. It was taken in hand——

The CHAIRMAN. You do not recall that it was established at one time and later abolished?

Admiral BENSON. I found it in existence when I went there.

The CHAIRMAN. In existence?

Admiral BENSON. Yes.

The CHAIRMAN. You do not know whether it had been abolished and then recreated?

Admiral BENSON. No, sir; I do not know.

The CHAIRMAN. Was it in operation after you came into the department?

Admiral BENSON. Yes; it was in operation, but in not a very large sense or a very efficient way. It was a very difficult situation to handle.

The CHAIRMAN. It had not been doing any effective work up to the time you came into the department?

Admiral BENSON. No; I would not say that it had not been. I think they had been making progress slowly, and we had, for instance, established a station then at Pensacola and there was an officer in charge of it, Capt. Bristol. I think he was in charge of it when I came to Washington and I think he was very energetic and tried to push the situation, and an effort was made generally to carry on the development that had already begun before I took charge of the office.

The CHAIRMAN. Do you know if that division had been in constant operation from the date when it was first started in the department up to the time you came in?

Admiral BENSON. No; I do not.

The CHAIRMAN. You had no knowledge whatever about that?

Admiral BENSON. Very little; not enough to answer your question satisfactorily; no.

The CHAIRMAN. Do you know whether they had prepared plans and data up to the time that you came in that were of value?

Admiral BENSON. I do not recall anything except the general estimates for the appropriations for building certain numbers, and I think the idea of the catapult had also been suggested, and the establishing, as I say, of a station at Pensacola; and the *North Carolina*, I think, was assigned to this particular purpose after I took charge of the office. But with the many problems that came up just

at that time it is really a little difficult for me to state just what was in existence and what was not, because I naturally attempted to connect everything up as soon as I could, and it was impossible for me to state just where that began or what I found in connection with this particular branch. The detailed history, if you want it, could be supplied, I take it, from the Office of Operations.

The CHAIRMAN. Will you refresh your memory on that matter, so that to-morrow morning you can give me some further information about it?

Admiral BENSON. If you will be good enough to tell me just what you want it to cover, Mr. Chairman.

The CHAIRMAN. I want to know the history of that division of aeronautics that was recommended by Admiral Fiske in 1913.

Admiral BENSON. Admiral McKean informs me that it is already in the record, and whatever is in the department I can get, if you wish me to do it.

The CHAIRMAN. Can you tell me on what pages of this record it is dealt with it?

Admiral McKEAN. I can get it for you. It is books 43 and 44 of the typewritten evidence. I think the history of aeronautics is in 44. I will have it up to-morrow morning, the whole business. A memorandum shows the history of that office from the day it was established.

The CHAIRMAN. Perhaps Admiral McKean can answer my question.

Admiral McKEAN. I can.

The CHAIRMAN. It was recommended by Admiral Fiske in 1913, was it not, to the General Board?

Admiral McKEAN. I do not know how complete the recommendation Admiral Fiske made was and what organization he recommended.

The CHAIRMAN. Admiral Fiske and the joint board, I mean.

Admiral McKEAN. I do not recall that they recommended an organization, but there was an organization with a director of aeronautics, Capt. Briscoe, and that functioned until early in March, 1916, when the director of aeronautics was sent to sea on the *North Carolina*, and aeronautics for the time being was put under my charge in material, by Admiral Benson. There was not any director during that time. The office was absorbed into material, temporarily. As soon as we got another officer trained, and as soon as we got a new organization shaped up, Capt. Irwin became again director of aeronautics, and the office was divided from material and given a separate existence.

The CHAIRMAN. But was it not in continuous operation from the time it started until 1916?

Admiral McKEAN. It was not under a director, no. It was operated in that way from March until about July, I think, when it was divorced from material again.

The CHAIRMAN. When was that?

Admiral McKEAN. March, 1916.

The CHAIRMAN. I am talking about before 1916. I asked you if it was not in continuous operation from the time of its creation up to that time?

Admiral McKEAN. Oh, yes; up to the spring of 1916 it was in continuous operation.

The CHAIRMAN. That was the information I wanted.

Admiral BENSON. Then you do not wish me to get anything, Mr. Chairman?

The CHAIRMAN. No; it is not necessary. Admiral Benson, you do not, however, know what stage of perfection it had reached prior to your coming in, at the date when you came into the office of the Chief of Operations?

Admiral BENSON. Not in detail. We had a certain number of machines, and flying was going on at Pensacola, and they were training flyers down there, and as I say, the *North Carolina* was assigned; but that was afterwards. I think she was assigned after I took the office. We tried to develop the catapult, that is to have it arranged so that the flyers could get away from the ships. I think I witnessed the first attempt, at Pensacola, myself.

The CHAIRMAN. In 1915 Capt. Bristol's estimates were cut from \$13,000,000 to \$2,000,000, were they not?

Admiral BENSON. I think it was from \$13,000,000 to \$2,000,000.

Admiral McKEAN. \$13,500,000.

The CHAIRMAN. From \$13,000,000 to \$2,000,000?

Admiral BENSON. Yes.

The CHAIRMAN. That was while you were Chief of Operations?

Admiral BENSON. Yes.

The CHAIRMAN. Who was it that cut these estimates, you or the Secretary?

Admiral BENSON. It was done at my recommendation.

The CHAIRMAN. At your recommendation?

Admiral BENSON. At my recommendation, yes.

The CHAIRMAN. What was the occasion for your recommending such a cut?

Admiral BENSON. Because I felt that with the facilities we had to work with, and the number of people that we had, that we could devote intelligently to that kind of work, we could not properly expend more than \$2,000,000 of the public funds; and because I felt that to increase the appropriations to that extent would be ill-advised—I mean, to the extent of thirteen and a half millions.

The CHAIRMAN. \$13,000,000, I thought it was, was it not?

Admiral BENSON. Or \$13,000,000; whichever it was. As a matter of fact, the General Board recommended \$5,000,000, and I think we got \$3,500,000.

The CHAIRMAN. Congress raised it to \$3,500,000?

Admiral BENSON. That is my recollection.

The CHAIRMAN. Did the Secretary pare down your estimate to \$2,000,000?

Admiral BENSON. That is my recollection, that he made the estimate of \$2,000,000.

The CHAIRMAN. That was in the fall of 1915?

Admiral BENSON. Yes; 1915, as I recall it.

The CHAIRMAN. At that time was it not evident that aeroplanes were bearing and would bear a considerable part in the war?

Admiral BENSON. Not as evident as it became later.

The CHAIRMAN. But still, evident, was it not?

Admiral BENSON. Yes; there was evidence that they might bear a decided part in it; but I do not think it was conclusive.

The CHAIRMAN. If that whole \$13,000,000 had been appropriated and if Capt. Bristol had been authorized to hasten preparations, would we not have had a larger air force in 1917?

Admiral BENSON. I doubt it. I think that the principal part as I recall, of that appropriation, was to go for two aircraft vessels. I did not think that we had reached the stage where we needed those vessels or where it was necessary to build new ships for that purpose; and as I recall it now, the major part of that appropriation was to build and equip two aircraft ships.

The CHAIRMAN. What were those two aircraft ships; what sort of ships were they?

Admiral BENSON. They were two large ships that would carry aircraft with appliances on board from which they could depart and to which they could return, with storage of aircraft on board.

The CHAIRMAN. And \$11,000,000 of the appropriation was to be used for that purpose?

Admiral BENSON. I said the major part of it.

The CHAIRMAN. I am asking you a question.

Admiral BENSON. I said the major part. Just how much, I could not say, now.

The CHAIRMAN. Were there any other plans made by Capt. Bristol except for those two aircraft ships?

Admiral BENSON. No. I think he had other plans, but as I recall it, the major part of it was to build these two ships. What the other part of it was for I could not possibly recall now.

The CHAIRMAN. Were there not other plans made by Capt. Bristol that could not be carried out on account of the failure to give him the appropriation then asked?

Admiral BENSON. That I could not say. I am informed by Admiral McKean that the full recommendations of Capt. Bristol as made at that time are in the record already.

The CHAIRMAN. But you are not familiar with those recommendations?

Admiral BENSON. No; I am not familiar with them.

The CHAIRMAN. Will you cite the page, if you find it out, on which those full recommendations are given?

Admiral MCKEAN. I can not give the page, but it is under the head of my testimony on aviation, and I submitted the originals, or a copy of the originals.

The CHAIRMAN. In any event, Admiral, do you not feel that if we had made specific preparations in regard to aircraft and extensive appropriations at that time, it would have been useful in 1917, after we had entered the war?

Admiral BENSON. Well, in the light of subsequent events it would unquestionably have been well to have devoted more time and more money to that particular phase of the question; but in view of the situation as it was then—and that is what we had to go upon—in my judgment, who had charge of this whole business and all, I felt that that was the best thing to do in the light of what we then had; that that was the best thing to do, and I did it. I would do it again under the same circumstances. As time went on we got the money, and we developed it, and I think that our service made a very creditable showing, and was of material assistance in a way, as far as it could be used on the other side.

The CHAIRMAN. Did we have any aeroplanes over there in the first six months of war?

Admiral BENSON. I do not think we did.

The CHAIRMAN. If we had had some ready and could have sent them over, would they not have been of assistance?

Admiral BENSON. Well, I do not think it was possible to get them. We were making every effort to develop motors, and it was not really until the Liberty motor was developed that it was practically possible to produce aircraft in large quantities. And besides, it was a question, and it is only within a very recent time that it has not been, whether aircraft for naval purposes would ever have been very useful except for the purpose of obtaining information, as guards, and in fleet operations, and so on.

The CHAIRMAN. Would they not have been of use in protecting our coasts over here, and thereby relieving vessels that might have been sent over there?

Admiral BENSON. Exactly; they were useful, and they were very efficiently used on our coast, for obtaining information.

The CHAIRMAN. Would they not have been useful in dropping bombs on submarines?

Admiral BENSON. As I say, that was later. I do not think the bomb proposition had been developed in 1915.

The CHAIRMAN. I am talking about 1917, if we had had them?

Admiral BENSON. Well, 1917.

The CHAIRMAN. If we had had the planes, would they not have been of use on our own coast, and thereby have released vessels that could have gone over to the other side?

Admiral BENSON. They might have; yes.

The CHAIRMAN. Then would you not say that it would have been a good thing if we had developed our air service in 1915, so as to have been better prepared?

Admiral BENSON. It would have been a good thing.

The CHAIRMAN. If we had had an air service with plenty of aircraft and plenty of personnel?

Admiral BENSON. It would have been an excellent thing.

The CHAIRMAN. Yet under the circumstances you say you would do the same thing again?

Admiral BENSON. Yes; without the light of subsequent events, I mean with the same plan and under the same circumstances. I am willing to admit that I made a mistake, if you like; but that is what I say.

The CHAIRMAN. You mean that you would make a mistake again?

Admiral BENSON. Yes; if I did not have the experience I have now I would probably make the same mistake, if you call it one.

The CHAIRMAN. But you are willing to admit that in view of what has happened since, it would have been a great deal better if we had had them?

Admiral BENSON. Yes; I am willing to admit that.

The CHAIRMAN. Admiral Mayo, I think, has testified that a certain number of the personnel of his battle fleet were withdrawn from the fleet to act as armed guards on merchant ships?

Admiral BENSON. Yes.

The CHAIRMAN. A certain number of officers and men.

Admiral BENSON. Yes.

The CHAIRMAN. That was both in the spring and in the summer of 1917?

Admiral BENSON. Yes.

The CHAIRMAN. After these men were withdrawn, would you say that our battleship force was ready for battle?

Admiral BENSON. Not as ready as it should be; no. It was short of personnel; short at times of personnel completely, and at almost all times of experienced, well trained personnel.

The CHAIRMAN. And that was the existing state of affairs on April 6, 1917, was it not?

Admiral BENSON. Yes; we were short of personnel. We were decidedly short of personnel.

The CHAIRMAN. That is for the battle fleet?

Admiral BENSON. The battle fleet was short of officers and men for battle purposes.

The CHAIRMAN. Was the organization of the Office of Operations fully prepared for before our entrance into the World War?

Admiral BENSON. I would like to know exactly what you mean. I want to know what is coming after, so that I can answer the question.

The CHAIRMAN. I would like you to comment on the organization of the Office of Operations at the time that we went into the war.

Admiral BENSON. The Office of Operations, so far as the organization was concerned—I mean by that the different divisions, etc.—was more or less in skeleton form. We were short of necessary personnel, and we had to build up; for instance, as I stated yesterday, increase our communication service, our force for coding and decoding, and generally for the fully efficient working of the office we were decidedly short on personnel, if I understand that phase of the question you want me to discuss. If you want me to discuss the law, or anything it was acting under, that is a different matter.

The CHAIRMAN. I would like you to discuss the matter in detail, if you will.

Admiral BENSON. That would involve my opinion of how the Office of Operations should—what authority would be given it and what its organization should be.

The CHAIRMAN. I would like to have that.

Admiral BENSON. Well, my opinion is that the office of the Chief of Naval Operations should have the responsibility for the preparation of the Navy as a whole. He should be held strictly responsible for that, but he should have the authority that enables him to discharge that; all, of course, under a civilian Secretary of the Navy.

The CHAIRMAN. But he should have the authority?

Admiral BENSON. He should have the authority to coordinate all of the technical activities of the Navy Department, and he should be held responsible for their efficient coordination and cooperation.

The CHAIRMAN. And, having that authority and that responsibility, he should be free to give his views to Congress, should he not?

Admiral BENSON. He should, in that position, and there should be some arrangement by which he should be kept fully informed as to the policies of the Government—I mean the political policies of the Government; what international problems were pending, what the international policy of the administration is at the time, any changes that might involve the distribution of forces. But he

should be particularly held responsible for the proper and efficient coordination of all the naval activities. But he should have the authority, and it should be so understood. For instance, he should be able to give directions to all the bureau chiefs. In addition to Material and Operations, he should particularly have directly under him the question of personnel. I think he should have a voice in the selection, and be almost responsible for the selection of all officers for prominent positions, both in the Navy Department and in the fleet.

The CHAIRMAN. How do you mean, almost?

Admiral BENSON. Of course I do not want to sidetrack the Secretary. He, as the head of the department, of course, is held responsible to the country for the department. But it should be so well established that he has this right that the Secretary would not go counter to it unless there were most excellent reasons. You might possibly get a Chief of Naval Operations that was not efficient, or he might have prejudices, and he might have all kinds of things, and there should be some check on him, and the Secretary should have that authority, because in the last analysis the Secretary is responsible. But I do think that in order to have the organization what it ought to be that change should be made.

I think I can illustrate my point. If you will remember, the administration came into power on the 4th of March, 1917, and we went to war on the 6th of April. If you had had an entirely new Secretary come in on the 4th of March, with the old organization before the Office of Operations was established, you would practically have had nothing to coordinate the technical activities of the department except a new Secretary of the Navy.

The CHAIRMAN. And is that true of your organization you now have?

Admiral BENSON. It is not true now; but we have not gone far enough, in my opinion. I think we saved the day—I dislike to refer to it, as I happened to hold the position, but I have a firm conviction in my own mind that what saved the day in this whole war, certainly so far as we are concerned, was the establishment of the Office of Operations in the work it did during the war; but I think it ought to go further and go along the lines that I have stated.

The CHAIRMAN. You say that the Chief of Operations should have practically the power of appointing his subordinates in Operations?

Admiral BENSON. For instance, the chief of a bureau—I think he should have a decided say in who should be chiefs of bureaus.

The CHAIRMAN. But always subject to the approval of the Secretary?

Admiral BENSON. Always subject to the approval of the Secretary, yes.

The CHAIRMAN. Of course if the Secretary did not approve he would not appoint the men that were indorsed by the Chief of Operations, and how would you get anywhere in such a case? I take it that at the present time the Chief of Operations advises with the Secretary about appointment, does he not?

Admiral BENSON. Not always. I was not always consulted. But I will say this. My experience in the Navy has been this, that if an officer will conscientiously and firmly and properly present his views, and they are sound, there is not anybody, the Secretary of the

Navy or Congress or anybody else, that has the interest of the country at heart, that is going counter to it; and where it has not been done it has been because, in my opinion, they either did not have the authority or did not properly perform it.

The CHAIRMAN. Then would you go so far as to say that the Chief of Operations should make the appointments and the Secretary should have the right, after they are made, simply to turn them down?

Admiral BENSON. No; that he should have the right to recommend them.

The CHAIRMAN. He has that right now, if he wants to.

Admiral BENSON. Well, but he has not the responsibility and the authority which I have recommended, that go together.

The CHAIRMAN. Under the clause giving him the responsibility, you would give him the right to make plain his case to the Congress?

Admiral BENSON. Yes; and it should be understood that he should have that, and that it should carry the proper weight.

The CHAIRMAN. But in the same way would he give to the Congress the men that he had appointed or had advised for appointment to these various offices?

Admiral BENSON. No; there is an element of the situation, Mr. Chairman, that can readily be understood. It is very difficult to explain. What I mean is that if it was a well-understood fact that the Chief of Naval Operations had the responsibility and the authority which I have outlined, and that it was incumbent upon him to see that the proper people were recommended to the Secretary to hold these various positions, it is my opinion that the Secretary would always listen to it and be guided by it except in very exceptional circumstances; and even if he went counter to the recommendations, which undoubtedly would often happen—it does often happen—influences are brought to bear and therefore they have to deal with questions of that kind, and it is very difficult to overcome; and therefore, with any system we may have, we can hardly make it absolutely cut and dried and hard and fast.

The CHAIRMAN. But unless you do in some way make it hard and fast, the Chief of Operations might make any recommendations he saw fit, and they might all of them be turned down.

Admiral BENSON. That might be.

The CHAIRMAN. I can not see that that would change matters very materially from the condition that they are in at the present time.

Admiral BENSON. I think it would, sir. I think it would make a very decided difference.

The CHAIRMAN. You state that the Chief of Operations should be informed about the foreign policies of the Government?

Admiral BENSON. Yes, sir.

The CHAIRMAN. Why?

Admiral BENSON. In order that he may know whether or not the Navy is properly prepared to carry out those policies.

The CHAIRMAN. Should not the Navy at all times be prepared practically to carry out the policies?

Admiral BENSON. Yes; but it might be necessary to make certain changes. It might be necessary to increase the forces then existing. What they have, it is up to the Chief of Naval Operations to see that

what is already provided is always ready; but a change in foreign policy might make it desirable to increase a certain force, or to move it from one part of the world to another, or something of that kind, to be prepared to carry out the policy.

The CHAIRMAN. It is conceivable, is it not, that the foreign policy of the administration and the foreign policy of Congress might differ?

Admiral BENSON. Of course.

The CHAIRMAN. Which policy should the Chief of Operations be acquainted with?

Admiral BENSON. I think he should be kept informed of the policies of the administration.

The CHAIRMAN. Of the administration?

Admiral BENSON. Yes, sir. He can easily keep track of the policies of the Congress from the discussions that go on; and that is a thing he has to do. But, primarily, he is an official of the administration, and he should be kept informed of its foreign policies, and be kept——

The CHAIRMAN. Before Congress is so informed?

Admiral BENSON. No; I did not say that. But I say he should be kept informed. Just what the details of it should be I have not stated.

The CHAIRMAN. If it is not before Congress is informed, can he not get from the messages of the President to Congress the same information now?

Admiral BENSON. Certain questions might come up from time to time. Congress might not be in session. I do not see that I can express it, Mr. Chairman, in any different language than saying that he should be kept informed.

The CHAIRMAN. I am looking for information, Admiral.

Admiral BENSON. That he should be kept informed of the foreign policies of the administration.

Senator PITTMAN. We would like a lecture on international law.

The CHAIRMAN. We would like your ideas on the matter, concretely put, so that there can not be any mistake about them.

Senator BALL. May I ask a question here?

The CHAIRMAN. Yes.

Senator BALL. He would be a part of the administration?

Admiral BENSON. Yes; but as he is now I understand he is not necessarily kept informed of all the different policies.

The CHAIRMAN. Is the Secretary?

Admiral BENSON. I assume, of course, being a member of the Cabinet, that he is.

The CHAIRMAN. Is not that sufficient, then, if the Secretary of the Navy is kept informed?

Admiral BENSON. If the Secretary always keeps the Chief of Naval Operations fully informed, however he may get it. That is a detail, as to how he should get it, but it should certainly be understood that the Chief of Naval Operations is kept informed.

The CHAIRMAN. If the President has private plans about foreign policies and he does communicate them to the Secretary of the Navy, do you think that he should also be required to communicate them to the Chief of Operations, or through the Secretary to the Chief of Operations?

Admiral BENSON. I think if there is any question at all, sir, that the Chief of Naval Operations is not being kept fully informed, he should have the privilege of being informed by the President of the United States, if necessary, and he should attend Cabinet meetings where policies of that kind are discussed.

The CHAIRMAN. That would be an innovation, would it not, in our form of Government?

Admiral BENSON. I do not know that it would. I am not sufficiently familiar with the details to say. Nevertheless, I think it would be a good thing for the country. I thought that you wanted my views, and that is what I think would be a good idea. It might not be necessary for him to attend those meetings; but, at any rate, some means should be devised by which he is kept fully informed of the foreign policies of the administration that would involve the preparation of the fleet. I think it very important that he should be kept fully informed. He could hardly be held responsible unless he was fully informed.

The CHAIRMAN. You may be right, but he would get a great deal of information that the Senate has not been able to get.

Senator PITTMAN. The Senate has not used the information they got very actively, has it, Admiral?

The CHAIRMAN. Well, we will see about that later.

Would you say that the office of Operations as it was organized at the commencement of the war, in April, 1917, was so adequately prepared for carrying on the war as it should have been or as it could have been?

Admiral BENSON. No; it was not; and I would like to add, if I may, that it did carry it on, and very successfully.

The CHAIRMAN. You mean that the war was won?

Admiral BENSON. Yes; the war was won; and I do not think any serious mistakes were made.

Senator BALL. May I ask him some questions?

The CHAIRMAN. Certainly.

Senator BALL. It would have been carried on just as successfully and at a much less cost, probably, if we had been adequately prepared?

Admiral BENSON. At a very much less cost; yes, Senator; very much.

Senator PITTMAN. May I ask a question there?

The CHAIRMAN. Well——

Senator PITTMAN. Did not your preparation depend primarily upon Congress being willing to appropriate the necessary money——

The CHAIRMAN. Wait a moment.

Senator PITTMAN. Do I understand that the majority of the committee may break the rule, by permission of the chairman, and the minority can not?

The CHAIRMAN. I think it is better to observe the rule.

Senator PITTMAN. I respect it, if that is the ruling of the chair, but——

Senator BALL. I am sorry that I asked the question, but I felt that I was bringing out a point there. Strike it all out, Strike my question out.

The CHAIRMAN. Let it go.

(Informal discussion between members of the committee followed.)

The CHAIRMAN. Then you think that changes might have been made that would have been of advantage?

Admiral BENSON. Yes. We needed more personnel and a larger trained force for that purpose, and it would have helped materially to have had a greater force.

The CHAIRMAN. But you would not say that the office was fully prepared at our own entrance into the war? Other witnesses have testified about that.

Admiral BENSON. Well, it is a little difficult to answer. With what we had, I think we would have made the best of it, if that will answer your question. I think that with what we had we were making the very best of it; but, as I have said, I think the office should have been differently organized, and at least had more authority.

The CHAIRMAN. Did you have a complete planning section?

Admiral BENSON. Not what you would call a complete planning section, no; we did not, Senator.

The CHAIRMAN. The law required you, did it not, to make plans to be in readiness for war?

Admiral BENSON. I was charged with the preparation of plans, yes; and, as I stated yesterday, I felt that plans, as far as it was possible, were either drawn up or in preparation.

The CHAIRMAN. The law provided for 15 assistants in the planning section, did it not?

Admiral BENSON. Not in the planning section. That was altogether in my office.

The CHAIRMAN. Not in the planning section?

Admiral BENSON. Not in the planning section. The law, I am quite sure, does not say anything about a planning section; but that I was charged, as Chief of Naval Operations, with the preparation of plans.

The CHAIRMAN. One of the plans, I think, that was made out by Admiral Fiske, did provide for 15 assistants in the planning section, did it not?

Admiral BENSON. I really do not know, Mr. Chairman, what Admiral Fiske had prepared. As I told you yesterday, I found nothing in the office except an old dirty chart hanging from the wall and one or two other small details. I found nothing of that character that I know of. If it was in the files in the office, I do not recall it. I do not wish to make a statement that might be found inaccurate in that there was some little detail in the office later; but to the best of my recollection that was the condition in which I found the office. Do you wish me to read what there is in regard to the 15 officers? I have it right here.

The CHAIRMAN. Yes; what is that from?

Admiral BENSON. This is from the regulations of the Navy Department, and it quotes the law in regard to the office. [Reading:]

To assist the Chief of Naval Operations in the performance of the duties of his office there shall be assigned for this exclusive duty not less than 15 officers of and above the rank of lieutenant commander of the Navy or major of the Marine Corps.

That was added in the bill of 1916.

The CHAIRMAN. That was in the law?

Admiral BENSON. That was put in the law, in the appropriation bill that passed Congress in 1916.

The CHAIRMAN. And did you have the 15 that the law provided for?

Admiral BENSON. At the time, in 1917?

The CHAIRMAN. At the outbreak of the war?

Admiral BENSON. In 1917 I think I had; but at times I did not have it. There was such a shortage of officers that it was almost impossible to get the number; and that was understood, but I was making every effort to get the officers in and to put them in their places as fast as possible. The office had to be developed from nothing; the various divisions had to be organized.

The CHAIRMAN. What time was that?

Admiral BENSON. August, 1916.

The CHAIRMAN. At any time between August, 1916, and April, 1917, did you comply with the terms of the law?

Admiral BENSON. I did not at all times; no.

The CHAIRMAN. Did you at any time?

Admiral BENSON. Yes; at times, part of the time.

The CHAIRMAN. Part of the time you did have 15?

Admiral BENSON. Part of the time I did have 15.

The CHAIRMAN. When?

Admiral BENSON. I would have to consult the files of the office, Mr. Chairman, to give you that. It is a detail that it would be utterly impossible for me, handling such a tremendous proposition, to remember. You see, I had the whole situation to develop, and I had to leave the details very largely to my subordinates, and it kept me busy thinking out policies and outlining them so that the details could be developed.

The CHAIRMAN. Well, considering that the law required you to have plans, to make plans, in readiness for war, and that the planning department of Operations was one of the most important parts of that bureau, should you not have had a department properly equipped, according to the law?

Admiral BENSON. The law does not require a planning section, but I should have had officers there, and there were some officers there. I do not know just when they came to the office, but it was quite well understood by those who were immediately interested in the office, in Congress, that it was a development.

The CHAIRMAN. What you read was not a quotation from the law? It was a regulation of the department?

Admiral BENSON. No; that was a quotation from the law. That 15 officers is a law of Congress.

The CHAIRMAN. It is law?

Admiral BENSON. It is a law of Congress passed in the act of 1916; August 29, 1916.

The CHAIRMAN (after examining law). These 15 officers referred to need not necessarily be in the planning section?

Admiral BENSON. No, sir; that depended entirely on the Chief of Naval Operations, as to where he would detail them and to what duty.

The CHAIRMAN. Is there any regulation in the department about the planning section?

Admiral BENSON. Well, a planning section was developed, and a well-organized one, before I left the office.

The CHAIRMAN. That is at a later period, during the war?

Admiral BENSON. That is later. The regular planning section, as I recall it, was not normally as such, as a definite division of the office; was not established until after my return from Europe last summer.

The CHAIRMAN. Did you not have a planning section before that?

Admiral BENSON. A so-called planning section, but not recognized as a division of the office; no; I did not.

The CHAIRMAN. Then, the Bureau of Operations, which was responsible for making plans for readiness for war—how did you make your plans?

Admiral BENSON. We had two or three officers who were detailed. I think Capt. Pratt had charge of that for a while; in fact, all the time, practically. Those officers, with the aid of the General Board, which was practically, in a way, under the office—you might say an adjunct to it—got out such plans as were gotten out. Such plans as were gotten out were gotten out by these officers and by the General Board.

The CHAIRMAN. However excellent may have been the services of Capt. Pratt, you would not say that that was a sufficient planning section?

Admiral BENSON. I would not; but I say under the situation, with the shortage of officers and the situation we were facing, it was the best we could do, and that we got out sufficient plans or memoranda, or whatever you wish to call it, to meet the situation.

The CHAIRMAN. But the planning section is really one of the most vital and important sections of the bureau, especially in time of war, is it not?

Admiral BENSON. It is very important; yes. Of course you must have plans to operate with, or policies.

The CHAIRMAN. And you would not say that two or three officers working on plans would really be sufficient, would you?

Admiral BENSON. I do say that they met the situation, Mr. Chairman, as we found it. In a well-completed organization, under different conditions, I would insist; and as soon as it was possible to organize a planning section we did organize it, and it did function.

The CHAIRMAN. But you did not have at the outbreak of the war a planning section at all?

Admiral BENSON. I do not think that at the outbreak of the war we had any organized planning section.

The CHAIRMAN. Did you, as Chief of Operations, have the necessary authority in all respects over the bureaus and other agencies of the Navy Department to enable you to make all plans and preparations for war?

Admiral BENSON. No, I did not say that I had; but I want to say that I had complete cooperation with the bureaus.

The CHAIRMAN. That is a complete personal cooperation?

Admiral BENSON. Personal cooperation; but I did not have the authority over them.

The CHAIRMAN. Did you at any time direct all the bureaus to make preparations for, or to anticipate, war in accordance with any well-considered plan, previous to February, 1917?

Admiral BENSON. The order was sent to all the bureaus, signed, I think, by the Secretary, and I think it was drawn up in my office, and it went out on the 20th of May, 1915, to report the conditions

of their bureaus and offices in relation to the particular subject of readiness for war, and to report any deficiencies that might exist, and from time to time thereafter at regular stated periods to inform the office as to the progress they were making in supplying the deficiencies. That was the 28th of May, I think, 1915.

The CHAIRMAN. That was information that you asked from the bureaus?

Admiral BENSON. From the bureaus, yes. But, as I remember it, the order was signed by the Secretary.

The CHAIRMAN. What I asked you was if at any time you directed all the bureaus to make preparations for, or to anticipate, war in accordance with any well considered plan, previous to February, 1917; and if so, when?

Admiral BENSON. I can not recall any such order.

The CHAIRMAN. You can not recall such an order?

Admiral BENSON. I can not; no, sir.

The CHAIRMAN. Did you receive instructions to give any such order?

Admiral BENSON. I do not think so. If I had, I should have carried it out, sir.

The CHAIRMAN. Did you have any plans, any specific plans?

Admiral BENSON. Only such as I described yesterday, sir.

The CHAIRMAN. No specific plans so far as the bureaus were concerned?

Admiral BENSON. Not a regularly drawn up plan; no, Mr. Chairman.

The CHAIRMAN. Did you have any direct or explicit instructions from the Secretary of the Navy that authorized you to make thorough preparations for war, even as regards plans?

Admiral BENSON. I do not recall any.

The CHAIRMAN. Did the policies or the instructions of the Secretary encourage or discourage plans and preparations of the fleet for actual war as regards personnel, material, or organization?

Admiral BENSON. The general policy of the Secretary was that what we had, as he repeatedly insisted on, must be kept up 100 per cent ready in every way. That was his general announced policy.

The CHAIRMAN. Nothing to do with any war?

Admiral BENSON. No; I do not think war was specifically mentioned; but as I stated yesterday, the policy is that the Navy should always be ready with what it has, 100 per cent; and that was the Secretary's announced policy, that he wanted everything 100 per cent.

The CHAIRMAN. And of course he did not get it. You have testified that, yourself, that it was not 100 per cent.

Admiral BENSON. Well, sir, if I testified, my testimony stands, that is all.

The CHAIRMAN. Would you not say that now?

Admiral BENSON. It was not 100 per cent ready, no.

The CHAIRMAN. You think that the Chief of Operations should have some authority over the bureaus and other agencies, always subject to the supreme authority of the Secretary?

Admiral BENSON. I do.

The CHAIRMAN. That is to coordinate and make plans and preparations for war?

Admiral BENSON. Yes; it is absolutely necessary for the efficient working of a technical department like the Navy Department that there must be some technical head to coordinate the activities of all, to secure efficiency.

The CHAIRMAN. And you would like to see that brought about.

Admiral BENSON. I would. I think it absolutely necessary for efficient functioning, and preparation of the Navy for war.

The CHAIRMAN. What would have been the result if we had had no Office of Operations and no Planning Section in 1917?

Admiral BENSON. The good Lord only knows!

The CHAIRMAN. Chaos?

Admiral BENSON. No, I do not think we would have had chaos, exactly, but I think you would have had a very different story to tell.

The CHAIRMAN. Do you know who was responsible for initiating or establishing the Office of Operations?

Admiral BENSON. No, I do not.

The CHAIRMAN. Are you familiar with the general principles of the organization proposed by the Mahan-Moody commission and confirmed by the Swift board?

Admiral BENSON. No, sir; I am not.

The CHAIRMAN. So that you do not consider the present organization of the Navy Department all that could be desired, as you have stated in your testimony?

Admiral BENSON. As I have stated, and what I thought ought to be done. I would not change the bureau system or anything of that kind. I would simply give what I have stated there, to the Office of Operations.

The CHAIRMAN. You stated yesterday that there was some action taken by the department in preparing and inspecting and listing vessels, yachts and merchant vessels, in the United States that might be needed in case of war?

Admiral BENSON. Yes.

The CHAIRMAN. How was that done? Through what organization was it done?

Admiral BENSON. It was under my office. The board of inspection was increased, I think, by two or three members, and the General Board made a study of all the requirements of different types of vessels that might be used as auxiliaries in regard to all particulars, the equipment that would be necessary for them, the fleet, etc. Then that list of requirements for the different types was turned over to the inspection board. The board was directed to inspect all the vessels in the country and, after comparing the requirements for each type, to assign the vessel inspected to the particular type for which it was best suited, and to report the necessary changes that would be desirable and the equipment that would be needed. Those reports came to my office and were gone over and then referred to the General Board and a careful list of them kept. I think copies of them were also sent to the various bureaus concerned. The bureaus were directed to make the necessary drawings and plans for the alterations and a list of the supplies and the equipment necessary, and they were sent to the yards to which the particular vessel would be directed to go in case it was taken over, and the yards were directed to make all possible preparations they could for meeting

that particular situation, and those things were all on record, and as far as possible the equipment was provided out of the appropriations that were on hand, and every possible effort that could have been made was made, so that in case of war we kept track of the vessels, where they were operating, so that we would know just where they were and when we could take them over, and all that was followed out during the period before the war, and that information was utilized as soon as we went into the war. I do not think there was any one detail that could have been anticipated before we entered the war with what we had that was not considered and prepared for; not one single thing. I can not recall now, as I look back upon it, a single thing that we could have anticipated that we did not.

The CHAIRMAN. So that after the declaration of war and after the department had the authority to commandeer these vessels they could have been immediately taken over?

Admiral BENSON. Yes, sir; most of them were taken over—a great many of them—as fast as they were needed. They were turned over, with the exception of certain vessels that we felt were needed more for some other purposes. For instance, take the ocean-going tugs. We did not take them over, naturally, for a very good reason.

The CHAIRMAN. And in all cases where you took them over, were supplies immediately on hand, and was personnel ready to put on them, so that it was only a question of a day or two after you had the authority to take them over?

Admiral BENSON. That depends. I do not imagine they were all ready, and I question very materially whether they were in personnel. Each one would have to be taken up separately to answer that. I think that in every case they were not ready.

The CHAIRMAN. You do not think that everything was ready?

Admiral BENSON. No, sir; not in all respects. I do not think it was. Of course, in taking over ships the whole crew, the officers and crew, were taken in, often; and in that way many of them were ready to operate right away, with a little additional personnel.

The CHAIRMAN. Was there any scheme to designate gun installations, assign batteries, and decide upon the necessary personnel to quickly fit such vessels for naval service?

Admiral BENSON. Yes, sir; a very definite scheme. Every detail was worked out, and we knew, beforehand.

The CHAIRMAN. The details were all worked out beforehand, and carried out?

Admiral BENSON. They were carried out also.

The CHAIRMAN. You have just stated that you did not think everything was ready in all respects.

Admiral BENSON. I thought you referred to guns.

The CHAIRMAN. My question covered more.

Admiral BENSON. I can not say about that; but the question was as to the matter of guns and the placing of guns.

The CHAIRMAN. My question was, was there any scheme to designate gun installations, assign batteries, and decide upon the necessary personnel to quickly fit such vessels for naval service.

Admiral BENSON. Those were all in the plans I spoke of that the General Board supplied for each ship or vessel that we took. Those details were all worked out. I thought you referred to the delay in getting the personnel on board, and preparing.

The CHAIRMAN. The details were worked out, but the question of getting the personnel ready and the supplies and other matters that would be needed on the ship, you state were not ready.

Admiral BENSON. I do not think that they were always ready, in every detail.

The CHAIRMAN. It was a very important matter that they should be ready, was it not?

Admiral BENSON. Necessarily.

The CHAIRMAN. Now, if the ships, large and small, of the Regular Navy had been systematically prepared and made ready as regards material in the years 1914, 1915, and 1916, would not our navy yards have been cleared and more free to undertake new construction, and to quickly prepare yachts and merchant ships for war?

Admiral BENSON. Well, that is equivalent, as I understand—well, yes.

The CHAIRMAN. Had the above policy been in force, could we not have had a large force of destroyers, gunboats, yachts, and small vessels ready to throw into the war zone in the first month of the war?

Admiral BENSON. Not without special appropriations and provisions for destroyers and yachts, we could not have had; that is, for the new ones. I am talking about those we had on hand.

The CHAIRMAN. And if we had the immediate right to commandeer immediately on our entrance into the war, we could have had the yachts, too, could we not?

Admiral BENSON. Necessarily, if we had had the vessels there and they had been all ready, they could have been gotten over sooner.

The CHAIRMAN. They could have been gotten over sooner?

Admiral BENSON. Yes.

The CHAIRMAN. They could have been gotten over the first month of the war, could they not?

Admiral BENSON. If we had had the vessels and they were ready, we could have sent them over.

The CHAIRMAN. If we had prepared all our plans beforehand in regard to it?

Admiral BENSON. Not plans. We had to have something else besides plans.

The CHAIRMAN. I say if we had had prepared all our plans for getting ready the personnel and material before the war, and then immediately on the declaration of war had asked Congress to authorize the commandeering of the vessels, we could have sent them over within a day or two, could we not, or a few days?

Admiral BENSON. Oh, I do not think so.

The CHAIRMAN. Why not?

Admiral BENSON. Why, the question is too involved, Mr. Chairman. This is a tremendous proposition of handling the Navy and keeping it going, and every little detail of that kind. You can not possibly ship over and send a large force across that way to meet the enemy.

The CHAIRMAN. It was a question of war. We had many tremendous propositions.

Admiral BENSON. We could not do it immediately. It was impossible.

The CHAIRMAN. I am asking you why not; why could you not?

Senator PITTMAN. Let the Admiral finish his answer. He should be treated with courtesy.

Admiral BENSON. To begin with we did not have the vessels.

The CHAIRMAN. There is no discourtesy. That is not what I asked you, Admiral. I asked you if you had made your plans in regard to these things, and you said you had lists of vessels all prepared, and materials procured, and so on.

Now, I ask you if, with these means all prepared, and if everything had been prepared to be put on these vessels as soon as you could take them over, and then the Secretary had gone to Congress and asked for the right to commandeer them at once, why could not they have been all ready within a few days?

Admiral BENSON. Well, sir, I can only answer by saying that if we had had the vessels and they had all been ready we could have sent them over.

The CHAIRMAN. As far as the appropriation is concerned, the emergency appropriation that was passed some time in March covered that, did it not?

Admiral BENSON. In February, I think it was, sir.

Admiral McKEAN. In February; \$115,000,000.

Admiral BENSON. As I understand, your question is if it had been determined in February or March that we were going into war——

The CHAIRMAN. That we were pretty sure to go into the war, and if everything had been gotten absolutely ready in case we should go into war; yes.

Admiral BENSON (continuing). If we had done that, and taken all these vessels and put them in the yards and gotten them absolutely ready, and decided to send them over there in the first month of war, it could have been done.

The CHAIRMAN. Would not this have been a wise and comparatively inexpensive policy?

Admiral BENSON. Judging from subsequent events, it would.

The CHAIRMAN. Would not the moral and material effect of such quick and determined action have been greatly to encourage our Allies and greatly to discourage Germany?

Admiral BENSON. From my experience with the representatives of the Allies, I think we did more than they really expected us to do, and I doubt if it would have added very much to the moral effect.

The CHAIRMAN. They did not expect us to send any troops over there at all to fight, did they?

Admiral BENSON. I do not think they did, in the beginning.

The CHAIRMAN. And if we had shown them by a very quick naval offensive that we were going to do our part in the war, would not that have had a great moral effect?

Admiral BENSON. I do not think it would. I think we did so much, we did more than they asked for.

The CHAIRMAN. Did we show it in April, particularly?

Admiral BENSON. I think we did show it.

The CHAIRMAN. How; by sending six destroyers?

Admiral BENSON. When they only asked for two.

The CHAIRMAN. That shows that they did not expect very much from us; that they only expected two, does it not?

Admiral BENSON. I do not know what they expected. I am only talking about what they had asked for.

The CHAIRMAN. You think if they asked for only two destroyers and we sent them six, that it had a tremendous moral effect, do you?

Admiral BENSON. No; I do not think it had a tremendous moral effect, but I think we were giving them more than they asked for or expected.

The CHAIRMAN. If we had sent 100 or 75, do you not think that it would have had a greater moral effect?

Admiral BENSON. It would have had a greater moral effect; but they did not ask for anything of the kind. That does not mean that they did not want it.

The CHAIRMAN. Oh, no; that does not mean that they did not want it.

Admiral BENSON. I say they did not say they wanted it.

The CHAIRMAN. Did you not know that they had sent word through Admiral Sims that they wanted them?

Admiral BENSON. Not that I remember.

The CHAIRMAN. Did he not say that they wanted all the ships that we could possibly send over?

Admiral BENSON. Something of that kind; but they knew that we could not send any one hundred and thirty odd destroyers.

The CHAIRMAN. Certainly not; but they had asked us to send over vessels.

Admiral BENSON. What would they have done with them?

The CHAIRMAN. What?

Admiral BENSON. What would they have done with them? Suppose we had sent cruisers and other things over there, what would they have done with them?

The CHAIRMAN. I am asking you now about these gunboats and yachts and vessels that they wanted for fighting submarines.

Admiral BENSON. They could not fight submarines with gunboats and yachts, very well.

The CHAIRMAN. Were they not of some value?

Admiral BENSON. They were of some value, yes; because the German submarines were depending on the destruction of merchant ships by using bombs instead of torpedoes; and to that extent they were of some service; but otherwise they were not.

The CHAIRMAN. I thought you spoke of them as of very considerable service in this country, in defending our coasts.

Admiral BENSON. They were, to that extent, getting information and protection.

The CHAIRMAN. Would they not have been of some use there?

Admiral BENSON. Of some use, but not very great use.

The CHAIRMAN. They were sent over there?

Admiral BENSON. They were sent over, and were used for convoy and escort work; and they were used for bombs and to help in every way they could.

The CHAIRMAN. Even the fact that they were sending them over and taking that much part in the war would have had a moral effect, would it not?

Admiral BENSON. To a certain extent; but I think there was never any question in any of the Allies' minds as to the attitude of the United States in regard to the question, as I recall it, at any time.

The CHAIRMAN. There never was what?

Admiral BENSON. Any question in the minds of the Allies as to the whole-souled part that the United States was taking in the war, and would take.

The CHAIRMAN. I thought you said they did not expect us to send troops over.

Admiral BENSON. I do not think they did in the beginning.

The CHAIRMAN. Would it be whole souled if we were not going to send troops over?

Admiral BENSON. That was their attitude at the time, and I do not think there was any question of that. I do not think that the Allies thought at any time that we would not send troops if they wanted us to. I think the idea was that we would send troops when they could be properly utilized, and they were prepared for it. That is as I remember the situation.

The CHAIRMAN. You do not think that at the outbreak of the war they wanted us to send troops?

Admiral BENSON. I do not think it was generally expected, and it was not well decided—just as I remember. Of course, I was not kept informed as to that phase of it. I am only speaking from memory, from the impression on my mind.

The CHAIRMAN. They may not have expected us to, but at least they would have wanted us to?

Admiral BENSON. I could not say from my knowledge that they did. I would imagine that they would, but I could not say so. I should imagine they would be glad to get anybody to help them.

The CHAIRMAN. The hour of 12 having arrived, we will adjourn until 10 o'clock to-morrow morning.

Thereupon, at 12 o'clock m., the subcommittee adjourned until to-morrow, Thursday, May 6, 1920, at 10 o'clock a. m.

NAVAL INVESTIGATION.

THURSDAY, MAY 6, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235 Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present, Senators Hale (chairman), Ball, and Pittman.

TESTIMONY OF ADMIRAL W. S. BENSON—Resumed.

The CHAIRMAN. The committee will come to order. Admiral, after we declared war should we have waited for the Allies to ask us, or should we have waited to find out, what they wanted before sending all available forces to the war zone?

Admiral BENSON. We should have gotten in touch with them and found out what conditions were and under what conditions they wanted us to cooperate with them before we sent them over.

The CHAIRMAN. You said yesterday, because we sent six destroyers over when they asked for two, that you thought we were doing very well, did you not?

Admiral BENSON. In comparison with their request; yes.

The CHAIRMAN. Admiral Mahan says, in the matter of preparation for war:

One clear idea should be observed first by everyone who recognizes that war is still a possibility and desires to see his country ready. However defensive in origin or character a war may be, the assumption of a simple defensive in war is ruin. War, once declared, must be waged offensively and aggressively. The enemy must not be fended off, but smitten down.

Do you believe in Mahan's principle, not to fend off but to smite down an enemy, once war is started?

Senator PITTMAN. Just a second, please. Has the chairman that work in his possession from which that extract is taken? The reason that I ask is this, that in the cross-examination of a witness, particularly by long prepared questions of that kind, there should be opportunity to ask him further from that same work.

The CHAIRMAN. I have not the work here, but I have the quotation, and I can get it.

Senator PITTMAN. Very well.

Admiral BENSON. Why, of course I agree with the general principle expressed there by Mahan.

The CHAIRMAN. You do agree with the general principle expressed?

Admiral BENSON. I do agree with the general principle.

The CHAIRMAN. Do you think, then, that waiting until we were advised just what ships or men were needed on the other side was a very aggressive policy for us to follow?

Admiral BENSON. I do not think it was aggressive, but I think it was in absolute keeping with the actual conditions which confronted the country.

The CHAIRMAN. So that Mahan's principle as laid down there would not have applied at the beginning of this war, in your opinion?

Admiral BENSON. Any principle has to be modified by actual conditions. Those are only general principles, which are carried out as far as the conditions warrant.

The CHAIRMAN. When did you first anticipate that we would become involved in this war?

Admiral BENSON. Well, as I stated in the beginning of my testimony, I felt—had felt for some years—that eventually we would be involved in war with Germany. Just when I felt that we must be involved with the Allies it is difficult and really impossible for me to state. In fact, I do not know that I ever fully came to that conclusion, but I felt that, as I stated, I had very serious doubts as to the ultimate outcome of the war between the Central Powers and the Allies, and that when we would become involved would depend very largely on when that question would be settled.

The CHAIRMAN. What question?

Admiral BENSON. The war between the Central Powers and the Allies.

The CHAIRMAN. That is, you thought that we would not go in until either the Allies had whipped Germany or Germany had whipped the Allies?

Admiral BENSON. I thought that would be the possible outcome: yes.

The CHAIRMAN. You did not think that we would go into the war after the Allies had whipped Germany, did you?

Admiral BENSON. I had very serious doubts as to the Allies whipping Germany.

The CHAIRMAN. Well, but that was one of the questions. I asked you whether you thought we would get in after the Allies had whipped Germany or Germany had whipped the Allies.

Admiral BENSON. Oh, I did not understand. After Germany had whipped the Allies.

The CHAIRMAN. After Germany had whipped the Allies?

Admiral BENSON. Yes; that was one of the possibilities that I looked forward to.

The CHAIRMAN. And you did not think there was much chance of our getting in with the Allies so as to avoid having them whipped by Germany?

Admiral BENSON. I thought there was a chance, but just how great it was I can not say now. I can not go back and analyze just what my feelings were at the time.

The CHAIRMAN. You did not think at the time that it would be a good thing for us to wait until Germany had whipped the Allies, did you?

Admiral BENSON. I thought it would be a good idea for us to be prepared as well as we could for whatever course events might take.

The CHAIRMAN. But you would not have considered it a good policy for us to wait until that event, would you?

Admiral BENSON. It depends entirely on the development of the situation. We might not have been warranted in going to war with Germany until she had committed some act that made it absolutely necessary for Congress to declare war in response to the feeling of the people of the country.

The CHAIRMAN. And you do not think that prior to April 6, 1917, Germany had committed a number of such acts?

Admiral BENSON. She had committed a number of such acts, but I do not think that it is for me to criticize or to express an opinion as to the course followed by my Government, sir.

The CHAIRMAN. In any event, you considered that war was a very probable thing, did you not?, for us?

Admiral BENSON. Yes; I did in 1917.

The CHAIRMAN. Did you ever have any doubt as to which side we should fight on?

Admiral BENSON. Never. Well, I might put it in this way: I thought that there were certain things going on that we ought to be prepared for in emergency. Our ships were being held up and certain things were going on that might make it necessary for us to take a definite stand. I never had any idea that we would have to fight any other country; no.

The CHAIRMAN. Did you ever have any idea that we could possibly fight on the side of Germany?

Admiral BENSON. No, sir.

The CHAIRMAN. Or that we could fight with any of the Allies against any of the Allies; that there was any danger of any such thing?

Admiral BENSON. I do not think any such idea ever crossed my mind.

The CHAIRMAN. What instructions did you personally give to Admiral Sims before he went abroad?

Admiral BENSON. The only particular instructions—I can not recall what instructions I gave him. I cautioned him to be very careful in his conduct in regard to how he conducted himself, and called to his attention the very delicate situation that existed. War had not been declared, and that we were directed to maintain a strictly neutral position; to keep it in mind. I gave him very earnest instructions along that line.

The CHAIRMAN. The admiral has stated that you said to him, "Do not let the British pull the wool over your eyes. It is none of our business, pulling their chestnuts out of the fire. We would as soon fight the British as the Germans." Do you recall having made such a statement?

Admiral BENSON. I do not. It would be impossible for me to repeat the language that I used to Admiral Sims. As I recall it, the conversation that I had with Admiral Sims took place in Admiral Palmer's office. Admiral Palmer was the chief of the Bureau of Navigation and our personnel division, and the question of definite instructions to Admiral Sims—they were given by the Secretary, or someone else, not by me. As I recall it, he did not even come to my office. When I was asked as to his being selected, I strongly approved of it, and the conversation that he refers to must have been that one, because I can not recall any other. Just what language I used it would be impossible for me to say. I will say, however, that I felt very strongly on the situation, and I probably used very forcible

language, and impressed upon him the seriousness of the situation and the importance of being very careful that his feelings toward the British did not lead him into any indiscretion. The language I used I can not recall. If Admiral Sims states positively that I used that language, why, it will have to go at that.

The CHAIRMAN. You do not deny that you used that language?

Admiral BENSON. I can not deny it, Mr. Chairman. I can deny most strongly, and do, that I ever intended that it should be interpreted as it has been, by the interpretation which has been attempted to give to it. I deny that most strongly. I think my record will indicate that I am not stupid, and that I understand the international situation; I understand that Congress alone can declare war; and it was language that was used under the circumstances, used only in the presence of the Bureau of Personnel, where the question of sending Admiral Sims abroad was discussed, and I considered that it was done in the most confidential and earnest and officerlike manner. I do not think anything could have been more confidential or more earnestly gone into than my conversation with Admiral Sims.

The CHAIRMAN. How could you say at that time that we would as soon fight the British as the Germans?

Admiral BENSON. Merely as a figure of speech, Mr. Chairman, to impress upon him the delicacy of the situation and the importance of conducting himself with great care.

The CHAIRMAN. Did you repeat these instructions, or at least a part of them, at a later period to Admiral Sims?

Admiral BENSON. The only other thing that I can recall was that when I went to London in 1917, and before I left this side, there was a feeling that through some influence or other Admiral Sims was being persuaded to give too much attention to British shipping, and that our destroyers were being used too much for that and too little for our own vessels. I do not mean to say that that feeling was justified, but I knew that it existed, and when I went to London I had always been, as I considered myself a very strong personal friend of Admiral Sims, I had had great admiration for him and for the work that he had done in the target practice work, and in addition to my official position and the obligations that I owed to the situation, I had a friendly feeling; and I had a talk with him and told him what the feeling over here was; that this feeling was growing up, and that there was a feeling that he was being influenced unduly by the British, and that I would advise him as a friend to be more careful about it, for his own sake as well as for the sake of the duty he was performing, and that it was so. That is the only conversation I can recall, and I am as positive as I can be, at this length of time, that it was the only time I referred to anything that was similar. That I repeated that language or anything of that particular kind I think is absolutely untrue, sir.

The CHAIRMAN. No; I do not think there is any question of repeating the latter part of the language, that to the effect that we would as soon fight the British as the Germans, at the second interview.

Admiral BENSON. Then you asked me about another case. In 1918 Admiral Sims had made certain remarks, I think, to different people who had gone over, and there were certain things in the press in which he had made remarks that were not considered quite proper with reference to the part that we were playing in the war, and the

preponderating effort, and so forth, of the British as compared with the American effort; and I realized I heard that commented on here before I went over, so that when I met Admiral Sims in Paris in 1918, the first private conversation I had with him I called his attention to that. I said that this feeling was growing up here in the country at home. I said, "You have not been home for some time, and simply as a friendly act to you I want to tell you what the feeling is at home, that you are gradually creating an impression with the people at home that you are entirely too favorable to the British, and I simply advise you as a friend to be more careful with your remarks, with your speeches, and things of that kind, because if you are not I am afraid you will create a prejudice that will do you harm in the future." And that was the only way I did it. I did it, as I say, with regard to my official position and with my feeling as a brother officer; and never had I any intention of conveying to him or anyone else any such impression as that language intimates there. And I would like to say to the committee that I feel I have been done a most grievous injustice by its being brought out.

The CHAIRMAN. Being brought out, you mean, by Admiral Sims?

Admiral BENSON. By Admiral Sims, yes, sir; by Admiral Sims.

The CHAIRMAN. But you do not deny that you used the language that is quoted by Admiral Sims?

Admiral BENSON. I can not deny it, Mr. Chairman.

Senator PITTMAN. At what time, in the first conversation, or in his conversation in London?

Admiral BENSON. I can not deny that I used it in the first conversation. I do deny that I used that language in any other.

The CHAIRMAN. But in the second conversation you do not deny that you used the words that the Admiral should not allow the British to pull the wool over his eyes?

Admiral BENSON. I can not deny that I did use that language at that time. It is possible. I do not believe that I did, but I will not deny it. Under oath, I can not deny that I did use it. Time is too long. My time was taken up—

The CHAIRMAN. There has never been any accusation that you used the language about that we would as soon fight the British as the Germans, at any time after we entered the war?

Admiral BENSON. I could not, sir, say about that language at this time. It is impossible for me. You must realize the tremendous task that I had. I simply gave my whole attention to each day's duty as it came to me. I had, as I felt, a perfect grasp of the whole field, and the bearing of one part of it to another, and I had very definite ideas in my own mind as to how best to carry on that duty, and I went ahead with it. I did not anticipate any future action, to myself or anybody else, and I did not take note and burden my memory with details with reference to what the future consequences might be.

The CHAIRMAN. Did you wish, or seek, to impress Admiral Sims with the importance of energetic action on our part?

Admiral BENSON. No; I do not recall that I did.

Senator PITTMAN. Mr. Chairman, before you leave that I just suggest to you—because otherwise I can bring it out later—that your questions there confuse his denial as to the conversation before Admiral Sims left here, and his denial with regard to what conversa-

tion he had with Admiral Sims over there. As I understand the Admiral—and if it is not true I think the chairman might develop it further—he does not remember whether he used this language charged by Admiral Sims as having been used by him, before Admiral Sims went over there, because he does not remember it. He does not deny it. He does deny emphatically that he used any of the language attributed to him by Admiral Sims in any conversation after the war commenced.

The CHAIRMAN. I do not think you are right, Senator.

Senator PITTMAN. I say that is the impression I get, and I suggest it, so that you can bring it out further.

The CHAIRMAN. You do not deny that at the second interview referred to, you did advise Admiral Sims not to let the British pull the wool over his eyes?

Admiral BENSON. I say I could not deny that, any more than any other. I do not believe I did, Senator, but under oath I could not say and would not say that I did not use it; but I do not believe I did. I can not imagine why, except the fact that it was felt that he was being influenced. It is possible that I might have used that language. I will not say, as I analyze it now, in my own mind. It is possible that I might have used that language, but I do not believe I did. And I want to say here that I have never had any unkindly feeling or anything of the kind that that quotation would indicate. The reason given, as I remember the testimony, that he knew that I was strongly anti-British—I do not think I have ever had a conversation with Admiral Sims on the question of how I felt toward the British. The feeling that I had at that time was one of enthusiastic cooperation and a feeling of pride.

The CHAIRMAN. Have you ever had conversations with other officers about your attitude toward the British?

Admiral BENSON. I have, in certain respects. I often speak, and, for instance, since the war particularly, I have had very decided feelings with regard to the question of our commercial competition. Not otherwise. And I deny now any unfriendly feeling.

The CHAIRMAN. You had no unfriendly feeling—

Admiral BENSON. No, sir; I did not.

The CHAIRMAN (continuing). At any time during the war?

Admiral BENSON. No, sir; absolutely not. To the contrary, and I state that it places me in this embarrassing situation. In my conversation with the British high officials it was, I said, a source of personal gratification to me that the two services were fighting side by side for the betterment of mankind, and so on.

The CHAIRMAN. The committee does not want to treat you in any way unfairly, Admiral. We want to give you every opportunity to answer.

Admiral BENSON. I wanted that brought out, that it has embarrassed me. It makes it practically impossible for me to ever visit Great Britain again in the way that I would like to. I have some very intimate and very dear friends there. The British Government has seen fit to decorate me with one of its principal decorations. And I hope that it will be appreciated, the position that I have been placed in.

The CHAIRMAN. Were your instructions to Admiral Sims calculated to impress him with the fact that we would fight against Ger-

many, and that we would hit hard and quickly as soon as we entered the war?

Admiral BENSON. I did not consider that necessary. I do not think I gave him any such instructions, Mr. Chairman.

The CHAIRMAN. Was the condition of the Navy as to personnel at the time of our entrance into the war satisfactory?

Admiral BENSON. No, sir.

The CHAIRMAN. From your knowledge of the Navy and of naval affairs, do you think that the Secretary of the Navy, in the years just before we entered the war, made the representations to Congress that he should have made concerning the condition of the Navy as to personnel?

Admiral BENSON. No, I do not think he did.

The CHAIRMAN. In submitting plans preparing the Navy for war, did you ever find difficulty in getting the Secretary to take favorable action?

Admiral BENSON. Well, that is a rather sweeping question, Mr. Chairman. I think this, that the Secretary sometimes took a good deal of time in his deliberations, and there were times when he did not approve of all of the recommendations that were made to him; but just what they were now I would have to refer to the records to determine, and I do not think that even then I could tell just which ones he did not approve and which ones there was delay on. I always felt, however, that the Secretary was weighing the questions carefully, and I can say very decidedly that I believe that in any delay or declination to approve plans or policies or whatnot, he was carefully weighing the whole situation, and that he acted in accord with what he thought was in keeping with the general policy that was to be pursued at the time. I will add that there was never—I do not believe there was ever—any intentional or deliberate delay or refusal.

The CHAIRMAN. Then would you say that the Secretary always acted promptly in approving the plans and policies that your office submitted to him?

Admiral BENSON. I would not say so, and I do not think he did, always.

The CHAIRMAN. Some of the witnesses have testified that in dealing with the Secretary they found a disposition on his part to procrastinate. The other day Senator Pittman objected to that form of question, and I put in the record statements of witnesses to which I assumed I had referred.

Senator PITTMAN. I will state also, since you call attention to what I protested against, that the cases you put in the record were in regard to certain particular instances, and not with regard to his general action. I still contend that it does not in any sense prove the contention you were trying to establish, that the Secretary was guilty of general procrastination.

The CHAIRMAN. Would you like to have me put the same references in the record at this point? It seems to me it would be simply encumbering the record.

Senator PITTMAN. It would. I have only stated you were drawing certain conclusions, as a foundation for the question, and I deny the conclusion.

The CHAIRMAN. I will ask the stenographer to read the question I asked the admiral.

(Part of the last question by the chairman was read by the stenographer as follows:)

The CHAIRMAN. Some of the witnesses have testified that in dealing with the Secretary they found a disposition upon his part to procrastinate.

The CHAIRMAN. Did you find any such disposition in your dealings with the Secretary?

Admiral BENSON. I do not think you could put it in the way of a procrastination. I do think that the Secretary frequently delayed action on matters that were put before him; but I think it was almost invariably due to desire to give it careful consideration, and probably to consult with other people as to the best way he should act on the particular thing. Undoubtedly he was given to a certain extent to that method of operation, just as one man differs from another in the methods that he pursues, whether he is of quick decision or slow, and so on. But, as I have said, I do not think it was ever prompted by any deliberate intention to delay action or to deliberately block any effort that was being made for the best interests of the service or the country.

The CHAIRMAN. You never, in your dealings with the Secretary, found a disposition to pigeonhole certain matters and put off dealing with them?

Admiral BENSON. Certain matters were put off—were pigeon-holed; yes, they were.

The CHAIRMAN. Certain matters that it would have been much better to have taken up promptly?

Admiral BENSON. In my opinion; yes.

The CHAIRMAN. And you were not given the reasons for the pigeon-holing of these matters—any satisfactory reason?

Admiral BENSON. Not always; no. I always assumed that he had his own reasons for it, and as he was the responsible head of the Navy, I did not always seek reasons for it, sir.

The CHAIRMAN. But did it not occur to you that in some cases they were simply being let slide?

Admiral BENSON. I think in some cases they were let slide; yes.

The CHAIRMAN. Was there a sound, complete, and well-defined plan for conducting this particular war ever drawn up before war was declared, so far as you know?

Admiral BENSON. For this particular war, I do not think so; only such general plans or policies as I have already outlined.

The CHAIRMAN. When was it?

Admiral BENSON. There was a plan submitted to the General Board, the one that has been referred to in the evidence of some of the other witnesses as having been lost, and as I said yesterday, Mr. Chairman, my duties covered the whole field, and when a certain line of policy was to be pursued, I discussed it with my aides and others, and left the question of plans to be drawn up by them, and as there were certain phases of it that it was almost impracticable to draw up very definite plans, and the people concerned were kept sufficiently well informed as to what we were doing and our policies, the weekly conferences with the Secretary of the Navy in his office and the chiefs of bureaus and heads of offices kept everybody well posted up to date, as to just what our policies were and what we were doing, so that there never was any question as to what our policies and ideas were, and there was no question in carrying them out.

The CHAIRMAN. But there was no definite war plan drawn up? Admiral BENSON. No definite war plan drawn up on paper; no, Mr. Chairman; there was not.

The CHAIRMAN. There was later on, was there not?

Admiral BENSON. I can not say whether there was or not?

The CHAIRMAN. Did not Capt. Laning draw up such a plan?

Admiral BENSON. I could not say, now, whether he did or not.

The CHAIRMAN. Was not that in your office?

Admiral BENSON. He was in my office at the time; yes, sir. I have read the evidence, and it states that he did submit one, but I can not recall it now. It would be impossible for me to recall it.

The CHAIRMAN. Was it ever used?

Admiral BENSON. That I can not say, either. As I said just now, I had charge of the general field and gave orders to carry out such plans as were drawn up as were material, to execute the policies and ideas that I had and intended to carry out, and were carried out. Whether they were carried out exactly along the line of the plan drawn up by Capt. Laning or anyone else, I could not state at this time.

The CHAIRMAN. As Chief of Operations you know what plans were used, do you not?

Admiral BENSON. I could not tell you now, Mr. Chairman, just what plans were drawn up. All I can say is that I had charge of the general field of operations, and I kept in close touch with every movement, and gave the necessary orders to carry out those policies, and to execute what would have been a plan if it was drawn up; but as to whether it was drawn up on paper or not, I could not say. All I can say is that we accomplished the results we started out to accomplish.

The CHAIRMAN. And you are not familiar with the details of Capt. Laning's plan?

Admiral BENSON. I am not, sir.

The CHAIRMAN. And you do not know whether or not it was the plan adopted by the department?

Admiral BENSON. No, sir; I do not.

The CHAIRMAN. Did the Secretary of the Navy direct that a well defined plan be drawn up before the war started?

Admiral BENSON. I do not think he did. I can not recall his having done so.

The CHAIRMAN. You feel that the Secretary of the Navy by every test, and by the energy and foresight he displayed, had a tendency to put a push and drive into the Navy that it should have to win a war?

Admiral BENSON. I think from that particular viewpoint, he did all that could have been expected of him.

The CHAIRMAN. Before the commencement of the war and during the war?

Admiral BENSON. I think he showed efficiency, and always pushed everything as much as he could; that is towards the spirit of trying to do the right thing. As I said in the beginning, I had a free hand except in certain minor things and questions involving appropriations, and things of that kind; but so far as the operations were concerned, there was no interference.

On the other hand, more than once the Secretary sent for me and spoke in regard to various operations and insisted that he must use every effort to carry them out successfully and energetically, and I believe that he did do in that respect everything that could have been expected of him.

The CHAIRMAN. This was after we had gone into the war.

Admiral BENSON. After we had gone into the war, yes.

The CHAIRMAN. You do not feel that he took such an attitude before the war, do you?

Admiral BENSON. I think he took the attitude that everything we had should be as nearly as we could keep up to the proper standard of efficiency and preparedness as the circumstances would permit.

The CHAIRMAN. That is in general, not with respect to this particular war?

Admiral BENSON. In general and not with regard to this particular war, no; I can not say that he did.

The CHAIRMAN. And after the war started, you felt that he did everything in his power to drive us to an offensive war, do you?

Admiral BENSON. I do not know just how you want to use that word "offensive," there, Mr. Chairman. You discussed the question that our attitude was defensive, and I would like to be a little careful.

The CHAIRMAN. Did he not advocate an offensive war?

Senator PITTMAN. I suggest that the writer of those questions ought to be more definite.

Admiral BENSON. I will state that in this way; he did everything he could to carry out the policies that we decided to carry out. Now, whether you consider that an offensive war——

The CHAIRMAN. What push and drive did he put into all of his actions; whether he tried to drive the Navy along toward an offensive war rather than a defensive war?

Admiral BENSON. I can probably answer that in this way; that I felt that the Allies were not making a sufficiently active offensive against the enemy, as far as the Navy was concerned. We felt that the enemy's seaports should be attacked, and we felt that very strongly, and tried to impress it in various ways on him, and I do know that the Secretary was heartily in sympathy with that and often referred to it. He sent for me more than once to know if it was not possible for us to do something in a more active way to send our ships over there; if we could not send some of our older battleships to attack the ports where the German submarines were coming out of. More than once he spoke to me on that subject; that I can recall very distinctly.

The CHAIRMAN. That was directly against the Allies?

Admiral BENSON. That was directly against the enemy.

The CHAIRMAN. I say, that was directly against the plans of the Allies?

Admiral BENSON. We never had any plans from the Allies at that time. I do not think we ever got any plans from the Allies whatever, that I recall, until we sent our planning section over there, which I arranged for when I was in London in 1917.

The CHAIRMAN. It was directly against the recommendations which were made by Admiral Sims after his consultation with the British Admiralty, was it not?

Admiral BENSON. You mean against his recommendations?

The CHAIRMAN. Yes; this plan of attacking the enemy's ports.

Admiral BENSON. They did not think it practicable. We did not agree with them about that. We did not agree with Admiral Sims, or with the British, in that matter; never did fully agree.

The CHAIRMAN. And later on you, I think, acknowledged that you had been wrong on that, did you not?

Admiral BENSON. When I went to London, as I stated yesterday, I had a conference with Admiral Jellicoe, the First Sea Lord, and then he told me of a plan that they had, which he went over very carefully, to carry out this. I told him how we felt. For instance, I think they may have felt that I was carrying the point too far in urging offensive operations before I went over there. I could not understand why we did not take more offensive action, and when I went to London he showed me this very secret and confidential plan which we went over, and in which I agreed a certain element of our forces should be utilized in carrying it out.

The CHAIRMAN. That plan was not carried out, was it?

Admiral BENSON. I do not think it ever was fully carried out. Things developed later on, particularly with regard to certain schemes that they had for aircraft, that practically made it impracticable.

The CHAIRMAN. So that the ideas of the Secretary, as you have given them, about attacking the enemy ports, were not directly in line with the recommendations made by the British through Admiral Sims, and which were afterwards——

Admiral BENSON. No, sir; on the contrary they are decidedly more active and decidedly more offensive.

The CHAIRMAN. That is, they are not in line with the ideas of the French or the British?

Admiral BENSON. No, sir; they were decidedly more active and more offensive.

The CHAIRMAN. And they were dropped?

Admiral BENSON. Well, they were never carried out. Of course in the spring—in 1918 Admiral Keyes later on attacked Zebbrugge. That was a long time later, though.

The CHAIRMAN. In the first few months after the war, did you find any difficulty in getting the Secretary to ask Congress for funds to provide certain types of vessels needed in the war?

Admiral BENSON. I do not think there was any difficulty at all. I think that the only question that there was much delay about—and I do not think that was caused by anything except a final decision as to just what type would be best suited for the purpose, whether destroyers or chasers and other types, and there were recommendations made with regard to destroyers, for quantity production—I think Admiral McKean suggested one plan about getting them more quickly. But when that matter was referred to the technical bureau chiefs, the question of machinery and also the fact that we felt that only certain yards could do that work satisfactorily, were considered, and the Secretary after consultation with me and with the bureau chiefs, decided on the type that we would build, and then when that decision was made, the construction, as I feel, was pushed with all possible energy.

The CHAIRMAN. Do you recall a letter to the Speaker of the House about this matter?

Admiral BENSON. No, sir.

The CHAIRMAN. Written by the department, in any way?

Admiral BENSON. I do not, sir.

Senator PITTMAN. Have you the letter there, Mr. Chairman?

The CHAIRMAN. No.

Senator PITTMAN. If you have, I suggest that the proper way to examine the witness is to show him the letter.

The CHAIRMAN. I have not the letter. You do not recall any such letter?

Admiral BENSON. No, sir.

Senator PITTMAN. Have you ever seen that letter, Mr. Chairman?

The CHAIRMAN. I have not. I am not saying there was such a letter. I am simply asking the Admiral if he knows anything about it.

Senator PITTMAN. I would like to know if the committee knows anything about it.

The CHAIRMAN. Yes.

Senator PITTMAN. I think the person who is preparing those questions ought to be fair with the committee and give the committee the information, themselves.

The CHAIRMAN. I think the committee can handle that matter without outside help.

Senator PITTMAN. I of course realize that I am on the outside, but I am speaking of the right to put the question. I realize I am trying to get the information, and the Admiral who is writing those questions probably has some purpose in it.

The CHAIRMAN. If the Senator will recall the debate in Congress at an early stage in the hearings, he will remember that the committee asked for counsel to assist in prosecuting this investigation, and he will recall that the Senate did not allow counsel. Under the circumstance, I think it is very proper for the committee to get all of the assistance that it can get in framing questions to be put to the witnesses; and unless I am entirely wrong, the Senator has also asked questions in the framing of which he has been assisted by outside parties. Possibly I may be wrong.

Senator PITTMAN. I will state to the chairman that there are very few questions that I have ever asked that have been framed by any outside party. In fact, I have never asked a question that has been framed by an outside party. Not that they have not been submitted to me, but I have felt that the information that I desired to get could better be deduced by the interrogations that I put.

Now, the Senate did refuse this committee counsel, for the obvious reason that this was an investigating committee, or supposed to be, and not a prosecution. The will of the Senate has been avoided, apparently, by the committee not having counsel to prepare its questions but an admiral or some one of that type to prepare these questions, which the chairman is laboriously reading every day, and has been for a long period of time.

The CHAIRMAN. I think if the Senator will read the record he will see that most of the questions are not in any way prepared.

Senator PITTMAN. What I am objecting to is the repetition, the long delay, and the tremendous expense that is being involved in the reading of questions that are fired up here by messengers every day; and it is apparently not to get any information, because it is a duplication of what has been gone over.

The CHAIRMAN. I will ask the Senator if there is not a representative of the Navy Department sitting near him at this time, prepared to assist him with questions to be asked?

Senator PITTMAN. Undoubtedly, prepared to assist me; but I do not remember ever having asked a question that he ever prepared; because I feel as competent to propound questions as any one that happens to be here.

The CHAIRMAN. Then does the Senator think that the department should go to the enormous expense of keeping this man here to assist him with perfectly useless questions?

Senator PITTMAN. I do not think he is here for the purpose of assisting the Senator from Nevada with questions. He is here possibly for the purpose of ascertaining what testimony might be given here, as the Secretary may possibly be required to answer a great many questions, and it certainly will facilitate the examination to know what matters have come out in this manner.

The CHAIRMAN. Are there not certain officers of the Navy who have already testified as witnesses, who are being kept here in Washington at the present time to assist in this investigation?

Senator PITTMAN. Undoubtedly. It happens that the admiral and the captain who have been here the whole time have a more general knowledge of the facts than anyone else around here; and if our object was to bring out information, we would be delighted to have them here at all times.

The CHAIRMAN. I am not making any complaint about their being here, but I do not think the Senator can make complaint about our getting assistance from outside sources in carrying on the investigation, and we propose to do so.

Senator PITTMAN. The idea is this, Mr. Chairman, that this hearing has been dragging on three or four months, and I am satisfied that neither the chairman nor any other member of this committee would pursue this policy of asking over and over and over again the same questions if he was conducting it himself, and if he were not simply reading questions prepared by somebody.

The CHAIRMAN. The Senator knows very well we are not conducting it in that way. There have been a number of questions suggested by outside parties, and there will be from now on. That is simply used as a guide in asking questions, as the Senator will find if he reads the record. I do not know whether he does so or not.

Senator PITTMAN. I hear enough without reading any more of it.

The CHAIRMAN. Then you have no recollection, Admiral, of any such letter to the Speaker of the House?

Admiral BENSON. No particular letter. A number of letters were written, and I can not recall any particular one.

The CHAIRMAN. Did the Secretary at any time delay action or refuse to take action on matters that you considered essential for preparing for war?

Admiral BENSON. I do not believe so, sir.

The CHAIRMAN. Do you know anything about the difficulties with the 14-inch shell?

Admiral BENSON. I do not recall in detail. There was some delay. I think it was finally approved.

The CHAIRMAN. That is what I asked you, if there was delay.

Admiral BENSON. As I said just now, he did delay, in a way, to go into the subject thoroughly. I understood you to mean a determined delay or refusal, in that sense, of trying to retard the accomplishment of a desirable end. That is what I thought you meant, Mr. Chairman, when I said he did not.

The CHAIRMAN. Then there was a considerable delay in regard to the 14-inch shell?

Admiral BENSON. I think there was, and it was in order to thoroughly investigate the question. As I remember it involved some contracts abroad and also in regard to price, but I am now simply speaking from memory and giving the impression that I have, and not otherwise.

The CHAIRMAN. And you do admit that there was a considerable delay?

Admiral BENSON. I think there was. I appreciate the fact that I am under oath, sir, and I want to be as particular as I can that I do not make a statement that is too positive, and my memory is not too clear.

The CHAIRMAN. In your long association with the Secretary of the Navy did you ever see him when he could not grasp the idea of war or understand the responsibility or the duty of the Secretary of the Navy in preparing for war?

Admiral BENSON. Is it necessary for me to answer that question, Mr. Chairman? It seems to me that is a criticism of the character, and of the head of the service, and of a member of the Cabinet, of a kind that, as a naval officer, it is hardly proper to express my views on.

The CHAIRMAN. Of course the committee has a right to require you to answer any questions, but we do not insist on it.

Admiral BENSON. If you require me to answer it, I will have to answer it, but I would beg to be excused from doing so.

The CHAIRMAN. I will not. Could the Secretary at any time have given you more assistance and support in carrying out the plans of your office for war?

Admiral BENSON. I think if he had felt differently he could; that is, before the war particularly. I think the Secretary entered as whole-heartedly and as conscientiously and energetically into everything connected with the war, after it was declared, as could possibly be desired.

The CHAIRMAN. Is it not your opinion that the Secretary could and should have presented to Congress the condition of the Navy in the years just before we entered the war, in a different way from the way he did present it, in order that Congress might be more fully and correctly informed as to the conditions in the Navy?

Admiral BENSON. My opinion is, Mr. Chairman, that he did remarkably well, very much better than had been done in the previous years; and he kept in close touch with the naval committees of the House and the Senate, and while he did not always ask what was recommended by the General Board and by others, I think he usually recommended and secured everything that he could possibly have secured from the Congress.

The CHAIRMAN. Then you do not feel that he could have presented it more fully to the Congress?

Admiral BENSON. He could have presented it more fully; yes, sir.

The CHAIRMAN. Do you not feel that he should have presented the question of personnel more fully?

Admiral BENSON. Yes; I think the question of personnel should have been. I think he could have. And as I said just now, I think it should have been done.

The CHAIRMAN. Then, on the whole, you think he could have kept Congress more correctly informed of conditions than he did?

Admiral BENSON. Well, that is a question that is a little hard to answer—just what could have been done and so on. As I said, if he had wanted to, if it had been consistent with his views, and policies, he could have.

The CHAIRMAN. He could have recommended a great deal more, and that there could be no question about? Certainly he could have made fuller recommendations about personnel?

Admiral BENSON. Certainly; there is no question about that. Any one can make more than they do.

The CHAIRMAN. But do you not think he should have made more?

Admiral BENSON. I think he should have made more in regard to personnel, Senator; yes. I do not believe I could conscientiously say that he should have made fuller recommendations in regard to material. There may have been some questions in regard to bases or things of that kind, that I think ought to have been urged more strongly—storehouses and matters of that kind; but as I say, he was in close touch with the committees of Congress, and was following a definite policy.

The CHAIRMAN. Now, Admiral, what was the general policy governing the Navy Department in regard to participation in the war at the time of our entry into the war?

Admiral BENSON. It was to do everything we possibly could to assist the Allies.

The CHAIRMAN. That is, to cooperate with the Allies?

Admiral BENSON. To cooperate with the Allies to the fullest that our facilities would permit.

The CHAIRMAN. There were no plans, you say, in existence, other than ordinary prewar mobilization plans?

Admiral BENSON. None other than what I have stated, sir.

The CHAIRMAN. And after the war had started and we were to cooperate with the Allies, what was the machinery by which plans of cooperation could be carried out?

Admiral BENSON. I do not exactly understand the Chairman's question, as the question of plans has been frequently referred to.

The CHAIRMAN. I am referring to plans for cooperation with the Allies after war had been started. Through what organization, through what machinery in the department, were these plans for cooperation drawn up?

Admiral BENSON. You mean definite plans written down on paper?

The CHAIRMAN. Definite plans for cooperation with the Allies.

Admiral BENSON. As I understand it, you want to know just who drew up definite plans and put them on paper, covering all the different details.

The CHAIRMAN. Yes; for cooperation with the Allies.

Admiral BENSON. In my office, the Office of Operations, the policies and general way—call it a plan or what you may—that was drawn up in my office, and the information given out to the people concerned,

for their execution. If you remember, we sent Admiral Sims abroad to get information as to how best to cooperate in case we went into war, and to get the idea of the actual conditions; and in addition to that there was a mission that came here, sent by the British Government, in the early part of April.

Then later on, when Mr. Balfour came and the British and French sent their missions over here with their naval and military representatives.

They had their naval attachés here. We gave the attachés of the Allies offices in the department, gave them free access to all, and had daily conferences with them, and we were seeking information from every possible source. We had our attachés abroad in addition to Admiral Sims in London, and our actions and operations were governed by the situation as it developed from day to day, with the determined and most earnest effort on the part of everybody to cooperate to the very fullest with the Allies in the prosecution of the war.

The CHAIRMAN. Did the planning section have anything to do with the plans for cooperation?

Admiral BENSON. As I stated yesterday, Mr. Chairman, there was no regular planning section in the Office of Operations until very much later. We had one or two officers there to try and gradually build up a planning section. We were so short of officers that it was almost impossible to organize a planning section. We were so very hard up for officers and the demand for them in other places was so great that, as I stated yesterday, I did not carry out the law of Congress in regard to my office. I did not feel that I could, because the situation was so urgent and so necessary in every direction that I did what I thought was best for the situation as it developed.

The members of the Senate and House Naval Committees knew the conditions, and that I was not carrying out the law of Congress fully in that respect, but that I was building up an organization as rapidly as possible, and as rapidly as I could get officers to take the various duties. I tried to replace the regular officers with reserve officers as fast as I could, so that every regular officer could be detailed for active duty with the fleet or in training reserves or in other places. I feel, Mr. Chairman, that a great deal of emphasis has been laid on the question of plans simply because the situation as it existed and as it was developed and carried out is not understood, and that this question of plans which, to the ordinary mind, is rather more or less indefinite, has been unduly emphasized by Admiral Sims in his letter.

The CHAIRMAN. There was an emergency appropriation made immediately, or shortly, prior to our entrance into the war, was there not?

Admiral BENSON. In February, I think, sir.

The CHAIRMAN. Did you give any instructions in March, 1917, for the preparation of a plan for the utilization of this emergency appropriation?

Admiral BENSON. I can not recall whether I did or not.

The CHAIRMAN. You do not know whether you did?

Admiral BENSON. I do not, sir.

The CHAIRMAN. If you did give any such instructions, are they not available in the department?

Admiral BENSON. I do not think I gave any written instructions.

The CHAIRMAN. And you do not recall giving any instructions?

Admiral BENSON. I do not, sir.

The CHAIRMAN. Was not something done about utilizing this emergency appropriation?

Admiral BENSON. The question was always under discussion, and we were carrying out the policies and ideas—call it plans or whatever you may. But as I understand a plan and its use, I can not recall definitely. We had, as I said before, memoranda. We had frequent conferences and discussions, and my assistants were constantly submitting recommendations—I suppose would cover your idea of a plan to mean—and all that. But to say that just at any definite time I gave any order for a definite plan or anything of that kind, I simply can not recall it. I do know that everything was moving along uniformly, and that when the war broke we were prepared to carry out the part we could fully with all we had, and did carry it out.

The CHAIRMAN. I assume that when this appropriation was made and you were informed that it was made, you laid out some plan, did you not, on which to expend it?

Admiral BENSON. Yes; we had very definite policies; but whether we just simply drew up a plan, as I understand, Mr. Chairman, I can not say just now whether it was all written out and spread out where everyone could see. We did know what we were going to do and how to do it, and everyone concerned with the policy was properly informed.

The CHAIRMAN. Do you recall what arrangements you made for utilizing this emergency appropriation?

Admiral BENSON. No, I can not.

The CHAIRMAN. Have you any way of getting the information so that you could give it to us?

Admiral BENSON. I do not think I could, sir. I do not think I could.

The CHAIRMAN. Did you give any instructions before or immediately after our entry into the war for the preparation of plans for antisubmarine warfare?

Admiral BENSON. I think we had a very definite plan as to what would be done at all of our ports. For instance, as I stated yesterday with regard to defensive areas, and how we would station our different guns, where we would place nets, and everything of that kind; all of those details were carefully attended to, Mr. Chairman, and carried out.

The CHAIRMAN. Did you give instructions to anyone to prepare such plans?

Admiral BENSON. I do not know as I gave instructions to prepare such plans; but I gave instructions as to what to do, and those who were intrusted with the execution of those policies, I take it, prepared plans.

The CHAIRMAN. But you say you gave instructions what to do. Did you not have to have some plan before you did that?

Admiral BENSON. I left that to my subordinates, sir.

The CHAIRMAN. You left it to them to do or not to do. Did you not draw up some plans for taking care of that matter? It was certainly a very critical matter.

Admiral BENSON. As I say, as I understand plans, I can not tell you whether I gave them definite instructions or not. I kept them informed as to what my policies were, and left them to carry out the details of it. But to say that I directed them positively to definitely prepare plans, I can not possibly say.

The CHAIRMAN. Then was it purely a haphazard proposition on your part?

Admiral BENSON. No, it was not.

The CHAIRMAN. Was it not your duty as Chief of Operations to tell them to draw up some plans?

Admiral BENSON. It was my duty to handle the situation and to see that it was properly handled, and that the proper steps were taken to meet the situation, which I did.

The CHAIRMAN. Would not that involve a direction to them to draw up plans for meeting the submarine situation?

Admiral BENSON. Certainly it would, and I believe plans were drawn up to deal with it; but to tell you that I gave the direct order to do it, I can not.

The CHAIRMAN. If you did give such a direct order, would it not be in the records of the department?

Admiral BENSON. Not necessarily. I might have given a verbal order to Admiral McKean or to Capt. Pratt.

The CHAIRMAN. You do not remember whether you gave such an order?

Admiral BENSON. I do not.

The CHAIRMAN. Written or verbal?

Admiral BENSON. I do not. I do know the situation was properly and efficiently handled.

The CHAIRMAN. Were such plans prepared?

Admiral BENSON. I can not recall whether they were or not. I could not state that, whether they were in the form that I understand you want plans.

The CHAIRMAN. I would like to know whether there was any tangible, definite plan?

Admiral BENSON. All that I can tell you is that we had very definite policies. We knew what we had to accomplish. The instructions were given to the subordinates as to what we were going to accomplish, and how we were going to handle all the forces and all the facilities we had, and they were properly and efficiently carried out, and the purpose for which they were prepared was accomplished, and that was my duty; but as to going into the details—

The CHAIRMAN. But it is not giving the committee any information to state that it was properly and efficiently carried out. We want to know how it was properly and efficiently carried out.

Admiral BENSON. All I can say is to refer you to the results.

The CHAIRMAN. I do not think that always shows.

Admiral BENSON. That is the limit to which I can go.

The CHAIRMAN. Do you not think that the committee are entitled to information as to how it was done?

Admiral BENSON. That is all I have.

The CHAIRMAN. As Chief of the Bureau of Operations you must have all the records available, have you not?

Admiral BENSON. They are in the department, or should be.

The CHAIRMAN. Can you give the committee the plan, if any such there was?

Admiral BENSON. I will ask Capt. Pratt, if I may, because he was really in charge of that particular thing. May I ask to refer the matter to Capt. Pratt, because he was the one?

The CHAIRMAN. I will ask you to submit the plan to the committee if you can find it, and if not please inform the committee of that fact.

Admiral BENSON. I would like to say that I think all the necessary steps were taken. Whether plans were prepared or not, that I can not state definitely, under oath, that I gave any definite instruction in a definite way at a definite time, at this length of time. It would be impossible.

The CHAIRMAN. What definite plans were ever drawn up?

Admiral BENSON. I can not give you that information. I can not tell you that now. I assume that there were. I know that all that was necessary was done, and that is all I do know.

The CHAIRMAN. You do not know if such plans were drawn up whether they were ever put into execution or not?

Admiral BENSON. The purposes that any plan would have accomplished, were accomplished. I assume that as they went out, as the policies went out to my subordinates, what we had of a planning section drew up the necessary plans or memoranda or instructions, or whatever you wish to call them. I do know that the object for which we were struggling, was accomplished.

The CHAIRMAN. But without any initiative on your part or any information about whether it was accomplished?

Admiral BENSON. Mr. Chairman, all the policies of the operations were directed and initiated practically by me.

The CHAIRMAN. I am asking you how they were directed and initiated, and you do not give me any information about it.

Admiral BENSON. By instructions to my assistants and subordinates; and I can not give it in any further detail. I am sorry that I can not, but my memory is such, and the task that I had to perform was such, that I can not go into detail and give you these exact facts, under oath, and I have gone as far as I feel that I can.

The CHAIRMAN. What agreement did you reach with the British and French commanders in the western Atlantic during the early days of April, 1917?

Admiral BENSON. That we would be responsible for an area, I think it was from 50 degrees west longitude, covering the North Atlantic, taking in the Virgin Islands, and going then westward into the Caribbean, and then down to the north boundary of Columbia, including the Gulf of Mexico, of course; and then that we would hold cruisers in readiness to pursue raiders; in case one appeared in the North Atlantic, particularly in that area; that we would look out for an area on the east coast of Brazil, extending from 5 degrees south latitude and off the coast some distance—I have forgotten how far—and extending down parallel with the coast as far as the latitude of the mouth of the Rio de la Plata. And I also, as I recall it, agreed to send some submarines or vessels to Halifax in case they were needed. We agreed to send some small craft to the west coast of France, and also to send two colliers, I think it was, loaded with wheat and other material for the French government; and as I recall it, we agreed to let both governments have certain guns. The French, I think, we gave 100 6-pounders, or guns of small caliber, for their fishing fleet.

As I say, they requested two destroyers to be sent over, and we sent six, which left, I think, on the 24th of April, and got over there on the 4th of May. Whether we had any understanding about the conditions in the Pacific, I think there was some understanding, whether it is in the written memoranda or not I can not recall, as to the helping out in the Pacific. As you know, the British had a force—an antiraiding force, you might call it—operating on the west coast of South America particularly.

The CHAIRMAN. Did you comply with all the requests of these admirals?

Admiral BENSON. I think so; we did eventually. There was some delay in getting the small craft over to the French coast, and I do not think the submarines were sent to Halifax until some time later. In fact, I can not recall all the details about the submarines, because the understanding was that they would always be kept there in case of need, as I now recall it.

The CHAIRMAN. Did they take up the question of fighting the submarine menace?

Admiral BENSON. I do not think so, as I remember. I do not think that phase of it was brought up.

The CHAIRMAN. Admiral Mayo stated that they did.

Admiral BENSON. Well, maybe they did. I am simply giving you the best of my memory, sir.

The CHAIRMAN. You do not recall that from this meeting anything in particular was done about the submarine menace?

Admiral BENSON. We were doing everything we could to get small craft ready for them, and we were at that time practically using all of the small craft that were available to guard our own coast.

The CHAIRMAN. I say that from what happened at this meeting you do not feel that they made any particular recommendations about the submarine menace?

Admiral BENSON. The French were very urgent in their recommendations about our helping them out over there; and whether the question was broached as to whether we would later on send more destroyers or not, I mean whether they asked it or not, I do not know; but I do know that the decision was arrived at that we would send over destroyers as fast as they were ready to go over, which we did.

The CHAIRMAN. But you do not recall that any special stress was laid on the critical submarine situation that existed at the time?

Admiral BENSON. I think it was discussed, as to just what further action we were requested to take. I can not answer that, no. That was always uppermost, and I can not recall just when and where it was discussed. That was always uppermost, and was always being discussed by everybody.

The CHAIRMAN. Was it your impression that these allied admirals were prepared for the full measure of cooperation that the United States was prepared to give in fighting the submarines?

Admiral BENSON. I think so; but those things seemed to be most urgent then, as far as they were concerned, and the full and final policy of cooperation had not been decided on. We were approaching the subject as rapidly as we could, and that was one of the steps in the development.

The CHAIRMAN. Was Admiral Sims notified of the results of this conference?

Admiral BENSON. I think he was. I know that Admiral Browning sent a cablegram to the British Admiralty, and whether we sent one or not I would be unable to recall now, but Admiral Sims must have known of it.

The CHAIRMAN. But you do not recall giving him special information about it yourself?

Admiral BENSON. That I do not know. I can not recall those details.

The CHAIRMAN. Was he given any specific information about the department's plans during the first three or four months of the war?

Admiral BENSON. I think all those records have been submitted, Mr. Chairman, and I will simply have to go over the records to refresh my memory.

I feel this, that Admiral Sims was given all the information that it was necessary for him to have to properly perform his duties. He was sent over there to obtain information and to keep the department informed as far as he could, and naturally we would expect him to make such recommendations. Whether he was directly instructed to make recommendations, I could not say, because if Admiral Sims had any written instructions I never saw them. As I said earlier in this hearing, Admiral Sims was sent over more by the Secretary and not by me.

The CHAIRMAN. But in order to keep fully in touch with the situation, he should have been informed, should he not, of all the department's plans and policies?

Admiral BENSON. I think he got all the information he needed for the purpose for which he was sent over there.

The CHAIRMAN. But you do not know what information he got?

Admiral BENSON. Of course I could not tell just what information; but he was kept sufficiently informed; that is all I could say.

The CHAIRMAN. Did you give any general orders that he should be informed of every policy and plan that the department put out?

Admiral BENSON. No, sir; I do not think I ever did. What I said was this: Officers' messages were brought to me every morning, and it is possible I might have said, "Well, now, be careful that Admiral Sims is kept informed of whatever we do here as far as possible." It is very probable that I did. In the discharge of my duty I very probably did.

The CHAIRMAN. But you do not recall giving any such specific instructions?

Admiral BENSON. No, sir; I do not recall those things, Mr. Chairman.

The CHAIRMAN. Do you think he should have been kept in touch with the situation?

Admiral BENSON. Not any further than he was.

The CHAIRMAN. But you do not know just how far he was.

Admiral BENSON. He was sufficiently kept informed to satisfy the situation. I was the Chief of Naval Operations, and was responsible.

The CHAIRMAN. That is, in your opinion he was sufficiently informed, but just how much he was informed you do not know?

Admiral BENSON. Yes; but I was responsible for Operations and what was going on, and in my opinion as the responsible officer, with the responsibility which I had, I maintain that in my opinion he was sufficiently informed. It satisfied my requirements, and I think that was all that was necessary.

The CHAIRMAN. But how much that was you do not know?

Admiral BENSON. Just to what extent it was, I do not know. The details of it I can not say.

The CHAIRMAN. Simply, you felt that what you did was satisfactory?

Admiral BENSON. I feel perfectly satisfied of it; yes, sir; and I was the responsible party for it, and I assume and take all that responsibility.

The CHAIRMAN. A short time back you referred to plans for attacking enemy submarine bases. Does that refer to blockading the enemy's bases?

Admiral BENSON. I did not hear that last word.

The CHAIRMAN. Did that refer to blockading enemy bases?

Admiral BENSON. No; I referred more particularly to attacking them and trying to rake them out.

The CHAIRMAN. There was a department scheme, was there not, to blockade them by sending certain old battleships over and sinking them?

Admiral BENSON. That plan was submitted, I think, by Admiral Mayo when he went over. That was given up.

The CHAIRMAN. That was afterwards given up, was it not?

Admiral BENSON. Yes.

The CHAIRMAN. What was the general attitude of the department toward the recommendations made by Admiral Sims?

Admiral BENSON. To comply with them in as far as, in our judgment, they would accomplish the purpose we wanted to accomplish, consistent with the general plan or policy of aiding the Allies. He was given every possible assistance consistent with that policy.

The CHAIRMAN. Did he have the entire confidence of the department?

Admiral BENSON. He did. You said, "Did he have the entire confidence," did you not?

The CHAIRMAN. Yes.

Admiral BENSON. Yes.

The CHAIRMAN. Then why were the recommendations he made after conferring with the authorities on the other side not immediately adopted?

Admiral BENSON. Simply because the department did not consider that it was advisable and best to do it. Admiral Sims was not responsible for these things. He was only over there to get information and to give us the situation. He was not responsible for the final outcome of the situation, and we had a thousand and one problems here at home that we had to solve, and the whole field had to be gone over, and all the various elements had to be weighed, and the final conclusion arrived at; and in the final wind-up, the best distribution of material and personnel and everything else should be in accordance with that policy.

The CHAIRMAN. Were the home problems as important as the problems in the field?

Admiral BENSON. Whether they were as important or not, they had a decided bearing not only upon the home problems, but the home problems had a very direct bearing on the problems in the field.

The CHAIRMAN. Did you have any other information than that which you obtained from Admiral Sims about problems in the field?

Admiral BENSON. We got practically all of our information, except what may have come through the embassies and in different other ways; because Admiral Sims was in a position—well, we probably got some through attachés. When I went over in 1917, I put all of the attachés practically under Admiral Sims so that all information went through his office after that time.

The CHAIRMAN. Prior to that time was not the principal information you got about matters in the field gotten from Admiral Sims?

Admiral BENSON. That was our principal source, although we got some from the French and some also from the Italians. They had attachés in Washington, and we got some from them.

The CHAIRMAN. But the admiral was the principal source from which you derived your information, was he not?

Admiral BENSON. Oh, yes.

The CHAIRMAN. And he had your full confidence?

Admiral BENSON. Yes.

The CHAIRMAN. And in spite of that, some of his recommendations were not immediately followed?

Admiral BENSON. No; decidedly not.

The CHAIRMAN. They were, however, in almost all instances followed at a later period, were they not?

Admiral BENSON. I do not think all of them were.

The CHAIRMAN. The ones, at least, to which he has referred in his letter of January 7, 1920, were followed at a later period, were they not?

Admiral BENSON. Take the question of personnel; that was followed later on, because, as time went on and we got in trained reserves, for instance, we were able to give him more, but for the time being he did not get more because, in my opinion, I did not think that the distribution of officers could be very well changed then from what it was. Those things came to me, and I weighed the situation carefully, and I felt that the distribution of personnel that was made was for the purpose, for the cause that we had. The duties that were expected of Admiral Sims could relatively be performed with what personnel he had just as we were performing our duties here in Washington and elsewhere, in the battleships, and everywhere else, with reduced personnel. That was my opinion. That was my decision, and that was the action that was taken, and I am responsible for it.

The CHAIRMAN. You do not think that the admiral was furnished with sufficient assistance over there at the beginning?

Admiral BENSON. He was not supplied with all the assistance that it would have been desirable for him to have had, had we had a full complement of officers, and complete personnel. Under the circumstances I think he had all that we could give him.

The CHAIRMAN. Do you think that one assistant at the start was sufficient for him?

Admiral BENSON. As I say, I think under the circumstances, and for the purpose for which he was sent over there. Admiral Sims was

not sent over there to command a big force, or anything of the kind. He was sent over there to get information, and he being a flag officer, an aid was sent along with him, which is ordinarily the case. He had an attaché over there with the regularly organized force and office, and for the purposes for which he was sent over there I did consider that, for the time being, he had ample facilities.

The CHAIRMAN. In spite of his cables and letters of protest saying that he did not have sufficient?

Admiral BENSON. Absolutely. I do not admit that Admiral Sims had any right to insist on the department varying from its policies and decisions. All he had to do was to give us the information, and it was the department's function, which it exercised, to use that information to the best advantage, and that we did.

The CHAIRMAN. Even if thereby you could get fuller information?

Admiral BENSON. That was for the department to decide, and the department did so decide. Not that it might not have been well for him to have had it; but on the basis of the force we had, it was the best thing to do.

The CHAIRMAN. Which depended largely on this information which Admiral Sims was to secure and did secure?

Admiral BENSON. As I say, I think we met the situation as best we could. That covers as far as I understand.

The CHAIRMAN. You do not feel that one or two or three more officers could have been sent over to him immediately when he made the request for them?

Admiral BENSON. They might have been; but as a rule Admiral Sims nearly always asked for particular officers. He was more insistent on the particular officers, as I recall it, than he was on some additional assistance. Capt. Pratt was one of the officers he wanted. He was in my office. I was already terribly handicapped with the problems I had to solve, and to control the whole situation, and I did not let him go.

There were other officers Admiral Sims always wanted; and he always named the officer. He did not leave it to me or the Bureau of Navigation to send him such assistance as might possibly have been given him.

And later on, I decided to send him other officers that he did not ask for, which I understand did not meet with Admiral Sims's approval; but as the responsible officer, I summed up the situation and took the action that I did, to best meet it.

The CHAIRMAN. But of course, if he could not have Capt. Pratt Admiral Sims would not have liked to have some one to take the place of Capt. Pratt?

Admiral BENSON. Just as fast as the situation would permit it.

The CHAIRMAN. And it would have been a good thing if you could have sent them over earlier?

Admiral BENSON. To a certain number; not too many. I would not have always sent as many as he asked for, Mr. Chairman.

The CHAIRMAN. Well, when he had one and asked to have one more, you would have sent that, would you not, if you could?

Admiral BENSON. I shall never forget the impression made on my mind when I went in his office in London, compared with my situation at home.

The CHAIRMAN. That was when?

Admiral BENSON. In 1917.

The CHAIRMAN. What date?

Admiral BENSON. In November, I think, sir.

The CHAIRMAN. Showing that the department——

Admiral BENSON. I think that for the situation at that time, he was very well supplied. That was my impression.

The CHAIRMAN. Showing that by that time the department had realized that he needed more men, and sent them over?

Admiral BENSON. The department at all times had a realization of the situation, and did everything they could to meet it. I can not admit, Mr. Chairman, that Admiral Sims had any just cause for criticism of the Navy Department. Had he been familiar with the situation——

The CHAIRMAN. You can not admit——

Senator PITTMAN. Please, Mr. Chairman, let the witness finish his answer.

The CHAIRMAN. I think the witness has finished his answer.

Senator PITTMAN. No; he was in the midst of a sentence there when you interrupted him.

The CHAIRMAN. I will be very glad to have him finish.

Senator PITTMAN. As one member of the committee I am more interested in the admiral's testimony than I am in the other admiral's questions.

The CHAIRMAN. I think if you will listen to the questions and the answers, you will find that they will bring out some valuable testimony.

Senator PITTMAN. I am sitting here listening, and several times the Admiral has been interrupted right in the middle of a sentence. I think the record will disclose that.

The CHAIRMAN. Admiral, Senator Pittman wants you to finish this statement that you were making. I had no idea that you had not finished it.

Admiral BENSON. I say that I can not admit and do not admit that Admiral Sims had any just cause——

The CHAIRMAN. You have already said that.

Admiral BENSON (continuing). For criticism of the Navy Department for not sending him the proper personnel over there, and I question in my own mind whether he would have done it had he been fully acquainted with the actual situation that existed.

The CHAIRMAN. Whether he would have asked for men enough to carry out the work which he had to carry out?

Admiral BENSON. He would have appreciated the situation, I think, and not have been so insistent.

The CHAIRMAN. And would have given you less information on that account?

Admiral BENSON. I think he gave us all the information that we needed.

The CHAIRMAN. But his letters repeatedly referred to the fact that he was short-handed, and could not get what he wanted.

Admiral BENSON. Exactly so; but I think with what he had, he gave us all the information we really could have wanted. For instance, we never got a plan from over there; they never submitted a definite plan of action in any way to us, until we got our planning section over there, which I arranged for when I was over there, with

the British Admiralty. The question of an inter-allied naval council was initiated by me, and it was practically under my advice, and all, that that was formed. Admiral Sims came to me. I think I asked him if he attended the daily meetings of the British Admiralty, and he said no, but he would like very much to. I arranged all those details for him. I could have arranged for Admiral Sims to have had an office; as Admiral Jellicoe said he would build additional offices to the Admiralty to get them closer together; and a lot of things were of that character. I think we got all the information we really needed or could properly use; and as I said, I was the responsible officer, and I sized up the situation and made my decisions, and I hope that if Admiral Sims had known and appreciated the situation on this side, a great deal of this that he has complained of would not have been done.

The CHAIRMAN. Do you feel that Admiral Sims's recommendation about the battleships was acted on at once?

Admiral BENSON. No, it was not. That was another case in which I had the responsibility, and I assumed it, and I acted on my own judgment in that matter, and I felt that the responsibility resting on me for our own national defense was first. That was my duty, to safeguard America's interests. That was my first duty, regardless of any other duty, of humanity or anything else, and that was always the underlying motive in all the actions that I took.

Another thing, we needed the battleships on this side for training purposes, and to put the armed guards on board merchant ships, and for the general expansion of the Navy, in addition to the strategic, and future reserves that I have already referred to; and I felt that we could aid the Allies, aid the general cause better, and at the same time safeguard America's interests, by the course that I pursued; and I can only refer to the results as to whether my judgment was right or not.

It has been referred to and taken as a matter of fact, that when I went over there I realized the necessity for sending them over, and immediately did it, implying that my judgment had been wrong in the beginning. That is not the case. In my position it was necessary for me to view the whole world situation, not only what was going on at the time, but what might take place after the war was over, and I had in view the possibilities that might come after the war, the conditions that our Navy might be left in, etc.; and I did not feel that I would be warranted in leaving our Navy in such position that it could not look out for America's interests, unless the situation over there was very desperate.

Another thing, I always had this thing in mind. We were gradually getting our troops in France, and if a forced peace had been brought on, or if a complete defeat of the Allies had been accomplished, and our troops had been left in France and we had not sufficient naval force to protect their return to America, that would be unpardonable in me as the responsible naval authority, to allow such a condition to arise.

That has another very important bearing on this question, and it was only when I went to London and had close and intimate conferences with the British Admiralty, in which I advanced my views and my reasons, and with which they as I recall it were heartily in sympathy, and all, that I agreed to let them come over. And it was

for that reason, determinedly, that I did not send them over in the beginning. To begin with, I said that I would not under any circumstances send them until I got a statement from them that they thought it was necessary, and it was with that idea. That covers the whole situation of the battleships.

The CHAIRMAN. But had not Admiral Sims been having these same questions under discussion in conversations with the British Admiralty, and did he not have the same information that you got?

Admiral BENSON. He may have had the same information——

The CHAIRMAN. Wait a minute, Admiral, until I finish my question, please.

Admiral BENSON. I beg your pardon.

The CHAIRMAN. And did he not convey the results of his finding to the department before you came over?

Admiral BENSON. I do not think he was very urgent in regard to the battleships, as I recall.

The CHAIRMAN. But he had already recommended sending them over?

Admiral BENSON. He had said that they would like to have them. One reason was, they wanted to put certain of their ships out of commission, as they were short of men and officers; and for other reasons. That, I think, was one of the principal reasons.

The CHAIRMAN. And you give as one of your principal reasons for not sending them over earlier, that you wanted to have them on this side to protect our troops and bring them back after the war?

Admiral BENSON. I simply tried to cover the whole field, Mr. Chairman, as to why I came to that conclusion.

The CHAIRMAN. Was not that a little premature?

Admiral BENSON. I do not think so.

The CHAIRMAN. Just what did it refer to? It referred to bringing them over after the war, after Germany had whipped the Allies?

Admiral BENSON. Suppose that a forced peace had been made, forced on the Allies, and we had not taken part in it; or suppose that they had been defeated, and the British fleet had been defeated, with our troops in France, what would have been the result?

The CHAIRMAN. How would a forced peace have been brought about?

Admiral BENSON. That I do not know.

The CHAIRMAN. By the defeat of the Allies?

Admiral BENSON. I do not know. Suppose the British fleet had been defeated?

The CHAIRMAN. I do not think there was very much chance of that, was there, after we entered the war?

Admiral BENSON. There was in my mind a possibility of it; and it was that possibility that I had to face. I was the responsible party, and I appreciated the responsibility very clearly.

The CHAIRMAN. But it was not enough, in your mind, to justify you in sending additional ships over so that the Allies should not be defeated, was it?

Admiral BENSON. Later on, when I had assurances, I was willing to do it; but not until I had personally investigated. I did not have sufficient confidence in Admiral Sims's judgment and in his decisions to warrant me in relieving myself of that grave responsibility; and in

saying that I do not mean to reflect on Admiral Sims's judgment, but I mean to say that I was the responsible head, and mine was the responsibility that I could not pass to anybody else until I had investigated and satisfied myself of it.

The CHAIRMAN. If a forced peace had come during the early months after our entry into the war, would it not probably have come rather from the success of the submarine warfare than from any other way?

Admiral BENSON. I do not think so, sir.

The CHAIRMAN. You do not think so?

Admiral BENSON. No, sir; I do not.

The CHAIRMAN. You think it would have been more likely to have come from the defeat of their fleet by the German fleet?

Admiral BENSON. It might have come from their defeat in the field.

The CHAIRMAN. And you do not think that there was much prospect of its coming from the success of the submarine?

Admiral BENSON. I do not, sir.

The CHAIRMAN. You did not regard that as a very critical matter at that time?

Admiral BENSON. I considered it as a very serious matter.

The CHAIRMAN. But not a very critical matter?

Admiral BENSON. Not very critical. You might say that it was critical, but not a very critical matter.

The CHAIRMAN. Not even after Mr. Hoover had returned to this country in April, 1917, and had given his views about it?

Admiral BENSON. I considered it a very serious question, but I did not think at any time that that was going to settle the war; that that was going to end it.

The CHAIRMAN. Do you not think if it had been successful and they had succeeded in preventing supplies from reaching England, it would have stopped the war?

Admiral BENSON. It might have in course of time; but it would have been a good long while before it did. I do not believe they ever could have done it, in my professional opinion I do not believe they ever would have been able to have forced a peace by the action of the submarine.

The CHAIRMAN. Were you not at least alarmed when you found that they were sinking 800,000 tons of shipping in April?

Admiral BENSON. I was alarmed, because the situation was a very serious one.

The CHAIRMAN. But not critical?

Admiral BENSON. I said that it was critical, but not very critical. I do not say it was very critical.

The CHAIRMAN. And that was the attitude of the department over here, was it?

Admiral BENSON. That it was a very serious, critical situation, but they did not feel that that was going to——

The CHAIRMAN. Not that it would endanger the success of the war?

Admiral BENSON. It would very seriously affect the war; but that alone would not force an end of the war. I never felt so.

The CHAIRMAN. And that was the attitude of the department, was it?

Admiral BENSON. As I represented it.

The CHAIRMAN. Was that the attitude of the Secretary?

Admiral BENSON. I do not know what the attitude of the Secretary was.

The CHAIRMAN. You do not?

Admiral BENSON. I do not.

The CHAIRMAN. I take it you were in conference with him on such matters?

Admiral BENSON. That may all be, sir; but I could not state to you what the Secretary's attitude was.

The CHAIRMAN. Mr. Hoover had given his views on his return to this country, about the criticalness of the situation, had he not?

Admiral BENSON. I believe he had. I remember being present at the Council of National Defense in which Mr. Hoover gave one hearing, but I do not recall just how much emphasis he laid on the submarine. It was more in regard to the conservation of food, as I recall it, and the composition of our flour, and the percentage of bran, and so on, as I recall his hearing.

The CHAIRMAN. I think his statement shows that he had laid the matter before the President?

Admiral BENSON. Yes.

The CHAIRMAN. And I think other officers have testified that the department was fully cognizant of Mr. Hoover's opinions?

Admiral BENSON. The department, I think, was sufficiently informed as to the seriousness of the situation; yes.

The CHAIRMAN. And Admiral Sims had fully informed you of the criticalness of the situation, had he not?

Admiral BENSON. I think he had. I think he had done everything that could possibly have been expected to try to emphasize and insist on it in every way possible. I think he fully discharged his duty in regard to that particular phase of it.

The CHAIRMAN. Do you think that all available antisubmarine craft was sent to Europe as soon as they could have been sent?

Admiral BENSON. Strictly speaking, I think they were. There were a great many that we had use for over here, but I think as fast as we could get them ready, and in my judgment they could be spared, they were sent. I do not think there is any question about that, sir.

The CHAIRMAN. But you do not feel that if all the vessels had been ready when the war broke out, that that would be the case, do you?

Admiral BENSON. We might have sent more destroyers—a few more; but I doubt if I would have sent more destroyers, because I felt very strongly the necessity of safeguarding the battleships; The battleships were brought north against my recommendation, and I felt I had to look out for them.

The CHAIRMAN. But you could have sent gunboats?

Admiral BENSON. A very few, sir.

The CHAIRMAN. Such as were asked for?

Admiral BENSON. Yes; several of the gunboats that we had, if they had been ready, could have been sent over to Gibraltar and the other places. I think I have stated that.

The CHAIRMAN. Can you tell me if these vessels were not ready, why they were not ready?

Admiral BENSON. No, sir; I could not go into that now; I do not think.

The CHAIRMAN. You could not go into it what?

Admiral BENSON. I do not think I could, sir.

The CHAIRMAN. Was it the policy of the department to send all available light craft over immediately on the outbreak of hostilities?

Admiral BENSON. All; as fast as we could spare them and get them over there. That was our policy.

The CHAIRMAN. As fast as you could spare them and get them over there?

Admiral BENSON. Yes.

The CHAIRMAN. But not to send everything that you had?

Admiral BENSON. Not everything that we had; no. For instance, take, as I said yesterday, the seagoing tugs, for one thing that a great deal has been said about. It would have absolutely crippled, as I believe, and I think the chairman will bear me out, our people here; and we could not send those seagoing tugs. It would have crippled out munition plants in New England and prevented our getting a proper supply along the coast of coal, and I would like to recall the fact that the Navy practically saved the fuel situation from Cape Hatteras to Eastport, Me., in 1918.

The CHAIRMAN. I recall that there was a coal famine at that time.

Admiral BENSON. I think those tugs and those other vessels were more needed here, and did more good for the Allies by performing the service that they did here, than by going abroad. There was great pressure brought to bear on me both to keep them and to send them abroad, and in my opinion the best thing to do was to keep them here and to do what they did; that in that way they were doing good to the cause by sending them abroad; and I did not feel that it was up to me to take Admiral Sims's advice simply because he sent it. I did not think so then, and I do not think so now.

The CHAIRMAN. Now, in regard to the convoy system; there was some delay, was there not, in fully entering into that?

Admiral BENSON. There was some delay, yes, and there was some difference of opinion. That was a very important question to decide; and I do not hesitate to state my professional opinion now that in the light of subsequent events, had all of the merchant ships been provided with guns and with armed crews—proper crews for manning those guns—whether in the long run we would not have accomplished just about as much by sending those single ships over as fast as we could, as we did by the convoy. There is a very serious question there, Mr. Chairman, and I still have some doubt in my mind about it. We did eventually do it because the weight of opinion was decidedly in favor of it, and that was possibly one reason why we delayed in it; and, as I said yesterday, one of the principal means the German submarines had of sinking ships was by the bomb instead of the torpedo.

The CHAIRMAN. And do you feel that the adoption of the convoy system was a mistake?

Admiral BENSON. No, I do not think it was a mistake; but I say it is a question in my mind still whether they—of course, the convoy as carried out was very successful, but when you are dealing with

questions of that kind, technical questions, technical men differ in their viewpoints, and are bound to.

The CHAIRMAN. Were there not a great number of vessels sunk that had armed guards on them?

Admiral BENSON. I do not think a great many of them. But I think most of those were sunk in convoy or with convoy—a great many of them, at any rate.

The CHAIRMAN. Did they not mostly go in convoy?

Admiral BENSON. Yes.

The CHAIRMAN. Of course, the armed guard was no protection from attack by the submarine torpedo, was it?

Admiral BENSON. Very little, if any. But torpedoes do not always strike, sir, and vessels going singly could have better speed and better maneuvering powers. It is a fair question for difference of opinion, Mr. Chairman, and, as I stated, I have stated mine as a professional man of forty-odd years of service.

The CHAIRMAN. Do you not feel, in view of the fact that the convoy system was adopted later on, that it would have been a good idea to have adopted it earlier than we did? Did we gain anything by putting off its adoption?

Admiral BENSON. We did not put it off very long. The delay was immaterial, practically.

The CHAIRMAN. When did we adopt it in full force?

Admiral BENSON. I think in July. I think that was about the time. I do not think it was suggested much before that. I do not think there was any material delay in adopting it.

The CHAIRMAN. I think it was suggested early in June or May, was it not?

Admiral BENSON. Well, in May; and it was adopted in July; and as vessels were regularly running, I do not think that is such a material loss, sir.

The CHAIRMAN. You feel that the recommendations to adopt it, in view of the fact that you did adopt it later on, were justified, do you not?

Admiral BENSON. Yes; I will admit that they were justified; but I do not admit that the Navy Department, or that I as the technical head of it, would have been justified in adopting that or any other recommendation of such vast importance, simply on the recommendation of Admiral Sims, or anybody else, without due consideration.

The CHAIRMAN. Were not the recommendations of Admiral Sims, in the main, adopted in the end after a certain amount of delay?

Admiral BENSON. I do not recall just how many were or how many were not. But I will repeat, Mr. Chairman, that the department would have been derelict in its duty, in my opinion, even admitting that they were all sound and right, to have adopted recommendations without due deliberation and careful consideration of all the conditions surrounding the situation.

The CHAIRMAN. Even if they were in great need of ships at a very critical time?

Admiral BENSON. Even if the recommendations were absolutely perfect, we would not have been justified in doing it.

The CHAIRMAN. Can you specify any of these recommendations that were not later adopted?

Admiral BENSON. I can not pick them out now, Mr. Chairman; no, I can not. You see, I had to deal more particularly with the principles involved and the policies. It is impossible for me to deal with the details.

The CHAIRMAN. The hour of 12 o'clock has arrived and we will adjourn until to-morrow.

(Thereupon, at 12 o'clock m., the subcommittee adjourned until to-morrow, Friday, May 7, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

FRIDAY, MAY 7, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met at 10 o'clock a. m., in room —, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Fall, Keyes, and Pittman.

The CHAIRMAN. Senator Pittman, I understand you have a statement to make about certain questions that were not inserted in the record of day before yesterday.

Senator PITTMAN. Yes. In the first place I notice that there are certain purported accounts of the discussion of the matter on yesterday contained in the afternoon papers and the morning papers. I will state that I gave no interview to the press on the subject at all, and whatever statement they made with regard to it came from certain members of the press who happened to be present yesterday, when we were discussing this matter. Only one of the representatives of the press has spoken to me about it—Mr. Smith—and I told him then that I did not care to discuss anything connected with this matter until this morning.

The particular item in itself has no very serious bearing on what I had in mind. The cause of the discussion, however, in my opinion, involves a very serious matter, and that is an absolute, full, and correct report of everything that transpires at this hearing. The committee agreed unanimously that there should be no changes whatever in the proceedings as actually taking place at this hearing, except by the full consent of the committee, and at various times when witnesses desired to correct their statements, either by eliminating certain things or adding thereto, the chairman and myself have in each case discussed whether or not it was simply a change in verbiage and construction or whether it might change the possible interpretation of the testimony, and wherever it might possibly change the interpretation of the testimony we have refused to agree to any such change.

There was a portion of the colloquy between the chairman of this committee and myself omitted from the printed record of the proceedings of May 5. I was not aware of that fact before or during the proceedings yesterday, or I would have called attention to it. The chairman is perfectly right in the conjecture that I do not read those hearings that I listen to.

Upon leaving the chamber yesterday, in walking along the hall, I overheard the reporter in effect state to the chairman, as I understood it, "Shall I leave out that portion of the colloquy to-day, as I

did yesterday?" I will state that that was my first intimation that there was any portion of the colloquy on the preceding day left out. I immediately turned and asked the reporter if he had left out any portion of the colloquy on the preceding day and he said yes, he had, and that that was noted in the printed record.

I stated that I thought he had no authority, as an official reporter of hearings of the United States Senate, to leave anything out of the record. He stated that in these matters he had to take his orders from the chairman, or depend upon what the chairman desired in the matter. The chairman said, "I desire everything to go in the record"; whereupon the reporter said, "Well, I asked Mr. Henretty, your secretary, about it, and he said, 'Leave out that colloquy between the chairman and yourself,' and I did so, and noted it."

That was practically all that took place, except that I protested against anything being left out of the printed record, and denied the authority of the chairman to determine what is and what is not material to the proceedings.

I simply wish to say this, in repetition of what I said yesterday in the hall, that in my opinion it is not within the authority of any member of the committee to eliminate from the printed record any of the proceedings of this committee, whether it be considered material or not. There are other reasons for it than its materiality, as far as it affects this committee, that the press comments on whatever takes place here—

Senator BALL. May I ask you one question?

Senator PITTMAN. Wait until I finish this sentence. The press comments on what takes place here, and it would seem to be unfair to those who are reporting a hearing to report something that they may consider of interest, although it might not be very material, and then subsequently find that it was not available in the printed record. Personally I do not consider that the particular incident that brought up this discussion is very material one way or the other. It is not that at all; but we have simply got to establish as a committee whether or not the full proceedings are going to be accurately and truthfully transcribed by the reporter, or whether he is going to delete certain portions of it by instruction of the chairman or the secretary of the chairman or anyone else. I do not think it should be possible to do that.

The CHAIRMAN. I would like to make a statement.

Senator PITTMAN. I am willing to answer Senator Ball's question. I simply wanted to finish my statement in that connection, that was all.

Senator BALL. I will not interrupt.

Senator PITTMAN. No; I have finished.

The CHAIRMAN. I think, Senator Pittman, that if a majority of the committee should take the view that certain matters were to be cut out of the testimony they would have the right to see that that was done. This committee, however, has not done that.

Senator PITTMAN. I deny that right. I deny that the majority of this committee has the right to cut out any of the proceedings.

The CHAIRMAN. As I say, that is a question that it is not necessary to decide. This committee has no intention of doing anything of the sort and has not done it. As far as Mr. Johnson, the shorthand reporter, is concerned, I think he is quite justified in taking orders from the chairman of the committee.

In regard to this particular matter, at the adjournment of the meeting on Tuesday, Mr. Johnson asked me whether the colloquy between Senators, which has been referred to, was to go into the record. I told him that it was to go into the record. Later on, late in the afternoon, Mr. Henretty called me up, or rather my secretary called me up—I had left the Capitol—and told me that Secretary Daniels wanted to talk to me, and for me to call him up, and at the same time Mr. Henretty, who was in the office, spoke to me about this particular matter and asked me whether the colloquy was to go in. Yesterday when I was talking with you, Senator, I did not recall this talk with Mr. Henretty, as it did not seem of any particular importance. I told him to put in your questions, but as far as the subsequent colloquy was concerned, which was between you and Senator Ball and myself, which I had understood at the time was informal, that that should be left out. It did not seem to me to be of any material importance. It had not anything to do with any testimony given by any witness. It was simply a conversation between ourselves, and as I say, it did not strike me as of any particular importance. The record shows that there was such a colloquy, and the record, of course, is open to anyone to read. If anyone had objected or should object, it was open to him to get the testimony from the shorthand reporter and have it put in the record.

As the Senator knows, we have always talked over anything, and have not made any changes without general consent, and that could have been done. It simply did not strike me as a matter of any particular consequence. I do not think any such case has occurred in the course of the hearings, and there is certainly no chance for any such thing occurring again. It was possibly a mistake on my part, but it was simply because I looked upon it as of no particular importance.

Senator PITTMAN. I have no doubt at all that the chairman considered it of no particular importance.

The CHAIRMAN. I do not think you yourself considered it of any great importance—the actual matter.

Senator PITTMAN. Only to the extent that I have stated.

The CHAIRMAN. And I think it will be well to put it in the record.

Senator PITTMAN. But there is one thing, I think we should hold to our policy of compelling the reporter, as far as he is concerned, to transcribe whatever takes place, and then if there are any matters that we want to agree on eliminating from the record, that would be a matter for the committee.

The CHAIRMAN. I am entirely willing to subscribe to that, and I think it is a very good idea to do that. I think Mr. Johnson was justified in not doing so where I had told him to leave it out, and if there is any blame, it is entirely on my shoulders and not on his in any possible way.

STATEMENT OF MR. GRIFFITH L. JOHNSON.

Mr. JOHNSON. Senator, before you pass from that, may I make a little statement? Perhaps my view of it might be considered important.

The CHAIRMAN. I do not think it is necessary, unless you would like to.

Mr. JOHNSON. I would like to. You three gentlemen were sitting there, a majority of the committee. Senator Henretty called me up, or rather my secretary called me up—I had left the Capitol—and told me that Secretary Daniels wanted to talk to me and for me to call him up, and at the same time Mr. Henretty, who was in the office, spoke to me about this particular matter and asked me whether the colloquy was to go in. Yesterday when I was talking with you, Senator, I did not recall this talk with Mr. Henretty, as it did not seem of any particular importance. I told him to put in your questions, but as far as the subsequent colloquy was concerned, which was between you and Senator Ball and myself, which I had understood at the time was informal, that that should be left out. It did not seem to me to be of any material importance. It had not anything to do with any testimony given by any witness. It was simply a conversation between ourselves, and, as I say, it did not strike me as of any particular importance. The record shows that there was such a colloquy, and the record, of course, is open to anyone to read. If anyone had objected or should object, it was open to him to get the testimony from the shorthand reporter and have it put in the record.

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Senator BALL. Senator Pittman, do you mean that where a question is asked and the Senator who asks it realizes that it is not a proper question, that he can not then withdraw that question and have it stricken from the record?

Senator PITTMAN. That would depend entirely upon whether or not the committee would consent to that proposition.

The CHAIRMAN. I think the committee could take action on it at the time.

Senator PITTMAN. Certainly, but we did not take any action. In fact, I wrote a note and handed it across the table to Senator Ball. He wrote to ask me whether it should be stricken out, and I wrote a note and said "No; I do not like to have it stricken out after the question had been submitted and answered," and that ended it.

The CHAIRMAN. We will proceed with the hearing.

TESTIMONY OF REAR ADMIRAL WILLIAM S. BENSON—Continued.

The CHAIRMAN. Admiral, are you in accord with Admiral Sims's statement that the services of the United States Navy were of great value to the Allies in overcoming the submarine menace?

Admiral BENSON. I think they were of considerable value; yes, Mr. Chairman.

The CHAIRMAN. In what way?

Admiral BENSON. Why, by escorting our ships through the submarine zone—that was the principal way—and by our patrol along the west coast of France, and also by the force operating in the Adriatic and Mediterranean, around Gibraltar; and not only the

destroyers and chasers, but other small craft that we sent over, and later on by the submarines that we sent over. They were all of material assistance in overcoming that menace.

The CHAIRMAN. Then you feel that the services of the naval vessels which we sent abroad did assist in putting down the submarine menace.

Admiral BENSON. Very materially, if not putting it down, at least in curbing its efforts.

The CHAIRMAN. Do you feel that they in any way materially assisted in shortening the war?

Admiral BENSON. No; except in so far as they safeguarded the transport of troops and munitions and things of that character, and except in the North Sea barrage. I think that had possibly an effect on the general situation, but I do not believe anything tended to shorten the war except—that is rather putting it a little strong—what I mean to say is that I think what really affected the length of the war was the getting of American troops onto the western front, and anything that tended to assist in getting them there and keeping them supplied with the proper munitions and other necessities were the elements that really affected the final determination of the war.

The CHAIRMAN. Do you not feel that controlling the submarine menace had anything to do with making it possible for us to supply our army?

Admiral BENSON. I think I stated already that that was the work that they did, that they protected our vessels in taking over the troops and supplies, and of course that was necessary. Otherwise we would not have been able to have gotten our troops safely on the other side.

The CHAIRMAN. So it was a very material help in that respect?

Admiral BENSON. In that respect, very material.

The CHAIRMAN. And anything that we could have done to put down the submarine menace, so that we could get out troops and supplies over, would naturally tend to help shorten the war, would it not?

Admiral BENSON. So far as it would have increased the taking over of troops it would, but as a matter of fact we took over the troops without any harm to any of them. The Navy did not lose a single American soldier on their way over to France as I recall it.

The CHAIRMAN. Do you not feel that we did so, and that we took care of the supplying of those troops—

Admiral BENSON. I do.

The CHAIRMAN. Largely because we did have the submarine menace in hand?

Admiral BENSON. That is a matter of record, that we did.

The CHAIRMAN. And that we contributed largely to getting the submarine menace in hand?

Admiral BENSON. We did. In that particular respect I think we contributed very largely to it; but I would like to emphasize the fact that I think that is the only way in which we did contribute to the final ending of the war.

The CHAIRMAN. But you say they were of definite value—the vessels that we sent over?

Admiral BENSON. In that direction; yes.

The CHAIRMAN. But of what value were they if they did not help shorten the war?

Admiral BENSON. I say only in that direction.

The CHAIRMAN. But in that direction they were of definite value?

Admiral BENSON. They were of definite value, yes.

The CHAIRMAN. And the sooner we had the submarine menace under control, the sooner we could send our troops over, and the sooner we could supply them.

Admiral BENSON. No; I think we sent our troops over quite as fast as it was possible to do so, regardless of the submarine menace.

The CHAIRMAN. How about feeding them?

Admiral BENSON. We got the supplies to them also.

The CHAIRMAN. Because we had control of the submarine menace.

Admiral BENSON. In other words, I do not think that the getting of our troops onto the western front of France and keeping them supplied was in any way delayed by the submarine menace. I will put it that way.

The CHAIRMAN. And you do not think the assistance that was given in putting down the submarine menace had anything to do with getting our troops to France and keeping them supplied?

Admiral BENSON. I have said as plainly as I could, Mr. Chairman, that I thought we did very materially assist in that. We escorted our troop ships and supply ships, and got them over there, got the ships over there.

The CHAIRMAN. Did the checking of the submarine menace directly affect the getting of the troops and supplies for the troops over there?

Admiral BENSON. It was necessary in order to keep them down, and to protect the ships, and get them over there.

The CHAIRMAN. I did not quite hear that.

Admiral BENSON. I say it was quite necessary that we should protect the ships and keep the submarines down to the extent that we could get the ships over there safely, as we did.

The CHAIRMAN. And the fact that we had put down the submarine menace to a certain extent was what enabled us to do so, was it not?

Admiral BENSON. Yes; it was necessary to do that, but I do not admit that by what we did we by any means—that the end of the war would have been shortened if we had not done what we did do.

The CHAIRMAN. That is, if we had not gone in at all, or done anything to check the submarine menace?

Admiral BENSON. No, I do not say that. I do not think my words can be construed in that way.

The CHAIRMAN. I ask you the question.

Admiral BENSON. No, I do not think so.

The CHAIRMAN. I do not quite understand your point. You do think, do you, that if we had not gone in and done what we could against the submarine menace, we could not have gotten our troops over and supplied them as we did?

Admiral BENSON. I do not think we could, if we had not done what we did.

The CHAIRMAN. But if we had been able to do it at an earlier period, would not that have been of advantage?

Admiral BENSON. I do not think it would have affected getting our troops over.

The CHAIRMAN. Did we get all of our troops over ourselves?

Admiral BENSON. We did not.

The CHAIRMAN. During the first six months what proportion of our troops that were taken over to the other side did we carry over?

Admiral BENSON. That is a matter of record, I think. The table of the rates at which the troops were sent over, I think that is a matter of record.

The CHAIRMAN. Substantially what proportion of our troops during the first six months did we carry over ourselves?

Admiral BENSON. I think probably during the first six months the larger percentage were taken over by foreign ships, principally by the British.

The CHAIRMAN. The British?

Admiral BENSON. Yes.

The CHAIRMAN. During the whole war what percentage were taken over by our own people and what by the Allies?

Admiral BENSON. I think we took over about 900,000, as I remember, and altogether there were 2,300,000 taken over. That is my recollection of the figures.

The CHAIRMAN. Do you recall that Admiral Sims made recommendations about an advance headquarters of the department on the other side?

Admiral BENSON. Yes.

The CHAIRMAN. What was your attitude toward that recommendation?

Admiral BENSON. As I recall it, that we could not comply with that request. I felt and I still feel that Admiral Sims's interpretation of his mission was not in accord with the mission that the department intended him to perform or fulfill, and I think a great deal of Admiral Sims's feeling in this matter has been due to his failure to appreciate what his mission was.

Admiral Sims at first, as has been stated, was sent over to obtain information upon which the department could act. After that he was put in command of our forces over there, but at all times Admiral Sims was an assistant to the Chief of Naval Operations, with an office in London, simply coordinating and keeping a general supervision of the forces over there, seeing that the policies that the department decided on were properly executed, and as far as possible keeping in thorough touch with the whole situation in Europe and keeping the department informed in order that it might be able to formulate policies and give proper instructions; but it was never intended, nor did the situation permit, of Admiral Sims occupying any such position as he felt that he should occupy and seems to indicate in his letter to the department that he did occupy.

I feel that as Chief of Naval Operations I was responsible for the policies carried out in all parts of the world, in Europe as well as elsewhere, and I looked upon Admiral Sims simply as my representative to carry out those policies in European waters.

As is well known, our destroyers that were operating from Queens-town, while under the command and general supervision of Admiral Sims, the details were carried out by the British admiral, principally through our captain of the flagship there, Capt. Pringle, and I imagine that he, in close cooperation with Admiral Bailey, attended to those matters until the principal activity of our destroyers and small craft was shifted to Brest, on the French coast, when Admiral Wilson at

Brest, though nominally under Admiral Sims, directly carried out the management and general direction of our forces on the coast of France.

I did not get to Queenstown to go over the details, but that is my understanding of that situation, and I will say that when I was in France in 1917 I inspected the west coast of France, and not being satisfied with the conditions that I found there, and knowing that it would probably be decided to send our troops over in large numbers, prepared an organization for the west coast of France, in fact, our naval affairs generally in France, which as soon as I got back to the United States I cabled over, and it was that organization that was carried on throughout the rest of the war.

So that at all times Admiral Sims was as a rule, except from time to time when he may have visited the various stations, and went to Paris for consultation, was living in London, and the forces were being operated in the field in a manner very similar to the way in which they were being operated by my orders through others from Washington.

The CHAIRMAN. Was not Admiral Sims commander in chief of the forces on the other side?

Admiral BENSON. No, sir; he was not.

The CHAIRMAN. At any time?

Admiral BENSON. No, sir.

The CHAIRMAN. Who was?

Admiral BENSON. The commander in chief was Admiral Mayo, the commander in chief of the fleet. All of our naval forces were under Admiral Mayo, the commander in chief of the fleet, and he was acting under the Chief of Naval Operations, who was acting under the Secretary of the Navy.

The CHAIRMAN. Did he give orders direct to Admiral Sims?

Admiral BENSON. Just what orders he gave I do not know, but the situation was such that as a rule the orders were given directly from Washington to Admiral Sims by me, and as far as we could, I think we kept Admiral Mayo informed of those orders. Admiral Sims requested that he be given an independent command, and that was denied him, for the reason, which I think was explained to him, that it was intended to keep the fleet ready for fleet action, and it was therefore necessary for the commander in chief to be familiar at all times with the various elements of the fleet, their readiness for battle, and any service which they might be called on to perform.

The CHAIRMAN. Is it not true that Admiral Sims did not take his orders from Admiral Mayo?

Admiral BENSON. He would have to take any orders that Admiral Mayo gave him, sir.

The CHAIRMAN. But Admiral Mayo gave him practically no orders during the war?

Admiral BENSON. I doubt if he gave him many orders. As I say, the situation was a peculiar one, like this whole war was a peculiar one, and we had to meet the situation that confronted us.

The CHAIRMAN. I take it that Admiral Sims, if he was not commander in chief over on the other side, must have been subordinate to some one else. Now, to whom was he subordinate?

Admiral BENSON. He was subordinate to Admiral Mayo.

The CHAIRMAN. But you say that Admiral Mayo did not give him orders. He did not have to go to him for orders?

Admiral BENSON. He did not have to go to him. He had to take any orders that Admiral Mayo gave him.

The CHAIRMAN. But practically none were given?

Admiral BENSON. I do not believe very many were given, because the situation did not warrant it; but that is often the case in handling matters of this kind, as we did in many other cases during the war, where orders were sent out directly to one subordinate and then inform the immediate commander of that subordinate just what instructions were being given, so that he would be informed fully of the situation. That was done not only in the case of Admiral Sims and Admiral Mayo, but it was done with the convoying force; it was done with the forces under Admiral Caperton, and possibly with the forces under Admiral Fullam in the Pacific, and the Admiral in China, and everybody else. I did not hesitate to give orders directly to anybody, subordinate to one commander or another, where I felt it was necessary, and then inform the immediate commander of that subordinate what action had been taken.

The CHAIRMAN. If Admiral Sims was not commander in chief of the forces on the other side, what was his rank?

Admiral BENSON. His title was commander of the naval forces in European waters.

The CHAIRMAN. In what particular way was that different from being commander in chief of the naval forces on the other side?

Admiral BENSON. The commander in chief, by regulations and authority and act of Congress, and every other way, has certain functions and prerogatives that a commanding officer has not. He is practically supreme in his command except for the Navy Department; and I will say this, that in the strict sense the title of commanding officer of the naval forces in Europe in this particular case was almost a misnomer, but it was the best term that at the time seemed to fit the situation; but Admiral Sims, as a naval officer, as a technical man, should have appreciated and understood fully the situation. While it may not be possible for me to go into all the little details to explain them, he should have known, and undoubtedly did know, exactly what his position was.

The CHAIRMAN. Then he was commander of the forces?

Admiral BENSON. He was commanding the naval forces in European waters; yes.

The CHAIRMAN. And when our forces were sent over there they were placed under Admiral Sims, were they not?

Admiral BENSON. They were placed under Admiral Sims with the understanding that they would be distributed where they would do best. Later, when the battleships were sent, as I recall it was clearly understood before they left that they would be placed in the Grand Fleet and under the command of the commander in chief of the Grand Fleet.

The CHAIRMAN. But were they not also under Admiral Sims?

Admiral BENSON. There were in a supervisory way, yes, but not for active operations. They acted with the fleet, maneuvered with the fleet, and Admiral Rodman took his orders in regard to the active operations of his forces from Admiral Beattie, just as the destroyers took their orders for active operations, etc., from Queens-town, from Admiral Bayley, and in Brest Admiral Wilson managed and controlled his forces there directly, without any intermediate

foreign officer. He always kept the French Vice Admiral in command at Brest fully informed as to what he was doing, but he did not take his orders from him in any other way.

The CHAIRMAN. Was not Admiral Wilson obliged to keep in communication with Admiral Sims?

Admiral BENSON. He was and did keep in close communication with Admiral Sims, and a great deal of the information upon which he acted came from London, through the information that was gotten from the British Admiralty.

The CHAIRMAN. Was he not subordinate to Admiral Sims?

Admiral BENSON. He was.

The CHAIRMAN. When forces are sent out, ordinarily they report, do they not, to the commander in chief?

Admiral BENSON. They report to the senior naval officer in the vicinity where they arrive.

The CHAIRMAN. And from that time on they are under the commander in chief, are they not?

Admiral BENSON. Under his orders—not necessarily the commander in chief. Of course they would be under the orders of the immediate superior who was in that locality, that immediate superior being under the orders of some higher superior, finally up to the commander in chief.

The CHAIRMAN. Did Admiral Wilson, Niblack, Strauss, and Rodman report to Admiral Mayo?

Admiral BENSON. Only through Admiral Sims. That is the regular hierarchy of authority in naval and military organizations.

The CHAIRMAN. And Admiral Sims reported, did he not, direct to the department?

Admiral BENSON. He reported direct to the department. He was also directed to report to the commander in chief, Admiral Mayo, particularly with reference to the condition of his command, and it was supposed he would keep him informed of any general movements, etc., that he carried on.

The CHAIRMAN. But that was rather a small part of his duty, was it not?

Admiral BENSON. Reporting to Admiral Mayo?

The CHAIRMAN. Yes.

Admiral BENSON. Yes; that was a small part of it.

The CHAIRMAN. In most cases he reported to the department?

Admiral BENSON. In most cases he reported directly to the department and received his orders directly from the department.

The CHAIRMAN. Now, Admiral, you state that you were responsible for the policies that were carried out by the department during the war?

Admiral BENSON. Yes; that is regarding naval operations.

The CHAIRMAN. Were not those policies in regard to naval operations on the other side based largely, almost entirely, on the representations made to you by Admiral Sims?

Admiral BENSON. On the information that we got from there; yes.

The CHAIRMAN. And the recommendations?

Admiral BENSON. Yes; very largely on the recommendations.

The CHAIRMAN. How did you happen to approve of the establishment of a planning section on the other side?

Admiral BENSON. When I was in the British Admiralty I went through their whole organization, and at that time one of the admirals connected with the Admiralty—I think he was the aide to the first sea lord, Admiral Weems—was intrusted with that particular branch of the Admiralty, and in discussing the situation as to the method of planning, etc., with him it may have been that the question was brought up by Admiral Sims, or some of his office, and it was a question that was always uppermost in our minds, to complete our arrangements as far as we could, but the desire was to get in closer touch with the force on the other side and with the British Admiralty, and this question was discussed. Who initiated it or suggested it I am unable to say just now, but after going over the question I know I decided that it would be much better if we could establish a joint planning section—that is, to have two or three of our best officers, most fitted for that duty, to go to London and go right into the planning section of the British Admiralty, and I decided on that, and cabled home, mentioning by name some of the officers that were in my office here in Washington to be sent over to establish that planning section in conjunction with the one in the British Admiralty.

Just who suggested it I could not say just now, but I know that as soon as the subject occurred to me, or was presented to me, I took it up actively, just as I did the question of allowing Admiral Sims to attend the daily meetings of the lords of the Admiralty, which Admiral Sims said he would like very much to do, and I immediately took it up with Admiral Jellicoe and Sir Eric Geddes, and they not only were willing but very glad indeed to have it done. So that was established.

Then, as I said yesterday, there was the question of the interallied naval council. I feel that I initiated that and the rules by which it should be governed were settled by us in London with the understanding that as I could not be present at the meetings on account of the long distance, Admiral Sims would represent me and the Navy Department on that council when I could not be there. Whenever I could be there I was there, representing the United States Government on that council.

The CHAIRMAN. You say you initiated the idea for the interallied naval council?

Admiral BENSON. That is my recollection of it, sir.

The CHAIRMAN. Before you initiated the international allied naval council, how did they get along?

Admiral BENSON. They had conferences between them. The leading naval authorities got together. For instance, when Admiral Mayo went over, as he did in August or September, I think, 1917, there was quite a conference held there between the different allied powers; but as to the regular allied naval council, it was suggested, as I recall it now, by me along the lines of the supreme war council, which was established, I think, while we were over there, due to the debacle in Italy, and the fall of the French Government, and the situation that developed.

This supreme war council was established, and along with it it occurred to me that it would be necessary to have this interallied naval council, and it was put before the interallied conference that was held in Paris, where there were, I think, 22 different nationalities represented, and the idea was adopted and became a permanent

part of the interallied method of carrying on the war. That is my recollection of the situation.

The CHAIRMAN. And Admiral Sims was made a member of that council?

Admiral BENSON. It was understood that on account of the distance of the United States and of Japan from London and Paris and Rome that Admiral Sims, who was our senior naval representative in Europe, would represent me and the Navy Department when I could not be there, and I think the same understanding was come to as far as Japan was concerned, that their naval attaché would represent the chief of the naval staff of Japan.

The CHAIRMAN. When you were there in person did Admiral Sims attend the meetings of the council?

Admiral BENSON. As a rule he did attend, but not as the representative of the United States; simply as my aide and adviser.

The CHAIRMAN. Did he take any part in the meetings?

Admiral BENSON. Yes; he always had the privilege, and availed himself of it, of expressing his views.

The CHAIRMAN. And taking part with the others?

Admiral BENSON. Taking part and expressing his views, yes; but simply as my assistant and adviser.

The CHAIRMAN. And did matters come up occasionally in the interallied council in which you had to come to a vote?

Admiral BENSON. I think they frequently did.

The CHAIRMAN. Did they while you were there?

Admiral BENSON. Yes. The question that I remember particularly was in regard to the terms to be submitted for the armistice.

The CHAIRMAN. Did you and Admiral Sims differ in any way as to what should be done in any action that was taken?

Admiral BENSON. There were some differences of opinion in regard to the terms that should be submitted to the Germans for the armistice, as I recall it, in regard to whether the vessels should be surrendered outright or whether they should be interned. I think he differed with me on that question, and possibly a number, though that I can not recall just now.

The CHAIRMAN. In such cases, where you were present, you voted?

Admiral BENSON. I voted. I do not think Admiral Sims could have voted, as I recall the situation, because I was the representative.

The CHAIRMAN. And you do not recall any of the matters which came up in which you voted differently?

Admiral BENSON. Only just that one that I do recall now; that I differed with him on that question. The British insisted that they should be surrendered and I took a different viewpoint.

The CHAIRMAN. Do you think that the information sent to the Navy Department by Admiral Sims after he had an adequate staff on the other side was of value to the department?

Admiral BENSON. I do.

The CHAIRMAN. He was able to give more information after his staff was increased than before, I assume, was he not?

Admiral BENSON. Yes; I suppose he was. Yes; naturally, he would be able to get it more in detail, and possibly more; and then another thing, as I said yesterday, all of the attachés were ordered to send all of their information to him.

Then another thing, the organization was increasing from day to day, our forces were increasing, and the question of aircraft and the location of aircraft stations, and a place for the men to be accommodated, and all of those details, made it necessary that his staff should be materially increased. Whether it added so very much to the information we got from him along the lines on which we really needed it, except in connection with these new activities which were developing as the war progressed, I do not know that there was so very much difference.

The CHAIRMAN. Did you have available in Washington in the early months of the war such full and complete and full information regarding operations in the war zone that you could formulate operation plans in Washington?

Admiral BENSON. I think we had sufficient information to lay down our general plan of operations.

The CHAIRMAN. Specific operational plans on the other side?

Admiral BENSON. Our plan in general was to send vessels over as fast as we could, to get them ready, and so on, to act, to cooperate, with the Allies in any plans that they had. That was our general plan. We, as I recall it, never got a definite plan from Admiral Sims as to what operations the British or the Allies were acting on. That is my recollection, and I believe that is correct.

After we sent these officers over, to whom I referred, in the planning section, then we did get plans from over there of a definite character. Up to that time, as I understand it, we did not get definite plans. As I said, there was a very secret, definite confidential plan that Admiral Jellicoe showed me for operations against the submarine bases.

The CHAIRMAN. That was never put into effect?

Admiral BENSON. Only so far, I think, as Admiral Keyes carried it out later in 1918, when he attacked Zeebrugge. It was something along that line.

The CHAIRMAN. That was as to blockading German ports, was it?

Admiral BENSON. No; I think that plan, as I remember now, was for attacking certain bases.

The CHAIRMAN. But you did not have sufficient information to regulate the operational plans after the vessels had reached the other side, did you?

Admiral BENSON. I did not; because they had to cooperate with the Allies along plans which they would develop.

The CHAIRMAN. Did not the Allies have to know definitely what action we would take in regard to the recommendations made by Admiral Sims, with which, of course, they were familiar, in order successfully to make these plans?

Admiral BENSON. I do not think there was ever any question in their minds as to what we would do, sir.

The CHAIRMAN. I think Admiral Sims, for instance, on May 1, asked the department to assist in establishing a convoy system. He received no reply until June 20. Now, in between those times must there not have been considerable question in the minds of the Allies as to what our attitude was going to be in regard to the convoy system?

Admiral BENSON. I think, as I say, the Allies were kept informed of the development of any of our ideas or intentions. You will

recall that we had here, for instance, officers and attachés, and we communicated directly with those attachés and got information from them. They were receiving very full and confidential information daily, almost hourly, and those things were always communicated to us, and we communicated with them; so that a good deal of the information, while it might not have gone directly to Admiral Sims, we satisfied ourselves that the allied authorities—naval authorities—were kept sufficiently well informed in regard to the developments in the situation.

The CHAIRMAN. I assume that the allied authorities supposed that when they were dealing with Admiral Sims they were dealing with an authorized representative of the American nation, did they not?

Admiral BENSON. I think they understood perfectly well what Admiral Sims's position was, sir. I think, as I said just now, there is an exaggerated idea as to Admiral Sims's position that he occupied. I think the Allies understood that the operations in Europe were being directed from Washington.

The CHAIRMAN. Do you not think that when the Allies knew that Admiral Sims had made this request about the convoy system and this recommendation, and they knew that he did not receive any reply, as I assume they did know, for at least seven or eight weeks, they must have been somewhat in doubt as to his position over there?

Admiral BENSON. Very likely they did know all of that; but unquestionably they also must have taken into consideration that as Admiral Sims was not the responsible officer, and he did have to take his instructions from Washington, it was a logical supposition that Washington, before it adopted a policy of such tremendous import as that, would give it very careful and thoughtful consideration before they adopted it, and when they were ready to adopt it they would be informed either directly or through Admiral Sims. They are quite as familiar with the ordinary methods of developing a situation of that kind as we were, and our general methods and ideas are very similar in the British Navy and in the American Navy; so that there was not any question in their minds at any time, as I believe, in regard to what we were doing. As I say, we had this daily, constant conference with their representatives who were over here.

The CHAIRMAN. As I recall the matter, the situation on the 1st of May was somewhat critical in regard to the submarine menace, and time had a good deal to do with it. Now, you say they were familiar with what we were doing over here.

Admiral BENSON. I believe they were.

The CHAIRMAN. Did you communicate direct with the British Admiralty through other means than through Admiral Sims, about this question of convoy? If so, I would like to know where.

Admiral BENSON. I do not think we did. We undoubtedly were in daily, intimate conference with their attaché, who knew what was going on—our discussions, and so forth—and undoubtedly he did.

The CHAIRMAN. Were you in daily conference with their attaché about the convoy system?

Admiral BENSON. Not I personally, but my subordinates, I think, were; well, unless they happened to be out of Washington, or for some particular reason, they were constantly in conference with them.

The CHAIRMAN. Would it not have been a good idea to answer Admiral Sims's letter?

Admiral BENSON. It might have been.

The CHAIRMAN. At least to give him the knowledge of what was being done in this country about it; that it was being discussed.

Admiral BENSON. It might have been, and it might not have been. I would like, if I could, to say to the committee that each day every phase of the question involved was given most earnest and careful consideration by everybody, and I believe that every necessary act and step was taken in order to carry on what was best to accomplish the end in view. I unfortunately have a rather poor memory for details. I had a perfect grasp of the great field of operations and its general policies that were necessary to be adopted to accomplish what we were after, and I gave these policies out, and left it to my subordinates to execute them. I can not go any closer into it than that, sir.

The CHAIRMAN. In a letter from the Secretary of the Navy—a letter or a statement, I think it was a letter—on June 20. The Secretary stated:

In regard to convoy, I consider that merchant vessels having armed guards are safer when sailing independently.

That does not look as though they had gotten along very far in Washington about adopting the convoy plan, does it, at that time?

Admiral BENSON. Just at that time. I do not know just when we did adopt the first convoy. It is all a matter of record, sir.

The CHAIRMAN. I think it was sometime in July, was it not?

Admiral BENSON. That is my recollection, but I can not speak definitely in regard to the exact time. I do not think any of our troop ships ever left without an escort of some kind.

The CHAIRMAN. The letter to which I refer appears on page 205 of the typewritten record.

Now, in regard to submarines, Admiral Sims first asked for submarines on June 28, and again on July 13 and July 14, and he received no reply at all about this. Would it not have been better to have acquainted Admiral Sims with the policy of the department about this matter, or at least to have answered his letters?

Admiral BENSON. It might have been, sir; but as I was in charge of the whole affair, and responsible for it, I exercised my discretion and judgment in the matter. I felt that Admiral Sims was very urgent—naturally he would be, under the circumstances—and I did not consider that it was necessary to consume time, and so on, always, to answer all of his repeated requests, and so forth, and I exercised my judgment and discretion in the matter, and feel that I was justified in doing it.

The CHAIRMAN. And as regards battleships, they were recommended on July 21, and no reply was received until August 20.

Admiral BENSON. The same thing there. I stated to you yesterday my reason for acting as I did in regard to the battleships. I exercised my judgment and discretion in the matter and am responsible for what was done.

The CHAIRMAN. You mean your judgment about replying?

Admiral BENSON. That may have been a case of neglect on the part of a subordinate in the office, Mr. Chairman: It would be im-

possible for me to tell just whether it was a case where I directed them not to do it, or not; there were so many details that I can not possibly recall it, and a subordinate may have neglected, in some of these cases. But I felt that Admiral Sims was being adequately attended to as far as replies and the paper work, as you might call it, was concerned.

The CHAIRMAN. Do you not think that the failure to reply, which failure the Allies must have known about, would indicate to them a certain lack of cooperation?

Admiral BENSON. I do not, sir.

The CHAIRMAN. Why not?

Admiral BENSON. Because, as I have stated just now, they knew that all these questions had to be carefully considered, and they took it for granted that we would give careful consideration to them, and also, if there was any question about it, I feel that we were satisfied that the information that the attachés of the Allies had was sufficient for the particular cases that happened to be under consideration.

The CHAIRMAN. Now, if there was unnecessary delay in these matters, Admiral, where would the responsibility for it lie?

Admiral BENSON. Ultimately it would lie with me; or, if you want to go higher and say the Secretary of the Navy, if you want to go to the top of the list. I was the one, though, that was responsible; and certainly, if there was any fault in the matter, I am responsible for it.

The CHAIRMAN. There was no fault on the part of your aids in any way, in Operations?

Admiral BENSON. I do not believe so. I feel that I can not say too much for the energy, intelligence and loyalty displayed by every one of my assistants.

The CHAIRMAN. So that if there was any delay; it was on your part and not on the part of your subordinates?

Admiral BENSON. I am responsible for it; yes, sir.

The CHAIRMAN. Were you in any way delayed in these matters by the Secretary?

Admiral BENSON. I do not think so—the matters you have referred to this morning; absolutely, not.

The CHAIRMAN. Were you in regard to any of Admiral Sims's recommendations?

Admiral BENSON. I do not believe so.

The CHAIRMAN. So that it was altogether, if there was any delay, your fault?

Admiral BENSON. The Secretary was guided by my advice in these matters. I do not admit, though, there was any fault.

The CHAIRMAN. I asked you if there was any fault?

Admiral BENSON. Yes.

The CHAIRMAN. You know of no cases in regard to any recommendations of Admiral Sims where the Secretary delayed unnecessarily?

Admiral BENSON. I can not recall any. I do not believe there were any.

The CHAIRMAN. What did his disposition seem to be, to accede to the requests of Admiral Sims?

Admiral BENSON. As far as it was practicable and in accordance with the recommendations I made. But may I state again, Mr. Chairman, because there seems to be an impression that I was under

some compulsion to take Admiral Sims' recommendations, to do what he said, I want to make that plain, that I was under no compulsion whatever. I was the responsible party, and it was my function, given me by act of Congress, to handle this matter, and I did it; and I must feel that the impression may exist that Admiral Sims was not given proper consideration, and I want to insist that he was my subordinate, and it was my right and my duty to exercise my judgment in the way in which he was treated.

The CHAIRMAN. Does not history show, Admiral, cases where the chief of staff may have interfered with the commander in chief in the field where it has resulted disastrously? There may have been such cases where he had the right to, under the authority of law?

Admiral BENSON. There may have been such cases. I am not familiar enough now with any particular case to say yes or no.

The CHAIRMAN. Was there not such a case in the Civil War in regard to the Army of the Potomac?

Admiral BENSON. I could not say that, sir. I am not familiar enough with the history of the Civil War to state that.

The CHAIRMAN. Was there not considerable complaint about Gen. Halleck—I think it was Gen. Halleck—interfering with commanders in the field?

Admiral BENSON. Gen. Halleck was chief of staff, and there is a good deal said about Gen. Halleck in Gen. Sherman's memoirs; but just how much he interfered, now, I can not recall the details.

The CHAIRMAN. It would be possible for him to hold matters up?

Admiral BENSON. It would be very possible for him to do it.

The CHAIRMAN. You say that you had other sources of information in Washington besides what you got from Admiral Sims about naval matters on the other side?

Admiral BENSON. The attachés gave us a great deal of information. We got a great deal of information through the attachés. I do not know whether you were ever through the office up there, Mr. Chairman, but you may know, and some of the Senators do who were on the Naval Committees, that we had all of our officers, with all the information plotted every hour in the day, nearly, where the western front was, where the various ships were, where the various submarines were operating; and one could go in there at any time, day or night, and get all of the information that was at all desirable, of what was going on in any part of the world. It was there on charts, and it could be shown at a glance what the whole situation was at all times.

The CHAIRMAN. Did you carry into effect any plans that were based on information given to you through these other sources, and not through Admiral Sims, in regard to matters on the otherside?

Admiral BENSON. Any plans that were developed would have been completely taken into consideration information gotten from every possible source, whether from Admiral Sims or anyone else. We did not simply depend on Admiral Sims for all our information.

The CHAIRMAN. But did you carry into effect any plans concerning which you had not received information from Admiral Sims about matters on the other side?

Admiral BENSON. That is possible.

The CHAIRMAN. That is what?

Admiral BENSON. I say that is possible.

The CHAIRMAN. You do not recall any such instance?

Admiral BENSON. No, sir.

The CHAIRMAN. You can not definitely state that there was any?

Admiral BENSON. No, sir.

The CHAIRMAN. Did you formulate any definite operational plans on this side?

Admiral BENSON. I merely outlined general policies and left it to the subordinates to develop any plans that were necessary for carrying them into execution. How many plans were developed, and all, it would be very difficult, or practically impossible, for me to state.

The CHAIRMAN. Do you know of any operational plans that were developed on this side and carried out on the other side?

Admiral BENSON. I think I have answered that question before, sir; I can not recall in detail those plans. There must have been plans, but I can not recall them.

The CHAIRMAN. Operational plans?

Admiral BENSON. Operational plans. For instance, as I said yesterday, take the question of the districts and the distribution of the craft in the districts, the placing of nets, and what areas should be mined under certain contingencies, and things of that kind; where aircraft stations would be located, and where they were to operate. Those things were all carefully attended to. I can not state at this time whether I gave definite instructions to my subordinates to draw up a plan of that kind. I can not recall now whether that was put into definite form or not. I assume that it was, because the idea was always carried out, and I can not go any further than that into the question of plans.

The CHAIRMAN. Then you would not subscribe to the general policy of having base plans prepared on this side, and operational plans prepared and carried out at the seat of operations?

Admiral BENSON. There were certain plans that would be necessary on this side, and certain plans on the other side, and it was for that reason that we sent our planning section abroad, to keep in touch. They were getting the information very complete, and would make out plans over there, which they did and submitted to us. They went over in December, I think, 1917, and there was an order that those plans in which we participated must be approved by the Navy Department.

The CHAIRMAN. The operational plans?

Admiral BENSON. Practically all operational plans in which our forces participated, except in cases of immediate necessity or emergency.

The CHAIRMAN. Then you would not subscribe to the policy which I mentioned?

Admiral BENSON. Oh, I think in general; and immediate practical or operational plans, as you call them, would have to be developed in the field.

The CHAIRMAN. But always sent back home and approved before being carried into effect?

Admiral BENSON. Not always, Mr. Chairman, because we were operating with the Allies. We were not operating in an independent war. For instance, I do not imagine that Gen. Pershing had to send his plans back. He had an independent army over there, and was occupying a very different position from the position that Admiral Sims was occupying. There is no relevancy

The CHAIRMAN. Do you not think that in general in warfare the commander in chief or the commander of the forces in the field should be given the maximum of initiative?

Admiral BENSON. Absolutely, sir; but I do not think that that holds in the case of Admiral Sims.

The CHAIRMAN. You mean specially of Admiral Sims?

Admiral BENSON. Under the conditions. When I say Admiral Sims, I do not mean that personally; but he happened to be our representative over there, and, due to the character of the war we engaged in, I do not think that the naval part of it should be given any more authority than was given in this case.

The CHAIRMAN. Then you do not believe that in the case of Admiral Sims he should have been given the maximum of initiative in carrying on his mission?

Admiral BENSON. I think he had that, sir. Admiral Sims never had anything to do, as I recall it, with a single operation.

The CHAIRMAN. Then you do believe he ought to have been given the maximum of initiative?

Admiral BENSON. I do not quite get that.

The CHAIRMAN. You do believe that he should have been given the maximum of initiative in carrying on his mission over there?

Admiral BENSON. In carrying on his mission, if he had properly understood his mission, yes.

The CHAIRMAN. If he had properly understood his mission?

Admiral BENSON. Yes.

The CHAIRMAN. You do not think he properly understood his mission?

Admiral BENSON. I do not think he realized just the extent to which he was—judging from his letters, that he did.

The CHAIRMAN. Do you think he did good service on the other side?

Admiral BENSON. I think he did excellent service.

The CHAIRMAN. In what way did he not realize the functions he was performing?

Admiral BENSON. I am simply judging from the reports which he made to the Secretary of the Navy that he had an exaggerated idea of what his mission was.

The CHAIRMAN. But did this exaggerated idea appear during the war, and did it do any damage during the war?

Admiral BENSON. I do not think it did any damage. I think he often asked for things and wanted things which I did not consider altogether necessary to grant, and did not grant.

The CHAIRMAN. Sound military policy requires the operational plans in the direction of operations should be made only on full information, does it not?

Admiral BENSON. Yes.

The CHAIRMAN. And he probably had more information about matters over there than you did, did he not?

Admiral BENSON. Of the particular part that he was dealing with. He had to get his information from the various parts of the field over there, from those in the field.

The CHAIRMAN. Now, if there was doubt in Admiral Sims's mind about his functions on the other side, or if he assumed too much, why was he not given fuller instructions when he went abroad as to just what his functions should be?

Admiral BENSON. If you will recall, he was sent over under very peculiar circumstances. We were not at war when he went over, and the situation was such that you could not give him much, as I understand the situation. I do not see how we very well could have given him any more explicit instructions than he received. As I said yesterday, or the day before, I did not give Admiral Sims his definite and particular instructions. My impression is, although I do not know that, that they were given by the Secretary.

The CHAIRMAN. He was at all times within reach, was he not, by cable or by letter?

Admiral BENSON. Yes.

The CHAIRMAN. If you thought that he was assuming too much on the other side, why did you not outline just what his duties should be?

Admiral BENSON. I think he had sufficient instructions, Mr. Chairman, for the duties that he was called upon to perform.

The CHAIRMAN. I know, but you stated that he was taking more on himself than he should.

Admiral BENSON. You asked me why I did not.

The CHAIRMAN. Yes.

Admiral BENSON. I will answer that by saying I did not think it was necessary.

The CHAIRMAN. And you did say he was taking on his shoulders more than belonged to him?

Admiral BENSON. I do not think I made that statement. I said I thought he had an exaggerated idea of what his mission was.

The CHAIRMAN. That would necessarily govern his actions in regard to his mission, would it not?

Admiral BENSON. Yes.

The CHAIRMAN. But if you found that his exaggerated idea was causing him to do things that he should not have done, why did you not call him down?

Admiral BENSON. I did not think that he was doing things that he should not have done.

The CHAIRMAN. Then what harm did it do for him to have this exaggerated idea?

Admiral BENSON. I did not say that it was doing any harm. If I had thought that he was doing harm, I should have given him very definite instructions.

The CHAIRMAN. Then it did not do any harm?

Admiral BENSON. I did not give him such instructions because I did not think it was necessary.

The CHAIRMAN. Then he did not do any harm?

Admiral BENSON. He did not. I thought he was doing most excellently.

The CHAIRMAN. Then he was not doing things that he should not have done?

Admiral BENSON. I do not think he did. I do not recall any.

The CHAIRMAN. Then his fault is simply that he stated in his letter that he was not properly supported on the other side?

Admiral BENSON. My idea of it is, I would not call it fault. My idea of it is that he had.

The CHAIRMAN. You think it was unfortunate that he made this report?

Admiral BENSON. I do; most decidedly, sir.

The CHAIRMAN. Of course there might be a conflict of opinion about that, Admiral.

Admiral BENSON. You have asked my opinion, sir, and I felt I should give it.

The CHAIRMAN. Did you in any way encounter any opposition to carrying out the policies outlined by Admiral Sims in any of his recommendations?

Admiral BENSON. Any opposition? May I ask, sir, in what respect?

The CHAIRMAN. From the Secretary or anyone else.

Admiral BENSON. I do not think ever, sir. As a matter of fact, I think the Secretary was very anxious, as far as possible, to carry out those things, but he left it, as I stated a little while ago, largely to my advice.

The CHAIRMAN. So that if there was any opposition or any delay, you yourself were personally responsible?

Admiral BENSON. I would be responsible for it; yes, Mr. Chairman.

The CHAIRMAN. Have you anything, Senator Ball?

Senator BALL. Not now.

Senator KEYES. I have nothing.

The CHAIRMAN. Senator Pittman?

Senator PITTMAN. Admiral, Admiral Plunkett, testifying before this committee, testified as follows, at page 1291 of the typewritten record. [Reading:]

At the end of March, 1917, when we were on the verge of entry into the war, the gunnery was at the highest state of efficiency that it had been in the history of the American Navy.

Do you agree with that statement or not?

Admiral BENSON. I believe it was, sir; and may I give my reasons particularly for that?

Senator PITTMAN. Certainly.

Admiral BENSON. It was because we had developed the long-range firing with great accuracy to a much greater extent than ever before. That was particularly the case; and the fire control was so much better.

Senator PITTMAN. Admiral Fletcher, who testified before this committee, testified as follows, on page 2250 of the typewritten record. [Reading:]

From my knowledge of the conditions of other navies, there is no question in my mind that the Navy of the United States, notwithstanding its shortcomings, when it entered the war was just as well prepared as any other navy in the world when the Great War burst forth.

Do you agree with that statement?

Admiral BENSON. Well, I think possibly, Senator, that the German Navy, in a great many details, was probably better prepared in personnel and certain other points, than our Navy was at that time, and it was probably a better balanced force, and all.

Senator PITTMAN. This testimony, as I take it, is to the effect that our Navy, on April 6, 1917, was as well prepared for entry into the war as were any of the other navies at the time of the breaking out of the war in 1914.

Admiral BENSON. I understand that, sir; and I say, with what we had, it was; but I think that the German Navy was undoubtedly

better prepared in personnel, and possibly in the balance of the naval forces.

Senator PITTMAN. Then, you would qualify the testimony of Admiral Fletcher to that extent?

Admiral BENSON. I would, sir. That is my opinion, of course, Senator.

Senator PITTMAN. Then, I understand that it is your opinion that our Navy was as well prepared on April 6, 1917, as any of the navies of our Allies were prepared in 1914, when they entered the war?

Admiral BENSON. Well, with what we had, I would say yes, with the possible exception that the Allies may have been better prepared in personnel than ours was.

Senator PITTMAN. Did not the General Board in 1915 prepare an estimate for the personnel of the Navy?

Admiral BENSON. I think they did every year, sir.

The CHAIRMAN. And is it not a fact that when that recommendation was acted upon by Congress in the session of 1915-16, Congress carried out that recommendation as to personnel?

Admiral BENSON. I would have to consult the records of the department, Senator, to give you that definitely. I think it is a matter of record, though, but I could not, offhand, from my personal recollection, state whether it did or not.

Senator PITTMAN. Well, it was testified to here. The actual records of the facts have been placed before the committee.

Admiral BENSON. Yes.

Senator PITTMAN. And I simply called attention to it for the benefit of the committee at the present time.

Admiral BENSON. Yes.

Senator PITTMAN. My recollection of it is that they did grant the personnel recommended by the Secretary.

Admiral BENSON. Increases were granted right along, but whether they complied fully with the recommendations, I could not state.

Senator PITTMAN. Admiral Badger, in testifying before this committee, testified as follows (pp. 2624, 2626, 2634, and 2646 of type-written record). [Reading:]

Always bearing in mind the difference in size and power between the British and German fleets and our own in 1914, I do not hesitate to say that we were as well prepared as to our Navy when we entered the war as were the other belligerents in 1914. (P. 2624.)

The Navy Department always had in view the things necessary to be done in case we entered the war. I will read, with your permission, a letter marked "B," from the General Board, dated March 13, 1915, approved and put into effect immediately. It proved of great value in expediting and coordinating the department's preparations for war. As the reports came in, the General Board examined them, noted progress made or the reverse, and returned them with comments to the department. * * *

On February 4, 1917, the General Board forwarded a communication to the department, a plan of procedure to meet a possible condition of war with the central European powers. I will ask your forbearance while I read it in order to show that the department was neither neglectful nor ignorant of the critical situation, as has been charged. (P. 2634.) * * *

On March 20, 1917, war being imminent but we being still neutral, precautionary measures for the protection of American shipping were recommended. (P. 3646.) * * *

Also on the same date a paper on the same subject, "Assistance that the United States can give the Allies upon declaration of war," was submitted.

I take it that as far as the first paragraph I read is concerned, you agree with Admiral Badger, except as you have qualified your testimony?

Admiral BENSON. Yes, sir; and I would like to state further, Senator, that I do not feel that there is any more able naval authority anywhere than Admiral Badger, or one who is better competent to give an opinion. He was practically the chairman of the general board, had been there for some time, and had all of these points under daily observation and study, and I would unhesitatingly accept what he said in regard to such matters.

Senator PITTMAN. Admiral Wilson, in testifying before this committee, testified as follows. I read from page 2160 of the typewritten record. [Reading:]

I have no hesitation in saying that no nation upon the approach of war has had a force of battleships more nearly prepared for battle than was the force to which I was attached and which spent the winter of 1916-17 in southern waters; and I feel sure that if this force had engaged an enemy on its cruise north in the spring of 1917, the victory would have been ours.

Do you agree with that opinion or not?

Admiral BENSON. I do with regard to the condition of the battleships, unless the Germans, knowing that they were going to declare war, prepared theirs in greater detail right up to the minute. Admiral Jellicoe's book would indicate that with the exceptions that I have noted, our fleet was in certainly much better condition at the time than the British fleet was when they entered the war.

Senator PITTMAN. Admiral Mayo, in testifying before this committee, testified as follows, beginning at page 1454 of the typewritten record. [Reading:]

When the active fleet arrived in Hampton Roads about the 1st of April after its training period in Cuban waters, it was in the best state of preparedness that it had ever been, and there was a feeling of confidence in the personnel of being able to cope with any emergency; the personnel was, however, on a peace basis and the transfer of trained personnel for armed guard and other duty was already being felt in a decrease in efficiency. The destroyers that were first despatched to the war zone, though they were assigned to operations for which they had not been specially trained, showed the effect of their general training by the efficiency with which they at once entered into their new duties.

I will ask you whether you agree or disagree with that comment.

Admiral BENSON. I would agree that Admiral Mayo's statement as commander in chief, in regard to the matter, certainly should be accepted; and I believe, with the exceptions that I have noted, he is correct. Of course, as I have already stated, in sending our battleships even then, in the condition they were, away, or opportunities offering there might have been little details in material, and so forth, that would be well to look after. Upon general principle I think he is correct, sir.

Senator PITTMAN. In other words, there is quite a distinction, is there not, in military science, between being prepared for war and being prepared for an immediate battle with an enemy?

Admiral BENSON. Yes; I think there is.

Senator PITTMAN. It has been testified here that upon our entrance into the war, had the German fleet attempted to cross the Atlantic Ocean to our shores, in the opinion of the witness, who was Admiral Wilson, the victory would have been ours. What is your opinion in regard to that?

Admiral BENSON. I think if the German fleet had met ours with its full force of cruisers, battle cruisers, destroyers, and so forth it would have been very doubtful.

Senator PITTMAN. Admiral Wilson, as I remember the testimony, took into consideration and testified with regard to the difficulties in the fleet crossing the Atlantic Ocean and fighting on our shores. In your opinion would that have had any bearing on the result?

Admiral BENSON. That would have had a decided bearing, but of course I am treating this as a theoretical proposition or a hypothetical proposition. I do not want to be understood as believing that we could not have defeated the German fleet; but I am simply treating it as a hypothetical proposition.

Senator PITTMAN. I realize that it is a hypothetical proposition, because it was beyond the realm of possibility, was it not, Admiral, for the German fleet to come, intact, at that time into the Atlantic Ocean?

Admiral BENSON. Absolutely, sir.

Senator PITTMAN. And as Chief of Operations you were dealing with facts that then existed, and not with theories that might have existed?

Admiral BENSON. I was, sir.

Senator PITTMAN. I only asked that question by reason of the fact that the chairman, or those who were directing his cross-examination, seemed to feel that that was a very important question.

Now I have here what purports to be a plan—a basic plan, as I take it—by the General Board. It is as follows. [Reading:]

FEBRUARY 4, 1917.

G. B., No. 425 (confidential). Serial No. 666.

From: Senior member present.

To: Secretary of the Navy.

Subject: Steps to be taken to meet a possible condition of war with the central European powers.

On account of existing conditions, the General Board recommends that the following steps be taken to meet a possible condition of war with the central European powers:

1. Complete complements and allowances of all kinds, first of the A and B fleet, then of the C fleet, and naval districts.

2. Mobilize the A fleet in the lower Chesapeake, and increase it immediately to the B fleet. (See Black plan.)

3. Dock and repair all ships in reserve and ordinary that will be used.

4. Arrange for the supply of fuel to the fleet and stock all fuel depots to capacity.

5. Establish additional recruiting stations and increase personnel of the Navy and Marine Corps to the total number required to supply complements for all the ships built, building, and authorized, and to maintain shore establishments and naval defense districts, including aviation service, with 10 per cent additional for casualties as follows: Enlisted force: Navy, 150,000; Marines, 30,000. Officers in the proportions prescribed by law.

6. Mobilize the naval districts, including the Coast Guard and Lighthouse Services and put patrol vessels, mine sweepers, etc., of the Atlantic coast districts, on their stations; no commercial vessels to be mobilized in the Pacific coast districts at present.

7. Prepare to the utmost detail for the employment of mines along our coast as may be necessary.

8. Prepare nets and other obstruction for submarines, ready for immediate use, at the Chesapeake capes, Delaware capes, entrance to New York Bay, eastern entrance to Long Island Sound, Narragansett Bay, Panama Canal, and Guantanamo. Other places as their need becomes apparent. The General Board considers it of the utmost importance that net protection shall be immediately provided for the fleet during its mobilization in Chesapeake Bay.

9. Establish immediately the guards at all navy yards, magazines, radio stations, powder factories, munition plants, bases, shipbuilding yards, and naval shore utilities in accordance with the mobilization plans.

10. Reduce the force of marines in Haiti and Santo Domingo to the smallest number that can maintain order there; transferring these men to the United States to perform necessary guard duty at navy yards, magazines, radio stations, shipbuilding plants, and to form cadres for the organization of new regiments as recruits are obtained. Organize the advanced base force and complete its equipment.

11. Leave in the Caribbean a sufficient number of light cruisers to keep a lookout for submarines in those waters and for the protection of our interests there. Protect the canal and Guantanamo as far as possible, by the use of mines, and where possible by monitors, submarines, and nets.

12. For the present use the greater part of the destroyer flotillas as patrol for submarines in the vicinity of the principal ports or entrances leading to them.

13. Base the submarines at canal, Guantanamo, and points along the coast in accordance with the Black plan.

14. Rush to completion all naval vessels building or authorized; also build up the Aviation Service as rapidly as possible.

15. Guard all bays and harbors on the coast of Maine, to prevent their use as bases of supply. Patrol waters of Haiti, Santo Domingo, Porto Rico, and Danish West Indies; Cuban Coast Guard Service to assist in patrolling all bays and gulfs of the coast of Cuba.

16. Prepare to close entrances to all ports at night and discontinue or change such aids to navigation as may be necessary.

17. Organize a comprehensive system of intelligence service covering the whole theater of war in accordance with the plans of the Office of Naval Intelligence.

18. Take possession of all interned vessels of war of Central Powers, also take control of all commercial vessels of Central Powers now in United States waters.

19. Place under surveillance all citizens of the Central Powers in the Navy or in Government employ in naval establishments and remove them from positions in which they may do possible harm.

20. Arm our merchant vessels for purposes of defense.

21. In accordance with Black plan carry out the following:

(a) Issue proclamation prescribing defensive sea areas and put rules in regard to them in force.

(b) Issue proclamation prescribing press regulations and establishing censorship of cable and radio, including naval control of all commercial and private radio stations.

(c) Issue President's order in regard to visit and search, capture, etc.

22. And, as most important, arrange as soon as possible plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce, and for offensive naval operations against the common enemy.

CHAS. J. BADGER.

(Copy furnishing Admiral Benson Mar. 6, 1917.)

I have another order here from the General Board, which I will read. It is as follows [reading]:

G. B. No. 425. (Serial No. 699.)

APRIL 5, 1917.

Confidential.

From: Senior member present.

To: Secretary of the Navy.

Subject: Assistance that United States can give the Allies upon declaration of war.

References: (a) General Board's letter, G. B. No. 425 (serial No. 666), February 4, 1917, steps to be taken to meet a possible condition of war with the Central European Powers.

(b) General Board's letter, G. B. No. 425-1 (serial No. 553-b), February 6, 1917, Black plan, tactical problem I.

(c) General Board's letter, G. B. No. 425-1 (serial No. 672), February 17, 1917, solution of problem, Black.

(d) General Board's letter, G. B. No. 425 (serial No. 683), March 17, 1917, estimate of the situation as to system of patrol and sweeping best adapted for protection of shipping off port of New York.

(e) General Board's letter, G. B. No. 425 (serial No. 689), March 20, 1917, protection of American shipping.

The General Board believes that the mission of our Navy when war is declared against Germany will best be determined by arrangement with the allied powers

now engaged in war with that country. We should immediately obtain from the allied powers their views as to how we can best be of assistance to them and as far as possible conform our preparations and acts to their present needs, always bearing in mind that should peace be made by the powers now at war we must also be prepared to meet our enemies single handed. We should not depend upon the defensive, but prepare for and conduct a vigorous offensive.

2. This recommendation has already been made by the General Board, references (a) and (e), and is as follows:

"And as most important, arrange, as soon as possible, plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce and for offensive naval operations against the common enemy.

The General Board wishes to emphasize strongly the necessity of such preliminary arrangement, in order that economy of effort and concentration of purpose may become effective as early as possible.

3. The General Board suggests that consideration be given to the following measures in anticipation of cooperation with Allies:

(a) Protect shipping proceeding to and from our ports from submarine or other attack;

(b) Prevent the use of unfrequented bays or harbors on our own coasts, in the Gulf of Mexico and the Caribbean from use by submarines as bases;

(c) Take over as far as may be desired and practicable the patrol of trade routes in the western, north, and south Atlantic and eastern Pacific, and prevent the exit of enemy merchant ships now finding asylum in the South American ports;

(d) There is no doubt that, if desired by the Allies, sending immediately a number of destroyers to cooperate with the allied powers in the barred zones would greatly add to the moral effect, at home and abroad, of the participation of the United States in the war. The numbers of this type which may eventually be sent abroad will depend upon the development of a German offensive on this side of the Atlantic, our immediate needs, and the increase of this type in our Navy;

(e) Should United States troops be sent to Europe it will be necessary to escort the transports from shore to shore. At present we are short of transports and conveying vessels, and cooperation in this duty with the Allies would be necessary;

(f) The transportation of supplies for the Entente Allies is of the first importance. Requisition all enemy merchant ships detained in our ports, and seize enemy converted ships interned, repair them and place them in service as transports or supply ships;

(g) Mobilize the shipbuilding industries, both commercial and governmental, so that the energies of the Nation be extended in the directions needed to provide vessels to combat submarines, to escort merchant shipping, to replace shipping destroyed, and for other necessary additions to the fleet;

(h) Keep constantly in view the possibility of the United States being in the not distant future compelled to conduct a war single handed against some of the present belligerents and steadily increase the strength of the fighting line, large as well as small vessels—doing this with as little interference with the rapid building of destroyers and other small craft for the Navy, and cargo ships for the Merchant Marine as possible;

(i) Manufacture the number of medium caliber guns which will be needed for merchant shipping and patrol craft.

CHARLES J. BADGER.

The CHAIRMAN. What was the date of that?

Senator PITTMAN. April 5, 1917, the day before we declared war.
[Continuing reading:]

NAVY DEPARTMENT,
Washington, June 8, 1917.

Subject: Assistance that United States can give Allies upon declaration of war.
Memorandum for the General Board.

The recommendations contained in the General Board's letter, G. B. No. 425, dated April 5, 1917, have been received and action has been taken, as follows: All recommendations acted upon favorably and measures taken in accordance therewith so far as possible.

By direction of the Secretary.

F. H. SCHOFIELD.

I have another report of the General Board of April 5, 1917, which is as follows. [Reading:]

G. B. No. 425-A. (Serial No. 700.)
Confidential.

APRIL 5, 1917.

From: Senior member present.

To: Secretary of the Navy.

Subject: Detail of a commission of officers to Great Britain and France.

In view of the existing state of war and the value to us of definite technical information as to methods of naval operations developed by the Allied powers in the present war, the General Board believes that steps should be taken immediately to get all the practical information possible for our guidance in our own operations and in order that we may heartily and efficiently cooperate with the Allies.

2. The General Board therefore recommends that negotiations be immediately entered into with Great Britain and France to send experienced naval officers to the United States to give information, and also obtain permission for two commissions of our own naval officers to visit England and France, respectively, so that they may as rapidly as possible acquire the desired information at first hand.

3. The main points on which information is desired are as follows:

- (a) Methods of placing nets, mines, and obstructions, and their character.
- (b) Methods of mine sweeping and countermining.
- (c) Methods of submarine detection, chasing, capture, and destruction.
- (d) Types of antisubmarine vessels and of aircraft for all naval purposes.
- (e) Methods of patrol, escort, and convoy for the protection of both merchant shipping and naval forces against submarines and mine menace.
- (f) Methods of communication actually employed in antisubmarine warfare.
- (g) Methods and codes to be employed by our forces in cooperating with those of the Allies.

(h) Best methods and manner of cooperation and nature of service to be rendered by our forces particularly in escorting merchant shipping.

4. The General Board recommends that the commission be constituted of officers on the active list as follows:

Great Britain.—One rear admiral, one captain, two commanders, five lieutenant commanders or lieutenants, one naval constructor.

France.—One rear admiral, one captain, one commander, two lieutenant commanders or lieutenants, one naval constructor.

The General Board recommends this number of officers so that the work can be divided up and expedited, and believes that if this number of officers is detailed the information desired can be obtained in about two months.

CHAS. J. BADGER.

APRIL 5, 1917.

Memorandum for the Chief of Naval Operations.

Names suggested for commissions, to be sent abroad to obtain information as to methods of prosecuting naval war abroad:

France.—Rear Admiral T. S. Rodgers, Capt. H. H. Hough, Commander David F. Sellers, Lieut. H. H. Crosby, Lieut. Wadleigh Capehart, Naval Instructor W. G. Gilmer.

England.—Rear Admiral W. S. Sims, Capt. W. V. Pratt, Commander Yates Stirling, Commander F. H. Clark, Lieut. F. A. Daubin, Lieut. G. L. Caskey, Lieut. S. C. Hooper, Naval Constructor E. S. Land.

Sent in accordance with your request.

CHAS. J. BADGER.

NAVY DEPARTMENT,
Washington, June 9, 1917.

Subject: Detail of commission of officers to Great Britain and France.

Memorandum for the General Board.

The recommendations contained in the General Board's letter, G. B. No. 425-A, dated April 5, 1917, have been received this date and action has been taken as follows: Officers are making investigations.

By direction of the Secretary.

F. H. SCHOFIELD.

I have here a communication by the Secretary to the General Board, dated March 20, 1917, which is as follows:

NAVY DEPARTMENT,
Washington, March 20, 1917.

Confidential.

To: The General Board.

Subject: Protection of American shipping.

1. The President directs me to call upon the General Board to outline the measures that the Navy can employ for the most effective protection of the merchant shipping to European ports, in addition to the armed guards that have already been undertaken. It is desired that every character of protection to this merchant shipping be considered by the board, and recommendation be made as to what additional agencies can be employed to protect American lives and American shipping.

2. This specific question—the fullest and most ample protection of this shipping—is the immediate problem committed to the Navy, and its duty to spare no effort or expense for such protection is imperative, and it is to the answer of this pressing problem that the recommendations of the General Board should apply.

3. Expedite report and embody specific recommendations.

JOSEPHUS DANIELS.

The General Board replied the same day.

(At this point, at 12.10 o'clock p. m., the subcommittee adjourned until tomorrow, Saturday, May 8, 1920, at 10 o'clock a. m.).

NAVAL INVESTIGATION.

SATURDAY, MAY 8, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235 Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, and Pittman.

TESTIMONY OF ADMIRAL W. S. BENSON—Resumed.

The CHAIRMAN. The committee will come to order. Senator Pittman, will you proceed with your questions?

Senator PITTMAN. On yesterday I was reading into the record certain reports or recommendations from the General Board, and I was interrupted in that reading, and I would ask permission to place those in the record. There were two more, I think, that I had before me, and I will not take the time to read them into the record.

The CHAIRMAN. What were those?

Senator PITTMAN. They were reports of the General Board to the Secretary.

The documents referred to by Senator Pittman are here printed in full in the record, as follows:

G. B. No. 425. (Serial No. 688.)

MARCH 20, 1917.

Confidential.

From: Senior member present.

To: Secretary of the Navy.

Subject: Safety of lives and property of United States citizens on board American ships on high seas.

The question orally submitted to the General Board by the Chief of Operations on the afternoon of March 19, 1917, is in substance as follows:

Does the General Board think that under the present situation everything has been done that can be done to insure the safety of lives and property of United States citizens on board American ships on the high seas? If not what does the General Board recommend be done in addition?

2. The General Board is of the opinion that everything possible under the circumstances for the protection of American lives and property on the high seas is not being done.

3. In its letter, G. B. No. 425 (serial No. 666), February 4, 1917, the General Board made recommendations as follows looking to the protection of the lives and property of Americans on the high seas:

"(On account of existing conditions, the General Board recommends that the following steps be taken to meet a possible condition of war with the central European powers:

"(1) Complete complements and allowances of all kinds, first of the A and B fleet, then of the C fleet, and naval districts.

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"(2) Mobilize the A fleet in the Lower Chesapeake, and increase it immediately to the B fleet. (See black plan.)

"(3) Dock and repair all ships in reserve and ordinary that will be used.

"(4) Arrange for the supply of fuel to the fleet and stock all fuel depots to capacity.

"(5) Establish additional recruiting stations and increase personnel of the Navy and Marine Corps to the total number required to supply complements for all the ships built, building, and authorized, and to maintain shore establishments and naval defense districts, including aviation service, with 10 per cent additional for casualties, as follows:

Enlisted force, Navy, 150,000; marines, 30,000; officers in the proportions prescribed by law.

"(6) Mobilize the naval districts, including the Coast Guard and Lighthouse Services, and put patrol vessels, mine sweepers, etc., of the Atlantic coast districts on their stations; no commercial vessels to be mobilized in the Pacific coast districts at present.

"(7) Prepare to the utmost detail for the employment of mines along our coast as may be necessary.

"(8) Prepare nets and other obstruction for submarines, ready for immediate use, at the Chesapeake Capes, Delaware Capes, entrance to New York Bay, eastern entrance to Long Island Sound, Narragansett Bay, Panama Canal, and Guantanamo. Other places as their need becomes apparent. The General Board considers it of the utmost importance that net protection shall be immediately provided for the fleet during its mobilization in Chesapeake Bay.

"(9) Establish immediately the guards at all navy yards, magazines, radio stations, powder factories, munition plants, bases, shipbuilding yards, and naval shore utilities in accordance with the mobilization plans.

"(10) Reduce the force of marines in Haiti and Santo Domingo to the smallest number that can maintain order there, transferring these men to the United States to perform necessary guard duty at navy yards, magazines, radio stations, shipbuilding plants, and to form cadres for the organization of new regiments as recruits are obtained. Organize the advanced base force and complete its equipment.

"(11) Leave in the Caribbean a sufficient number of light cruisers to keep a lookout for submarines in those waters and for the protection of our interests there. Protect the canal and Guantanamo as far as possible by the use of mines, and where possible by monitors, submarines, and nets.

"(12) For the present use the greater part of the destroyer flotillas as patrol for submarines in the vicinity of the principal ports or entrances leading to them.

"(13) Base the submarines at canal, Guantanamo, and points along the coast in accordance with the Black plan.

"(14) Rush to completion all naval vessels building or authorized; also build up the Aviation Service as rapidly as possible.

"(15) Guard all bays and harbors on the coast of Maine, to prevent their use as bases of supply. Patrol waters of Haiti, Santo Domingo, Porto Rico, and Danish West Indies; Cuban Coast Guard Service to assist in patrolling all bays and gulfs of the coast of Cuba.

"(16) Prepare to close entrances to all ports at night and discontinue or change such aids to navigation as may be necessary.

"(17) Organize a comprehensive system of intelligence service covering the whole theater of war in accordance with the plans of the Office of Naval Intelligence.

"(18) Take possession of all interned vessels of war of Central Powers, also take control of all commercial vessels of Central Powers now in the United States waters.

"(19) Place under surveillance all citizens of the Central Powers in the Navy or in Government employ in naval establishments and remove them from positions in which they may do possible harm.

"(20) Arm our merchant vessels for purposes of defense.

"(21) In accordance with black plan carry out the following:

"(a) Issue proclamation prescribing defensive sea areas and put rules in regard to them in force.

"(b) Issue proclamation prescribing press regulations and establishing censorship of cable and radio, including naval control of all commercial and private radio stations.

"(c) Issue President's order in regard to visit and search, capture, etc.

"(22) And as most important, arrange as soon as possible, plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce and for offensive naval operations against the common enemy."

4. The General Board renews these recommendations, believing as it does that they all have a pertinent bearing upon the protecting of the lives and property of American citizens on the high seas, and that the illegal acts and claims of Germany on the high

seas have created, in the opinion of the General Board emphasizes as of first importance the mobilization of the naval forces, material, and personnel; the arming of merchant ships; and arranging for the cooperation with the allied powers, which must exist if our shipping is to be adequately protected in the "barred zones."

CHARLES J. BADGER.

MARCH 20, 1917.

G. B. No. 425-A. (Serial No. 689.)

Confidential.

From: Senior member present.

To: Secretary of the Navy.

Subject: Protection of American shipping.

Reference: Secretary of the Navy's confidential letter, March 20, 1917.

1. Of the measures advocated by the General Board in its letter of February 4, 1917, G. B. No. 425, Serial No. 666, especial attention is invited to the following which bear directly upon the protection of our commerce in transit between the United States and Europe:

(a) Escort vessels to deep water from our ports and similarly from deep water to our ports.

(b) Arrange with British and French Governments for the convoy of our merchant ships through the barred zones.

(c) Merchant ships to proceed on high seas from points of leading and receiving escorts, depending upon their guns for protection, and upon changes of course to follow alternate routes.

(d) Arrange with British and French Governments a code of signals to be used in directing merchant ships as to routes to be followed and points of meeting escorts.

(e) Establish a patrol of the Atlantic coast.

(f) Recruit up to the limit allowed by law for emergencies in order to provide crews for patrols and auxiliaries and fill battleship complements which have been depleted to supply gun crews to merchant ships.

2. In order to obtain what the General Board regards as the greatest measure of protection to American lives and American shipping on the high seas, the General Board invites attention to its letter of March 20, 1917, G. B. No. 425, Serial No. 688, and of its previous letters of February 6, 1917, G. B. No. 425-1, Serial No. 553-b; February 17, 1917, G. B. No. 425-1, Serial No. 672; March 17, 1917, G. B. No. 425, Serial No. 683; on the same subject.

CHAS. J. BADGER.

Senator PITTMAN. Admiral, as I understood your testimony, it was to the effect that in your opinion the winning of the war depended upon the soldiers upon the west front in the field?

Admiral BENSON. Yes.

Senator PITTMAN. You have a general knowledge, of course, of the condition of our Army at the time we entered the war on April 6, 1917.

Admiral BENSON. Generally; yes.

Senator PITTMAN. You have a general idea also of the magnitude of the task of drafting and preparing for the training, and the training, of the Army that we did send to France, and that we had in reserve in this country?

Admiral BENSON. Yes.

Senator PITTMAN. You have testified, I believe, that the submarine menace, while critical, was not very critical, and that in your opinion it did not affect the result of the war.

Admiral, if there had been no submarines, would not the result of the war equally have depended upon the opposing forces upon the west front, as it did?

Admiral BENSON. I believe so; absolutely.

Senator PITTMAN. There seems to be quite an effort to establish the fact that there was some terrible mistake, because we did not have more destroyers in our Navy at the time we entered the war.

There has not been any criticism adduced before this committee because Great Britain did not have more destroyers when they entered the war. But supposing that Great Britain in April, 1917, had had twice as many destroyers as she had, would that in any way have affected the number of soldiers that were placed on the west front?

Admiral BENSON. Not so far as the United States was concerned; no, sir.

Senator PITTMAN. That is what I mean, so far as the United States was concerned.

Admiral BENSON. No; I believe not.

Senator PITTMAN. In other words, all of this investigation as to whether we should have had six subchasers on the other side in April, or 12 or 28, is almost an absurd discussion in considering whether or not we were responsible for a delay of four months in the termination of this great war; is that true?

Admiral BENSON. As I understand and in view of the situation, Senator, to have had more destroyers or submarine chasers or other craft on the other side during the period before we had started our troops over, would have resulted in saving more British and other allied shipping; and to that extent it would have given a moral support to the Allies and supplied them—made them feel more sure with regard to their resources. I do not believe it would have had any other effect whatever.

Senator PITTMAN. In other words, we know from the reports of Gen. Bliss and also from the statements from the Allied War Council, that they were waiting for American soldiers on the west front to give the balance of power to the Allies there where the war must be determined. We know that Gen. Bliss, from his reports, did not expect that we could terminate that war until the following year. You have testified that as fast as the Army had the soldiers prepared to go to the west front, the Navy took them there; is that so?

Admiral BENSON. That is so.

Senator PITTMAN. Yes.

The CHAIRMAN. Senator Pittman, will you refer to the place in the testimony where Gen. Bliss made that statement?

Senator PITTMAN. Yes. Gen. Bliss did not make the statement here, but his report was included in the testimony of witness, which I will show. I will put that testimony in the record. I know that it stands undenied.

The CHAIRMAN. Put in the part that deals with this particular thing.

Senator PITTMAN. I will put that in at this point in the record.

(The matter referred to by Senator Pittman not printed in the record.)

Senator PITTMAN. Those were the material questions that you had to deal with, getting those troops over there.

Now, as a matter of fact, is it not true, Admiral, that while there was a tremendous destruction of tonnage at the maximum of the submarine destruction, even if it had not been reduced, still there would have been sufficient food reaching the allies to have allowed matters to go on to a determination by the armed forces on the west front.

Admiral BENSON. Did you ask if I thought so, sir?

Senator PITTMAN. Yes.

Admiral BENSON. I do think so.

Senator PITTMAN. In other words, the submarine menace in its bearing on this question only deals with the destruction of tonnage and not with the winning of the war?

Admiral BENSON. Yes; I think that it had its demoralizing effect on the allies, and that in that way, of course, made the problem considerably harder.

Senator PITTMAN. Now one of the petty delays, if it might be called a delay—because apparently they call everything a delay that took time for consideration—one of these so-called delays was the time taken by you and your staff in the consideration of the recommendation for the convoy plan. When did the Allies first arrive at a determination on the convoy plan?

Admiral BENSON. To the best of my recollection the first convoy that was attempted, as I think has already been testified to, left Gibraltar about the 1st of May, and I do not think it was regularly taken up as a regular principle by the British until the latter part of June or the early part of July. That is my recollection.

Senator PITTMAN. 1917?

Admiral BENSON. 1917; yes, sir.

Senator PITTMAN. This was a problem, therefore, that was facing the British Admiralty and the other admiralties of our allies and their war councils from the time they entered the war, from 1914 to 1917?

Admiral BENSON. Yes, Senator.

Senator PITTMAN. In other words, there is no criticism of a delay of three years on the part of the Allies in arriving at a determination of this problem, while it is considered a very serious delay, because immediately after we entered the war our department should have taken two or three weeks to investigate the matter; is not that a fact?

Admiral BENSON. I believe so, sir.

Senator PITTMAN. Another criticism, which by reason of the fact that we transferred all the troops we had to transfer, and were ready to transfer, seems to be rather academic, is that you made a mistake in the distribution of the few officers that you had.

Admiral BENSON. I do not believe so, Senator. As I have already stated, the responsibility of how to utilize the forces at our disposal to the best advantage for the common cause was mine, and I exercised my judgment in the way it was done, and as I have also said, I feel that the results justify the correctness of my judgment in the matter.

Senator PITTMAN. Was any navy ever expanded and enlarged any more rapidly than was our Navy after we entered the war?

Admiral BENSON. Why, decidedly not, sir. If I remember the figures correctly, I think we had something over 500,000. In fact, I think possibly at the close of the war we had more men and officers in the Navy than the British had, and were recognized as the largest naval power the world has ever seen.

Senator PITTMAN. And a large portion of that expansion consisted in placing in the service of numerous small craft that required officers; is not that so?

Admiral BENSON. Yes, sir.

Senator PITTMAN. A rather unusual and extraordinary situation in naval warfare of the past?

Admiral BENSON. Well, of course, in our wars, with our long coast to guard, we have always looked to that particular element that would have to be safeguarded.

Senator PITTMAN. Not only did the Navy have the officering of these numerous vessels required by the peculiar character of the warfare upon the seas, but the Navy had to officer a tremendous commercial enterprise as dealing with material; is not that a fact?

Admiral BENSON. Yes, sir.

Senator PITTMAN. The expansion of production in material of the Navy had to be coequal, did it not, with the expansion of the naval operations?

Admiral BENSON. As far as possible, of course.

Senator PITTMAN. As far as possible. Was Admiral Sims in as close touch with the developments of the production and the material and the construction and placing in operation of ships as was your department on this side?

Admiral BENSON. I do not think he could possibly have been, sir. It was not possible for him to.

Senator PITTMAN. Was it possible for him to realize the requirement for officers on this side to the extent that you did?

Admiral BENSON. I do not think it possible for him to do it, sir.

Senator PITTMAN. The questioning would lead to the conclusion that there is a criticism, possibly, of your department for not having more written plans of operation. If you had sent over to Admiral Sims the officers that he asked for, you would have been more crippled in having written plans of operation than you were even, would you not?

Admiral BENSON. Very much more, sir, because the very officers that I depended the most on developing policies that I initiated and developed and ordered to be carried into execution were wanted by Admiral Sims.

Senator PITTMAN. Yes. Admiral Sims was to supply information, which was a very valuable thing. You were to carry out the operations based on that information. Is there any comparison as to the importance of those two services?

Admiral BENSON. Not in my opinion, Senator.

Senator PITTMAN. If Admiral Sims had had all of your staff over there to get information, the information would have been useless without the power on this side to obtain the production of material and the construction to carry that out; is not that a fact?

Admiral BENSON. It is, sir. Might I add there that Admiral Sims got most of his information that was necessary and of greatest value to us directly from the information sources of the British Admiralty, so that his principal effort was in relaying that, I might say, to the Navy Department in Washington?

Senator PITTMAN. Admiral, I had the opportunity and pleasure of being in your offices and your department, together with other members of the Naval Affairs Committee, on numerous occasions from the very beginning of the war and on through, and during that time I always saw British naval officers in your offices. Were they there constantly during the war, or were they there only when I happened to go down there?

Admiral BENSON. They were there, I would say, constantly. Their presence might not be uninterrupted. Of course, there might be short periods, as I stated the other day, when they were out of Washington when they were not here, so that if I wanted to be correct I would say that they were there constantly in the sense that you refer to.

Senator PITTMAN. I have seen those officers assisting in plotting out in your office the information that was received from the other side with regard to the position of submarines, German submarines, and the vessels of the allied and associated powers. Did they often render assistance in that capacity?

Admiral BENSON. Well, Senator, they were constantly there, bringing information that they had and getting the information that we had, and the cooperation in every respect was about as complete as it could have been, not only that of the British, but the other Allies, and we kept no secrets from them. We gave them everything that we had. The relations were most intimate, and I can not recall any incident connected with the complete cooperation between the various navies and their representatives, except possibly one. On one occasion when in the office, which as you remember adjoins mine—there was a very secret office where we only allowed certain people to enter in—in a conference with the French and British naval attachés, discussing some policy that I was carrying out, and a movement of some vessels, the French attaché intimated rather plainly that I was exhibiting too much partiality for the British. I think that is the only little incident that occurred. That I, of course, nipped in the bud at once, and spoke rather severely to the officer under the circumstances, and told him that nothing in the way of disagreements or criticism between the two services could be allowed in my office; that everything must be in perfect harmony; and that if there was any feeling of that kind it must be brought to me directly and the question settled immediately. That is the only incident that I can remember during the whole war.

Senator PITTMAN. These attachés were officers in the navies of their respective countries, were they not?

Admiral BENSON. Yes, sir; and most of them had been actively engaged in the war in various places.

Senator PITTMAN. They were not only officers in these navies, but they had been actively engaged in the war?

Admiral BENSON. Yes.

Senator PITTMAN. And were accredited to you by the governments having these navies?

Admiral BENSON. Accredited to our Government; yes, sir.

Senator PITTMAN. For the services they were performing?

Admiral BENSON. For the services they were performing.

Senator PITTMAN. They were in constant touch with their own governments and their own navies, were they not?

Admiral BENSON. They were in very close touch with them.

Senator PITTMAN. They were intensely interested in obtaining the very best service from our Navy in their behalf, were they not?

Admiral BENSON. They were.

Senator PITTMAN. And it was that intense zeal which brought about this little, slight jealousy, we might term it, rather than any

neglect on their part? In other words, it was the zeal of these officers—these attachés?

Admiral BENSON. You mean with reference to the particular thing I spoke of?

Senator PITTMAN. Yes.

Admiral BENSON. Yes; of course that was it.

Senator PITTMAN. Yes.

Admiral BENSON. But there was really no ground for criticism on the part of the other attaché. But, as you say, of course, he was acting in what he believed to be his earnest duty and in looking out as well as he possibly could for the interests which he represented.

Senator PITTMAN. It simply evidences, as I take it, the complete touch that these attachés had with their own situation, and their zeal to carry out their own particular problems.

Admiral BENSON. Yes; Senator.

Senator PITTMAN. I bring this out for the reason that the report of Admiral Sims to the Navy Department, and his testimony here, would rather indicate that your department would not have known what to do, and possibly would not have done anything, if it had not been for the information he gave you and the explanations that he made. As a matter of fact, your department was working right along, whether it received information from Admiral Sims every day or once a week, was it not?

Admiral BENSON. It was, sir.

Senator PITTMAN. And was working on very definite information every day?

Admiral BENSON. Yes, sir.

Senator PITTMAN. In other words, you were in constant receipt of definite information from all the naval divisions of the Allies, and your own forces, as to the positions of vessels and the probable position and movement of the German submarines?

Admiral BENSON. We had in our office this service, and as soon as it was fully developed we could tell at any hour of the day or night where any of our vessels were, we could tell where the enemy submarines were operating within very close limits, of course, and we had the various fronts. In fact, there was scarcely any one feature of the war either on land or on water, that you could not in my office at any hour, day or night, get almost the exact information that you might want.

Senator PITTMAN. And that information was plotted out constantly so that it was actually visualized?

Admiral BENSON. It was.

Senator PITTMAN. Even a member of the Naval Affairs Committee of the Senate could understand it?

Admiral BENSON. If it was not understood, it could be very easily explained.

Senator PITTMAN. I think, Admiral, that you have been very modest and also very magnanimous in assuming all of these so-called mistakes of a petty and immaterial nature. Knowing the work that you did in the matter, and being convinced that the war was actually won and it is over, so far as the Navy is concerned, I feel that it is unjust to you to allow it to stand there. That is one reason why I have been emphasizing what you have already so modestly

alluded to. There has been an effort here to show that you had no operating plans.

The CHAIRMAN. Excuse me, Senator, there has been an effort to find out whether he had any operating plans.

Senator PITTMAN. Well, I will allow it to go at that rate. I am very glad that there was no intimation that he did not have any.

The CHAIRMAN. There is no question.

Senator PITTMAN. No question, and I trust that it will not be misunderstood by the country or by our Allies.

You have testified that you had definite policies which were carried out. There may be a distinction in naval plans between definite plans and definite policies to be carried out. You surveyed the necessary resources of the country for the Navy, did you not?

Admiral BENSON. I did, sir.

Senator PITTMAN. You surveyed the manufacturing resources of the country essential to the Navy, did you not?

Admiral BENSON. We did.

Senator PITTMAN. You surveyed the available navy yards for the construction of ships, did you not?

Admiral BENSON. We did.

Senator PITTMAN. You surveyed, in general, the material essential to the Navy?

Admiral BENSON. We did.

Senator PITTMAN. These conditions were all before you?

Admiral BENSON. They were.

Senator PITTMAN. You know how they had to be utilized?

Admiral BENSON. I did.

Senator PITTMAN. You decided and determined how they should be utilized?

Admiral BENSON. I did.

Senator PITTMAN. And gave instructions to your staff and subordinates particularly to carry it out?

Admiral BENSON. I did.

Senator PITTMAN. You were in constant touch, were you not, with your chief of staff and assistant, Capt. Pratt, were you not?

Admiral BENSON. Absolutely.

Senator PITTMAN. He was the officer immediately under you who took your orders and commands?

Admiral BENSON. Yes.

Senator PITTMAN. And proceeded to distribute those orders and commands to other officers under him, or coordinating with him?

Admiral BENSON. Yes, Senator.

Senator PITTMAN. You had access to all basic plans and operating plans that he had access to, did you not?

Admiral BENSON. I did.

Senator PITTMAN. Those plans were records of your office, were they not?

Admiral BENSON. They were.

Senator PITTMAN. Now, as you know, Admiral, Capt. Pratt has testified in this matter, and so has Admiral McKean, and they have supplied this committee with all of the evidence of details in their possession, or that they know of, or that have been called to their attention. You requested, did you not, that Capt. Pratt and Admiral McKean be placed upon the stand prior to your testimony?

Admiral BENSON. I did, Senator, for two reasons. First, on account of their position and duties, I knew that they were very much better able to give the committee all of the details that they would want and in such a way that there would be no question about it, and I also wanted them to come before the committee before I did in order not to be influenced in any way by any opinions that I might give expression to or ideas, before the committee, in case I came before them. I wanted them to give their opinions absolutely freely and unrestricted or unbiased, and to the best of my recollection I do not think I have said anything to either one of them before they came on the stand that would have influenced any expression of ideas that they might have had.

In addition to that, for the last two months my mind has been absolutely absorbed in a problem for the good of this country, and the possibilities that may follow the success or failure of what I am now doing are in my mind of very much more value and importance to this country and the danger that may come to it very much greater, than the danger of the German submarine in the late war; and having completed, as I felt satisfactorily to the naval service and to the country, the duties that were imposed upon me as the technical head of the Navy during the war, and having been called upon to assume these new duties, I felt that it was incumbent upon me to give those new duties which were of such tremendous importance, everything there was in me, and I have so done; and for that reason it has been impossible for me to give in detail the information that has been asked for, and I wish to make that statement to the committee as an explanation as to why I have been unable to answer many of the detailed questions that have been put to me.

The reports that you have referred to speak for themselves, and in addition to that, I would request the committee to be allowed to put in the record Appendix B of the report of the Secretary of the Navy for 1916, a statement by the Chief of Naval Operations, which I think will answer a great many of the questions in detail, which, due to my poor memory and the absorbing duties that I have been performing for the last few months, I was unable to recall.

The CHAIRMAN. I have no objection, You indorse, of course, everything that is in that report?

Admiral BENSON. It is my statement.

The CHAIRMAN. And you indorse it now?

Admiral BENSON. I do, sir.

The CHAIRMAN. I have no objection. It will be printed in the record at this point.

(The document above referred to is here printed in full in the record as follows:)

APPENDIX B.

NAVY DEPARTMENT,
Washington, D. C., October 12, 1916.

STATEMENT BY THE CHIEF OF NAVAL OPERATIONS.

1. The Office of Naval Operations, organized in May, 1915, under the Chief of Naval Operations, has continued during the past year the consistent development of its work. In harmony with the department's already confirmed disposition to afford the chief of this office all necessary support for the exercise of his appropriate functions, Congress, by the act approved August 29, 1916, has strengthened the dignity of the Chief of

Naval Operations by conferring upon him the rank of admiral, and has given permanency to the office by providing that he shall have not less than 15 assistants of or above the rank of lieutenant commander in the Navy or major in the Marine Corps. As soon as these officers become available for assignment they will be ordered to duty as provided by law.

2. The experience in the administration of the Office of Operations during the past year has demonstrated that in it lies an effective means of coordinating the complex work of the Navy in harmony with maturely considered plans. The Chief of Naval Operations is, by law, charged, under the direction of the Secretary of the Navy, with the preparation and readiness of plans for the use of the fleet in war. A war plan constitutes a scheme of action, and upon its soundness and completeness will depend the measure of success of our fleet when called upon to meet the test of war.

3. When properly understood, an approved plan becomes the guide for the effort of all executive branches of the department, the accomplishment of which as a whole each branch within its sphere of action must give its loyal adherence. The plans which have been formulated by the General Board and approved by the department have been received by the several bureaus and offices of the department in this loyal spirit, and there has resulted a closer and more efficient cooperation than ever before. Service of the fleet by all shore activities of the Navy, in order that the fleet may serve the Nation, has been accepted by all as a suitable mission.

4. In the work of preparation for war emergencies, and incident thereto in the collection of data relating to sources of supply, two or more bureaus have often covered the same field of inquiry, thus causing unnecessary multiplication of departmental work, and sometimes, unfortunately, causing a very natural irritation to private industrial managers subjected to repeated requests for information already furnished by them to the same department of the Government. To correct this very unbusinesslike practice, a permanent logistics committee of bureau representatives is now charged with the duty of coordinating the work of the several bureaus in collecting logistic data. This committee has also the broader duty of determining and maintaining under the approval of the bureaus, a suitable war reserve of material and of devising methods for reserve expansion when war is imminent. There is a vital necessity for a war reserve for engineering and construction material sufficient to equip our fleet upon mobilization without delay.

5. The inspection of merchant vessels, with a view to their adaptation as naval auxiliaries in war, has continued. This work had formerly been carried on by a naval inspection board independent of the Army, which involved the risk of complication and confusion in the event of war through the fact that a similar inspection was being conducted independently by an Army board with a view to employing such vessels in the Army service. To obviate this there has been organized, through an agreement with the War Department, a board of inspection of merchant vessels, consisting of both Army and Navy officers. No merchant vessels will be inspected hereafter for war service except by this joint board. Merchant vessels already inspected by either the War or the Navy Department, as well as vessels yet to be inspected, will be assigned definitely by the joint board either to the War Department or to the Navy Department. Each department will, when war is imminent, be able by this scheme to act with celerity and in perfect agreement. Like agreements affecting the allotment of the country's ammunition resources to the two departments are in process of adjustment. Other matters connected with the making of plans in which the Army and Navy must cooperate need close association of the two departments for satisfactory settlement. Steps are being taken to make a closer association with the War Department in such matters more easily possible.

6. A carefully thought out plan for the development of naval shore bases and naval stations has been prepared by the General Board, and, in its main features, has been approved by the department. To insure a consistent plan of development of our navy yards and stations in accordance with such a plan a departmental board, on which all bureaus and offices concerned have representation, has been organized. The duty of this board is to advise a logical and scientific scheme of development and to determine the best method of applying the requirements of such scheme to each navy yard. By such systematic procedure each yard will be satisfactorily developed toward its maximum capacity for most efficient service, in conformity with the general approved plan. So, it is hoped, will immature or hasty recommendations for improvements be avoided, and a permanent argument and justification for appropriations recommended will always be at hand based upon sound reasons.

7. In May, 1916, an officer of the rank of captain was given charge of naval districts in the Office of Operations. In accordance with the previously approved plan, the revision of the regulations governing naval districts was begun. A complete study of one district was worked out and was furnished to the commandants of districts as a

type organization, with directions to organize each district along similar lines. This work is now being completed in the most satisfactory manner, and, in addition, the Offices of Naval Communications Service and of Naval Intelligence have prepared rules for obtaining and transmitting information within the naval districts.

8. The adoption of oil as the fuel of our naval vessels, the greatly increased use of fuel oil in commercial pursuits, the rapid depletion of our oil fields, and the difficulty of securing reserve fields to meet the future needs of the Navy, have created a very serious situation. The advantages of oil for naval use are so great that only a compelling necessity should ever force the Navy to consider its abandonment and a return to the use of coal. Such necessity can be avoided only if provision is made in advance to secure the necessary oil reserve. Having in mind these manifest conditions, the department appointed a board of naval officers to give this whole subject earnest consideration, and this board is now making a thorough study of the fuel-oil situation. It is hoped that the board's work of investigation may result in a definite recommendation to the department for a practical solution of this grave problem.

AERONAUTICS.

9. The development of naval aeronautics has continued to receive the department's serious attention, and though progress has not been rapid the difficulties have been met without discouragement, and it is hoped that a type of naval aeroplane adapted for use over the sea and its use from shipboard are now problems near solution.

10. It must not be forgotten that all the wonderful advance in the science of aeronautics has been almost wholly along the lines of service over land and that the service over sea is a new field, involving many unsolved problems widely different from those which have been solved in the land service. The naval aeroplane has its home on a ship, from which it must learn to take its flight and to which it must return to be reclaimed undamaged. The naval aeroplane has no smooth meadow from which to rise and upon which it may alight. It starts from the heaving deck of the scout and may have to rest on its return upon the surface of a stormy sea. Difficulties in the design of motors, of propellers, and of landing floats have been encountered and are steadily being overcome, the solution of these problems being greatly aided by the testing laboratory established at the Washington Navy Yard.

11. An aeroplane constructed after the department's own design is now nearly completed, and is expected to solve many of our difficulties and establish the standard type for future construction.

12. One of our armored cruisers, the *North Carolina*, has been fitted with a practical aeroplane-launching device and, supplied with a number of naval aeroplanes, has joined the fleet to cooperate in fleet work and to develop the tactics of aircraft on the sea. The *West Virginia* and *Washington*, sister ships of the *North Carolina*, have similar equipment installed, and other armored cruisers and scouts will, when opportunity offers to do the work, be fitted in like manner.

REPAIRS TO SHIPS.

13. In the effort to maintain our fleet in a state of constant readiness for efficient service the department's policy abolishing regular overhaul periods at navy yards and requiring that all work within the capabilities of the ship's force and the fleet repair ships be done by these agencies away from navy yards has been adhered to and will be continued. The benefits of such a policy, when thoroughly understood and reduced to practice, will be fully appreciated and will result in an ever-increasing reliance within the fleet upon the fleet's own resources for maintaining its cruising efficiency.

14. That our important ships, under the operation of this policy, still continue to spend prolonged periods at the yards is due to abnormal circumstances existing at this time, when extraordinary work of alterations and repairs are made necessary by radical changes in the fire-control systems of all, the serious shaft troubles of some, and the renewal of boilers in others. These large items of repairs and alterations, of course, could only be taken care of at navy yards.

VESSELS IN COMMISSION IN RESERVE.

15. Vessels which have been placed in commission in reserve, though usually those of older construction, have still a definite military value, which exists so long as they are kept in readiness for active service. If allowed to deteriorate in their material condition or if stripped too bare of their personnel, these ships at once lose most of their military worth, and when so conditioned are virtually stricken from the Navy

list. Under the department's present policy all ships in reserve are to be maintained in material readiness for active service at short notice, with a sufficient large part of their trained crew on board to keep alive knowledge of the ship and to sustain the spirit of efficiency within the ship as a haven to the "green" men that upon commissioning for active service must be placed on board.

16. All reserve ships are organized into the reserve force under the reserve force commander. They are given periodic military inspections and are required to perform an annual program of exercises involving some form of target practice. The reserve force during the past year has been called upon to perform various services and has in all cases answered the call with gratifying performance. On both the east coast and the west coast the reserve ships were given the duty of exercising the Naval Militia on its annual summer cruise of two weeks, and later they embarked nearly 3,000 civilian volunteers for a cruise of four weeks, giving these enthusiastic Americans an opportunity to see something of Navy life and of naval duties on shipboard.

GUNNERY EXERCISES AND ENGINEERING PERFORMANCES.

17. A better systematized and more searching analysis of the performance of ships during the training period preliminary to the gunnery exercises and during gun practice itself, by boards of officers appointed in the fleet, has resulted in the elimination of many faulty methods, in the standardization of good methods, and in a general increase in the knowledge of principles underlying successful gunnery practice.

18. The fleet has carried out the various forms of gunnery exercises prescribed, and the advance in battle efficiency has been maintained. The satisfactory progress noted in my report of last year is being maintained and, though not sacrificing the time necessary for other exercises, more time is being given to fleet gunnery training than in any previous year. Firing at extreme ranges has been carried out successfully, and greater experience with improved fire-control instruments and installations warrant the hope of still better results in the coming year.

19. Improvement in gunnery has not been confined to the battleship force alone, and it is worthy of note that the submarines show an equally satisfactory advance in torpedo work, keeping pace with the improvement noted in both the battleship and destroyer forces.

NAVAL COMMUNICATIONS SERVICE.

20. The naval radio service, under its new name of Naval Communications Service, has continued its past efficient performance in handling the Government radio service, and in addition has taken over the work of handling all telegraph, telephone, and cable communications connected with the naval service outside the fleet. In addition to this work of serving the Government, as well as commercial needs, it has the censorship of radio stations in accordance with the President's neutrality proclamation of August 5, 1914.

21. An interesting demonstration of the progress attained in this interesting field was had on May 6, 7, and 8, 1916, when, in conjunction with the American Telegraph & Telephone Co., the communications service was mobilized for test. The Navy Department was connected by telephone and telegraph with all navy yards and radio stations in the United States. Radio telephone apparatus was installed on board the battleship New Hampshire, and that ship, lying off the capes of the Chesapeake, was able to communicate by radiotelephony with the department in Washington and with the Mare Island Navy Yard in California. The department itself had no difficulty whatever in communicating with the New Hampshire or any of the naval stations in the United States, using a desk telephone as on any ordinary occasion.

22. A new radio station has been completed and put in service at Point Isabel, Tex. This station will be of great service to the merchant marine in that section, as well as to the Government in facilitating communication with vessels in Mexican waters.

23. As an illustration of the growth of the radio service in the past few years, it may be noted that during the period from December 13, 1912, to December 31, 1913, there were handled a total of 12,854 commercial messages, while during the period from July 1, 1915, to June 30, 1916, the number had increased to 97,084. Of course the number of official messages had correspondingly increased, the number for the latter period above mentioned being 628,997.

OPERATIONS OF THE FLEET.

24. Our fleets on the several stations have been actively employed during the past year. In Asiatic waters the conditions in China have long been disturbed, and the unrest of the Chinese people has frequently been made manifest by local revolts and

uprisings of more or less serious magnitude. Our ships on the Chinese coast and especially in the rivers of that country, have rendered important service in keeping in touch with conditions, in sustaining our diplomatic representatives, and, in general, looking out for American interests.

25. The chief duty of the Pacific Fleet has been, as heretofore, service in Mexican waters. Unsettled conditions still continue in that country, and the recurrent threat of danger to the lives of our numerous citizens resident there has kept most of the active ships on the Pacific station, and at times many of the reserve ships distributed along the Mexican coast, ready for any service that the occasion might demand. Beginning in the latter part of June, 1916, and continuing through July, when the safety of Americans in Mexico seemed to be seriously threatened, our ships assisted thousands of our citizens out of that country and provided them transportation to the United States. On the east coast of Mexico the ships of our cruiser force in the Atlantic have performed like service.

26. The Atlantic Fleet has followed an approved annual program of exercises. In the main this program requires a stay in Cuban waters from January to April, during which target practice and tactical exercises are carried out. Then the fleet returns north for docking, repairs, and continued training, including elementary target practice, and participation in the department's annual maneuver.

27. During the year, since October 1, 1915, the battleships *Pennsylvania*, *Nevada*, and *Oklahoma* have been completed and added to our active fleet, and the *Arizona*, which is to be commissioned on the 17th of this month, will soon join them. In addition there have been completed and assigned to active service 10 destroyers and 7 submarines, together with the destroyer tender *Melville* and the submarine tender *Bushnell*.

28. The department's annual strategic maneuver took place in August last off the northern Atlantic coast. In this maneuver 83 vessels were engaged, of which 28 were battleships and 13 were submarines. The operations of the maneuver lasted for four days and developed most interesting and instructive situations for everyone concerned. It is with much gratification that the department noted the thoroughness and completeness with which the plans of the two commanders were treated and the very admirable manner in which the maneuver was carried out.

OPERATIONS IN HAITI AND SANTO DOMINGO.

29. The occupation of Haiti by the expeditionary force of United States Marines, which was initiated in July, 1915, still continues. The Haitien gendarmerie, under officers of the United States Marine Corps, has been organized in accordance with the treaty recently concluded between this Government and that of the Haitien Republic, and as soon as certain administrative details provided for in a supplementary agreement between the two Governments have been satisfactorily arranged it is contemplated that the necessity for continued occupation of that country will cease. The present Government of Haiti gives every evidence of stability and that country is now enjoying a prosperity greater than it has for many years past.

30. The situation in Santo Domingo reached a crisis in May, 1916. The President of that country, Jiminez, abdicated his office and the Santo Dominican Cabinet withdrew from Santo Domingo City, which was then held by an armed force of revolutionists under the revolutionary leader Arias. In cooperation with our minister in Santo Domingo, naval forces were landed and occupied the city for the preservation of order and the protection of lives and property. The revolutionists having later established themselves in the town of Santiago, in the interior, an expeditionary force of marines was dispatched to occupy that town, to disarm all insurgents, and to reestablish order. This work was most efficiently completed, and at this writing there are in existence no known revolutionists in arms against the constituted authority. All disorder in Santo Domingo has been suppressed, and it is hoped that permanent peace, under stable government, will soon be established. There are now 900 marines in Haiti and 1,800 in Santo Domingo.

THE "HECTOR" AND THE "MEMPHIS."

31. On July 15 the U. S. S. *Hector* was wrecked and stranded off Cape Romaine, S. C. The *Hector* at the time of her wreck was proceeding on her usual service as collier from Charleston to the Caribbean and was caught in a severe gale, during which, after being disabled and having become unmanageable, she finally stranded, as stated. Salvage operations are now in progress, though greatly hampered by weather conditions which prevail at this season. No lives were lost in the wreck of the ship.

32. On August 29 the U. S. S. *Memphis*, flagship of the commander of the cruiser force, lying at anchor off the city of Santo Domingo, was driven ashore by heavy seas. This menace came upon the ship suddenly and without any previous warning. All material on board the *Memphis* of value is being salvaged, and an investigation is being held as to the feasibility of salvaging the ship. It is a matter of regret that 40 lives were lost in this wreck, 33 from the swamping of the ship's boats caught in the effort to return to the ship, and 7 killed and 5 injured by the bursting of a steam pipe in the engine room.

W. S. BENSON.

The CHAIRMAN. Senator Pittman, if you will allow me to interrupt, I would like to state that some time before Admiral Benson came on the stand, he wrote me a letter in which he asked that Admiral McKean and Capt. Pratt be allowed to testify before he did so.

Senator PITTMAN. Yes.

The CHAIRMAN. As he wished to have them make their statements freely and entirely unbiased by anything he might say.

Admiral BENSON. And I would like to say that I got a very nice letter from the chairman of the committee in response to that, which I very much appreciated.

Senator PITTMAN. Early in your testimony, Admiral, you stated that professionally you were for preparation for war considerably before we entered the war, but that in your opinion the country was not. As a matter of fact, Admiral, was there not a considerable opposition in the country to the shipment of munitions of war to our allies before we entered the war?

Admiral BENSON. I could only speak from a general impression and from the press, Senator. As I recall it, there was opposition to our doing that; but as I say, I can simply recall in a general way press comments at the time.

Senator PITTMAN. There was quite strong opposition in Congress also, was there not?

Admiral BENSON. How strong it was I could not say. I think there was opposition.

Senator PITTMAN. There was strong opposition in Congress to the arming of merchant vessels before we entered the war, even a very short time before we entered the war, was there not?

Admiral BENSON. I think there was, sir.

Senator PITTMAN. As a matter of fact, is it not within your general knowledge since you have been Chief of Operations that it has always been the disposition of Congress, representing of course the policy of the country and the people of the country, to oppose the enlargement of the Navy in accordance with the professional view of most of the naval officers?

Admiral BENSON. Well, I would reply to that in this way. I think, as I have already said, that their recommendations have not always, or have rarely ever, been completely carried out. I think, if possible, they were more nearly carried out in 1916, and after that possibly; but at no time have they ever been fully carried out, to the best of my recollection.

Senator PITTMAN. In 1915, the European war, of course, was in progress. In the winter of 1915 and 1916, it was rapidly reaching a very critical position. The Navy Department then recommended, as the reports now in evidence show, the largest naval program ever presented to Congress.

Admiral BENSON. In 1916; yes, Senator.

Senator PITTMAN. I think that was presented, however——

Admiral BENSON. Well, whenever it was presented it was passed. It was in 1916. I do not know the exact date.

Senator PITTMAN. It was presented in December, 1915, and acted on later in 1916.

Admiral BENSON. Yes.

Senator PITTMAN. That was really the first definite naval program ever presented to Congress covering a period of years, was it not?

Admiral BENSON. To the best of my recollection it was, except, possibly, I think there was a policy adopted at one time that we could have only one battleship a year, or possibly two battleships a year. That might be designated as a policy. But on a large scale, to the best of my recollection, that is the first regular building program on a large scale that was presented to Congress.

Senator PITTMAN. Yes. This program, as our record here discloses, was a three-year building program. It went to the House of Representatives, as the record discloses, and they spread it over five years, and cut it about half in two. That is the fact that is disclosed by the record. It is true that the Senate Naval Affairs Committee came to the rescue of the Navy Department and reduced the building program to three years, and greatly enlarged it as far as the House provisions were concerned, and then compromised with the House committee in conference. I call attention to that fact for the purpose of illustrating your testimony with regard to what might be the opinion and policy of the people of the country as reflected through its Congress, and the professional policy as reflected through the naval officers.

In that same naval program the General Board of the Navy made recommendations as to increase of personnel. It was the authoritative advice of the naval board, in conjunction with the Chief of Operations, to the Secretary of the Navy. The evidence discloses that the House cut down that recommendation for personnel. I simply bring that out for the purpose of illustrating the difference in professional opinion of naval officers, compared with the opinion of the people of the country as expressed through their Representatives in Congress.

I also say, in justice to the Naval Affairs Committee of the Senate, that they increased it in accordance practically with the report of the General Navy Board.

So you had, as Chief of Naval Operations, the personnel and only the personnel which was recommended by the General Naval Board, and allowed by Congress; and you utilized and distributed the officers of that personnel in the most vital places, did you not?

Admiral BENSON. I did, sir.

Senator PITTMAN. And as you were enabled to increase the officers of your personnel, you allotted more of these officers to the various divisions? For instance, you allotted more of them to Admiral Sims's department?

Admiral BENSON. I recommended that, Senator. In order to be perfectly straight on this proposition, I want to say that as to the question of the personnel I could only recommend, but my recommendations were carried out in the main. But it was particularly with reference to those that were to go abroad.

Senator PITTMAN. Now, there seems to have been a great effort here to sustain everything that Admiral Sims ever said and ever did. For one, I have no objection to it so long as it is entirely just, and not having the purpose of reflecting upon the Navy.

There was quite a difference, was there not, in regard to the necessity for the protection of our coast on April 6, 1917, from what it was six months later?

Admiral BENSON. I think so, because the situation had developed to a certain extent, and we were in a better position to protect it with a greater variety of appliances, and so forth. Our nets were in better shape, and the conditions were better, and we had determined on a policy of practically keeping the fleet in inland waters, behind nets and other protections.

Senator PITTMAN. It was essential, was it not, Admiral, for us to protect our troop ships as they left our coast?

Admiral BENSON. Always; from the time they left the harbor until they reached the docks on the other side.

Senator PITTMAN. And if we had withdrawn from this coast all protection on April 6, 1917, the Germans would undoubtedly have known it, would they not?

Admiral BENSON. They would.

Senator PITTMAN. And they would undoubtedly have taken advantage of that situation?

Admiral BENSON. In my opinion, they would.

Senator PITTMAN. And in that event it would have been a very remarkable thing, if we had attempted to carry our troop ships from our ports, if we had not lost some of them?

Admiral BENSON. I think it would, sir; and I might illustrate my reason for that on the ground that there was a wide extent of ocean within which the German submarine could operate, compared to the areas on the other side, where they were more restricted in their active operations.

The CHAIRMAN. Excuse me, Senator. Senator Ball has called my attention to the fact that in your questions you are stating what you conceive to be the fact and are simply asking the admiral to corroborate it. I replied to the Senator that we are not following the procedure that would perhaps be followed in a court of law.

Senator PITTMAN. Well, to this extent. I happen to be cross-examining this witness, and the method of conducting a cross-examination is entirely different from the method of conducting a direct examination.

The CHAIRMAN. We are not following here any particular procedure that would be used in a court of law.

Senator BALL. It seems to me to be rather unfair. I am not a lawyer and do not know the principles involved, but it seems so to me, to ask a question, then answer that question yourself, draw your own conclusions, and merely ask the witness for his assent to your conclusions.

Senator PITTMAN. Well, of course, on cross-examination, where a witness has already testified on direct examination, it is perfectly competent, and one of the objects of cross-examination is to find out whether or not you have the correct interpretation of what the witness has already testified to.

Senator BALL. Now, that is what I am getting at; and if you will get the admiral's opinion, it would be better; but you ask your question and then answer it yourself, drawing your own conclusion, and then ask him to say if that conclusion is not correct.

Senator PITTMAN. But I am drawing his attention to the particular testimony he has already given, and asking him if he means by that to say so and so.

Senator BALL. No; but it struck me that he was not answering your questions.

The CHAIRMAN. All we are after is information, and I have no particular objection, so far as I am concerned.

Senator PITTMAN. Well, now, there is another question. Admiral Sims, from his testimony, indicates to my mind that he considered the loss of a troop ship as of less importance than the loss of a ship bearing food.

The CHAIRMAN. Will you cite Admiral Sims's statement?

Senator PITTMAN. Well, I think I can show it. I will show it in a moment or two. I ask leave to put in at this point Admiral Sims's testimony.

The CHAIRMAN. Very, well. I think that in each case where you refer to the testimony of a witness you should put it in the record.

Senator PITTMAN. Very well; I was careful to say that it made that impression on my mind.

Senator BALL. The reason that I brought that out, Senator, is this. Many of those questions you asked involved many different projects and many different answers, and when you came to your final conclusion, there was no way in his reply but to cover all of them, probably, in that answer.

Senator PITTMAN. The very object, of course, of my examination is to consolidate the testimony; that is all. It is to get a direct opinion on particular facts which he has already given in a long discussion. That is all. I am simply trying to consolidate. I do not assume that he is going to change his testimony in any way or is going to contradict himself. It is purely for a question of consolidation on certain points which have been covered in various long discussions.

As I was stating before—and I will put it in this way—I am under the impression, whether I am right or wrong, that Admiral Sims has testified in effect that as cruel as it might seem, it was of more importance to protect vessels carrying food than it was to protect vessels carrying troops; and I think that we will find, when I put this evidence in, that the reason he gave was that a few troops on the west front would not affect the result of the war, while an insufficiency of food would cause a complete collapse. Now, we will find out that later.

The CHAIRMAN. I think that latter statement is more in conformity with my recollection.

Senator PITTMAN. I am only giving it as my impression.

The CHAIRMAN. However, the record will show it.

Senator PITTMAN. As I understand, you take exactly the contrary view, Admiral?

Admiral BENSON. I do, Senator.

Senator PITTMAN. You have testified that it was a matter of troops and not a matter of food that was the critical situation in this war—was the determining critical situation.

Admiral BENSON. It was the determining situation. I would not say that the others were not material.

Senator PITTMAN. They were material.

Admiral BENSON. But the question of troops was the most important.

Senator PITTMAN. Yes. You have already testified that even if the submarine menace had maintained its maximum, we would still have gotten food enough and material enough.

Admiral BENSON. I still think we would have, sir.

Senator PITTMAN. Yes. All these matters, Admiral, so far have largely been dealing with minor plans embraced in Admiral Sims's letters or reports, and his testimony before this committee. The vital charge, in my opinion, the charge that affects the standing of our Navy before the world, and you might say the honor of our Government, and which alone in my opinion justifies the appointment of this committee, is the ultimate, serious charge made by Admiral Sims, that by reason of delay in sending forth our antisubmarine craft, and by reason of unpreparedness, we were responsible for an extension of the war for a period of four months, and the consequent loss of 500,000 men. Now, I want to know positively and directly whether you agree with that charge or disagree with it?

Admiral BENSON. I disagree most decidedly, sir, and I would like to be allowed to give my views in regard to it.

Senator PITTMAN. I would be very pleased to hear them, and I have no doubt that the committee would.

Admiral BENSON. As I have stated before, I firmly believe what hastened the close of the war, as far as America was concerned or the United States, in the main was getting American troops on the western front. The one thing that hastened it particularly was the formation of the American army under Gen. Pershing. I do not believe that any possible delay, if such there was, had the slightest effect on lengthening the war, except in this way, that had we not gotten in there, had we not done what we did do, the Allies might have been forced into a peace and ended the war before we got into it, they being the losers and the Germans being the winners. Under no other circumstances could the war have been shortened by what we did or did not. That is the military and naval view, I am satisfied, of those who are in a position to judge, and the mission of the United States Navy in this war, next to protecting our coasts and vessels, was to get our troops into France and keep them and the Allies as far as possible supplied with munitions and provisions.

We carried the troops over—those that we did carry—and we assisted the Allies in what they carried, and we brought our troops back, and to the best of my recollection the Navy never lost an American soldier while it had it in charge.

In 1918 we were getting them over there at the rate of over 300,000 a month, the most wonderful performance that was ever seen or ever dreamed of, and it was due to this fact that the end of the war was hastened; and there has never been any complaint that I know of, or any intimation of any failure on the part of the Navy, either by our Army or anybody in this country, or any of the Allies; no intima-

tion of our failure to act up to the limit in the most enthusiastic and efficient manner, with the means that we had to perform, except the complaint which Admiral Sims has made.

I feel that the complacency or the calmness with which the American people have accepted that statement is a tribute to their sense of fair play, but I must express in the strongest possible language that I think it is an outrage to the American people, I think it is an outrage to the honorable record of the United States Navy; I think if it is allowed to stand it will be the everlasting disgrace of the Navy, and I think that our first arm of national defense will be weakened now and in the future. I think it is particularly hard and outrageous on the nearly 500,000 young men who volunteered in the Navy, and who did such splendid work, and who went back to their homes feeling proud of the service in which they served, and the people that gave them up to the service of the country was proud of them. And I feel very strongly that if there be any doubt or any question in anybody's mind as to this situation, the experts of the Army and every person in the country who is able to form a correct judgment should be called before this committee to give their opinion on it. I feel that it is too serious a charge to be allowed to stand, and I feel very strongly that, as I said in the beginning, it is an outrage on the American people, and particularly on the American Navy.

Senator PITTMAN. Admiral, in the report of the General Board, "G. B., 425, Serial No. 699," to the Secretary of the Navy, under date of April 5, 1917, under article 3, paragraph 8, is the following. This is already in the record of yesterday, but I will repeat it here. [Reading:]

(h) Keep constantly in view the possibility of the United States being in the not distant future compelled to conduct a war singlehanded against some of the present belligerents and steadily increase the strength of the fighting line, large as well as small vessels—doing this with as little interference with the rapid building of destroyers and other small craft for the Navy and cargo ships for the Merchant Marine as possible.

That is the foundation of some questions I now desire to ask.

At the time we entered the war, we were carrying out the three-year naval program adopted in 1916, were we not?

Admiral BENSON. We were.

Senator PITTMAN. Which embraced the building of certain major ships?

Admiral BENSON. Yes.

Senator PITTMAN. Those major ships, of course, were considered by the General Board essential to the completeness and rounding out of our Navy?

Admiral BENSON. They were.

Senator PITTMAN. And yet is it not a fact, Admiral, that by reason of the demand upon this country to utilize all available yards for the construction of small craft, destroyers, most of which would probably be worthless after this particular war, and add no great strength to our Navy, we were compelled to defer and desist from the completion of these major ships under the building program?

Admiral BENSON. Practically in every case.

Senator PITTMAN. To that extent, therefore, our permanent Navy, by comparison with other navies of the world, was greatly weakened, was it not?

Admiral BENSON. In that respect; yes, sir.

Senator PITTMAN. If we had sent our fighting ships immediately to the war zone, they would have been placed in danger of destruction immediately, would they not?

Admiral BENSON. They would while in the submarine zone; certainly.

Senator PITTMAN. The loss of every one of our major ships during this war would have weakened our permanent Navy, would it not?

Admiral BENSON. It would.

Senator PITTMAN. The General Board, as had you as Chief of Operations, had those things in mind, as every chief of operations of every other navy would have them in mind, did it not?

Admiral BENSON. Yes.

Senator PITTMAN. And as you testified, your first thought was for the protection of our own coast and the preservation of our own Navy?

Admiral BENSON. Absolutely, sir.

Senator PITTMAN. It is possible—it is even probable—that the British Admiralty would have been perfectly willing to have had our battleships bear the brunt of the fight in the North Sea. It is perfectly possible that the British Admiralty would have been perfectly willing that our battleships should have been risked in any danger zone. I do not think that is a reflection on either of those admiralties. But because they were willing for that to happen, I do not conceive that that is any reason why you should have been willing for it to happen.

The CHAIRMAN. Is that a question?

Senator PITTMAN. No; I am just asking it for a foundation for other questions.

I want to ask you whether or not you agree with what all agree to be Admiral Sims's position, that we should have sent over immediately on the beginning of the war all our available craft to the other side?

Admiral BENSON. I do not think we should, sir, for the reasons I have already stated. I did not think so at the time and I do not think so now; and as I have repeatedly stated, mine was the responsibility; I had to exercise my judgment; and my first thought in the beginning, during, and always, was to see first that our coasts and our own vessels and our own interests were safeguarded. Then when I was satisfied that that was done as far as I could, with what we had, then to give everything we had and to do everything we possibly could for the common cause.

Senator PITTMAN. Admiral, do you know of any delay on your part or on the part of the Secretary of the Navy, whether justifiable or not justifiable, in acting upon any recommendation of Admiral Sims that affected the duration of the war?

Admiral BENSON. I do not think in the slightest, Senator; and I do not think there were any delays that were material to the cause practically in any way, either by the Secretary or by myself.

Senator PITTMAN. Yes.

Admiral BENSON. In assuming responsibility as I did, and have, for the naval operations, I do not admit that there was any unnecessary delay or any improper compliance with the demands of the situation; but, on the contrary, I insist that the situation was met in

the most efficient and thorough manner and as far as possible and the facilities we had and the situation permitted.

Senator PITTMAN. That is all.

The CHAIRMAN. Admiral, after we entered the war did the British lose many major ships?

Admiral BENSON. I do not recall that they did, sir.

The CHAIRMAN. So that if we had sent our ships over there, there was no more reason to suppose that we would lose them than to suppose that the British would lose theirs, was there?

Admiral BENSON. I think there was, sir. The recommendation was to send these ships—the one I am referring to now, the division of our battleships—to Brest. They would have had to pass through the submarine zone, and they would have been exposed to the submarine danger there; and had they ever gone outside of Brest they would have gone immediately into the very thick of the submarine zone; and from the fact that they were there, greater efforts would have been made to attack them whenever they left the harbor. It would have taken a large number of destroyers to protect them whenever they moved, wherever they moved. It would have necessitated additional fuel and provisions; and in addition to the danger to which they were exposed, as I sized up the situation, and I believe correctly, they would not have served any good purpose, and we would have been injecting into the problem an element that was adding to its troubles rather than decreasing them.

The CHAIRMAN. You are referring to the suggestion of sending battleships over to Brest?

Admiral BENSON. That is, the older ones.

The CHAIRMAN. That was not especially a recommendation. That was simply a suggestion.

Admiral BENSON. Yes; I thought that—

The CHAIRMAN. Later on did not Admiral Sims recommend that some battleships be sent over to be used as they subsequently were used?

Admiral BENSON. With the Grand Fleet?

The CHAIRMAN. Yes.

Admiral BENSON. Yes, Mr. Chairman.

The CHAIRMAN. And those vessels, of course, would have been under the same danger that British battleships were?

Admiral BENSON. Yes.

The CHAIRMAN. And they were under the same danger and were not lost?

Admiral BENSON. Until they got within reach, where the Grand Fleet could protect them with their destroyers.

The CHAIRMAN. Yes; and they were not?

Admiral BENSON. They were not lost.

The CHAIRMAN. Was the policy of the department primarily to save ships; that is, not to put them in positions of danger, so that they might be saved, even though by putting them in positions of danger they were doing good?

Admiral BENSON. No, sir.

The CHAIRMAN. It was not?

Admiral BENSON. Decidedly not, unless the situation warranted it. For instance, when the German submarines appeared on this coast, I recommended, and the Secretary approved the policy, of not

stopping our transports, even with our troops on board, for a moment; and they were never held up for a period of a day, I do not think, on account of the presence of German submarines. No one in the Navy hesitated. On the contrary, we insisted that any vessels that we had and that were available should be utilized wherever their services were needed and they could be of benefit.

The CHAIRMAN. So that you would not say that your policy was primarily to look after the safety of the vessels of the Navy?

Admiral BENSON. Decidedly not, for its safety, except as I have already testified in safeguarding the interests of the battleship forces. That was one of my duties, sir. Not primarily.

The CHAIRMAN. If possible, in connection with their duties that they were performing, to make them as safe as possible in the performance of those duties?

Admiral BENSON. Yes.

The CHAIRMAN. Do you feel that it is a reflection on the Navy and 500,000 young men that served in it that persons who were ultimately responsible for the conduct and the policies of the Navy during the war had not in all respects done what they should have done?

Admiral BENSON. I think it would be; yes.

The CHAIRMAN. That is, a reflection on you or a reflection on the Secretary of the Navy would be a reflection on all these men?

Admiral BENSON. It would reflect on the whole service.

The CHAIRMAN. You do not make any difference between a reflection upon the Navy as a body of men and upon the Navy Department?

Admiral BENSON. I think the whole service would be included, sir. But I do not admit—and the statement is not borne out in fact—if it were a true statement and bore anything on its face that could be substantiated; and coming as it does, a statement of that kind I consider most decidedly—

The CHAIRMAN. That is because you do not think it was based on facts. Now, I say if it was based on facts, do you not think it is probably proper that it should be made?

Admiral BENSON. If it is based on facts, it should be made.

The CHAIRMAN. It should be made if it is based on facts?

Admiral BENSON. It should be made if it is based on facts.

The CHAIRMAN. Therefore, if any one had the opinion that the Secretary of the Navy or the Chief of Operations had not performed their duties as they should, it is essentially important that that fact should be brought out, is it not?

Admiral BENSON. If any such fact existed, it certainly should be brought out.

The CHAIRMAN. And in bringing it out, it is no reflection on the rest of the Navy?

Admiral BENSON. I think in a way the fact that anyone in the Navy had been negligent would reflect on the balance of the service.

The CHAIRMAN. Then you think that in order not to reflect on the service the actions of those responsible should be covered up?

Admiral BENSON. Certainly not.

The CHAIRMAN. Then, if it is not to be covered up, you do think it is perfectly proper that it should be brought out?

Admiral BENSON. Should be brought out, absolutely.

The CHAIRMAN. You have stated that you know of no case where there was any material delay either on your part or on the part of the Secretary of the Navy?

Admiral BENSON. Yes. Of course I mean during the war.

The CHAIRMAN. During the war?

Admiral BENSON. Yes.

The CHAIRMAN. You do not refer to the time immediately before the war?

Admiral BENSON. No; I can not refer to that.

The CHAIRMAN. Admiral Plunkett made the following statement in his testimony, on page 1293 of the typewritten record. [Reading:]

Up to 1915 we had been conducting battle exercises by opening the engagement by firing a single gun in order to get the approximate range of the enemy, followed by another gun after that shell had landed, some 20 second later, also with a view of getting the range, some correction being applied to that second shot, in other words a method of approximation. The question of range finding was then taken up seriously. Up to 1915 we had comparatively no efficient range finding instruments. Those are instruments of prime importance, and at the outbreak of the war we had only a sufficient number of them for our first lien ships. The ships in reserve had practically no range finders worth mentioning.

All those things, and the concentration on gunnery training brought home to us the fact that we were terribly undermanned, and it was those reports that Capt. Tausig speaks of here which flowed over my desk in volumes, which kept me pegging away at the Secretary of the Navy all the time asking for more men, and representing to him the fact that we needed men and officers.

Now, it may seem odd, when I was a subordinate officer, that I took those matters to the Secretary of the Navy; but I assure you that I took them there because the Chief of Naval Operations had exhausted all the talk he had in his system.

The CHAIRMAN. Who was the Chief of Naval Operations?

Admiral PLUNKETT. Admiral Benson. He said, "If you can get them, go and get them. I can not get them."

Does that indicate that there was some trouble or delay in getting what you asked for?

Admiral BENSON. Was not that before the war, Mr. Chairman? I have already testified that I did think we were short of personnel, and there was delay in providing it. I think I have stated that, that we were short of personnel; and that is a fact.

The CHAIRMAN. And you admit that there were delays before the war?

Admiral BENSON. Before the war, in providing proper personnel.

The CHAIRMAN. And you think that had a direct effect on the situation after we got into the war?

Admiral BENSON. Yes; to a certain extent it did, naturally.

The CHAIRMAN. You have spoken about the British naval officers who were constantly working with you in the department. Who were these British naval officers?

Admiral BENSON. There was Commodore Gaunt of the British Navy who was there pretty constantly. He had an assistant who was there pretty constantly. Later on Admiral de Chair was over here for awhile, Rear Admiral de Chair, who was over here with the commission; and then a little later on Admiral Grant of the Royal Navy was here permanently in Washington.

The CHAIRMAN. There was two British naval officers?

Admiral BENSON. In addition to those, there were other officers who came over here connected with the mine proposition. They, of course, only came into the office occasionally. It was a study proposition, in connection with mines, and so on.

The CHAIRMAN. Capt. Gaunt was the principal one of those two British officers, was he not?

Admiral BENSON. He was the principal one up to the time when Admiral Grant came. We suggested that in order to make the situation more complete—the cooperation more complete—here, that he then, instead of being at Bermuda or at Halifax as he had been before, come to Washington and make his permanent residence, practically, here in Washington.

The CHAIRMAN. What was his rank?

Admiral BENSON. He was an admiral.

The CHAIRMAN. Admiral Grant?

Admiral BENSON. Admiral Grant.

The CHAIRMAN. And Gaunt was a captain?

Admiral BENSON. He was a commodore.

The CHAIRMAN. A commodore?

Admiral BENSON. And he had commanded one of the ships in the North Sea force.

The CHAIRMAN. And he was the British naval attaché?

Admiral BENSON. He was the British naval attaché.

The CHAIRMAN. Was Admiral Grant the British naval attaché?

Admiral BENSON. No; he was representing the British naval forces on this side.

The CHAIRMAN. And he came over here when?

Admiral BENSON. I think in the latter part of 1917 or the early part of 1918. I would have to refer to the records to tell you that date. He was here in the summer of 1918.

The CHAIRMAN. At any rate, not during the first six months of the war?

Admiral BENSON. I do not think he was here during the first six months; no.

The CHAIRMAN. We had a naval attaché in Great Britain?

Admiral BENSON. Yes.

The CHAIRMAN. When Admiral Sims went over, did we not?

Admiral BENSON. We did.

The CHAIRMAN. Would you consider that he was as much the representative of the American Government as Admiral Sims at that time, so far as naval matters were concerned?

Admiral BENSON. Only in a very certain way. The situation developed very rapidly over there, Mr. Chairman, as you recollect. When Admiral Sims went over we were not then at war, and we were at war by the time he reached over there, and the situation developed very rapidly. For instance, the destroyers were sent over, had their orders, or we had decided to send them over before we got any cable, or before Admiral Sims had had time to answer, and possibly before he arrived. And then it was necessary to put him in command of the forces over there and give him general charge. The idea was that we should have an officer of higher rank, and Admiral Sims was selected to fill that position, and I considered that from the time he reached London until he left there he was our proper and our naval representative in London.

The CHAIRMAN. And he was the principal one on whom you depended?

Admiral BENSON. Yes.

The CHAIRMAN. Would you say that the information you received from the British naval attaché over here was in any way commensurate with the information that you received from Admiral Sims after he had begun to perform his duties on the other side?

Admiral BENSON. I think it was commensurate with it in a way, and in many things we got almost the same information, as I recall it, that we did, possibly in a different form from what we did from Admiral Sims; not in the great detail, and necessarily did not and could not refer to our own forces; but I mean of the general situation. Of course Admiral Sims was kept directly in touch.

The CHAIRMAN. Would you say that you would follow those recommendations as quickly as you would those of Admiral Sims?

Admiral BENSON. No; I do not, by any means. I mean that I would weigh both, though, very carefully.

The CHAIRMAN. In your testimony of yesterday you stated as follows: [Reading:]

The CHAIRMAN. Now, Admiral, you state that you were responsible for the policies that were carried out by the department during the war?

Admiral BENSON. Yes; that is regarding naval operations.

The CHAIRMAN. Were not those policies in regard to naval operations on the other side based largely, almost entirely, on the representations made to you by Admiral Sims?

Admiral BENSON. On the information that we got from there; yes.

The CHAIRMAN. And the recommendations?

Admiral BENSON. Yes; very largely on the recommendations.

Admiral BENSON. Yes. Might I modify that with reference to the operations? I understood you referred to the war zone, of course.

The CHAIRMAN. The operations in the war zone?

Admiral BENSON. Yes, sir. I would like to modify that statement, or make that addition to it, that the policies I acted upon from Sims's advice referred to operations in the war zone.

The CHAIRMAN. And it was principally on questions related to the war zone that you got your recommendations and information from Admiral Sims, was it not?

Admiral BENSON. Principally.

The CHAIRMAN. In making surveys, to which Senator Pittman has alluded, of production in this country and the material and so forth, did you not also make a survey of the personnel of the Navy?

Admiral BENSON. That was constantly under consideration.

The CHAIRMAN. Did you find it entirely satisfactory?

Admiral BENSON. I did not, sir.

The CHAIRMAN. The naval program that was adopted in 1916 was not a program adopted for immediate use in the war, was it, or in case we should go into war immediately? It was a future program?

Admiral BENSON. In 1916 it was for the general building up of the Navy for future use.

The CHAIRMAN. And it would not have been possible to get that program in operation for a number of years?

Admiral BENSON. I think three years was the term, sir.

The CHAIRMAN. Three years was the term; therefore it would not have been possible to get it into operation before that time?

Admiral BENSON. Not all of it; no, sir.

The CHAIRMAN. Nor very much of it, would it?

Admiral BENSON. Well, I think the destroyers and submarines that were appropriated for might have been in about a year and a

half or two years; we counted on them. Eighteen months or two years, I think, we counted on getting destroyers and submarines.

The CHAIRMAN. Therefore you think we should have gone to work at once on that part of the program?

Admiral BENSON. I think we did go to work at once, as far as the conditions would permit, on all of it. There were about 156 vessels, as I remember, we finally concluded on in that program, and the number that could be built at once, according to the bill; I feel that work was begun just as quickly as it was possible to get plans and other things in readiness for that, and contracts to be placed.

The CHAIRMAN. But it was not critical work that was being done for an immediate emergency?

Admiral BENSON. No; it was not for an immediate emergency.

The CHAIRMAN. How many of the destroyers that you had in that program took part in the war?

Admiral BENSON. I think possibly most of them. I could not say, sir.

The CHAIRMAN. Most of the destroyers provided for in that program took part in the war?

Admiral BENSON. I believe they did; but I could not state that without reference to the records. That is a detail that I can not carry.

The CHAIRMAN. You stated, I think, that if we had withdrawn our forces previously, at the beginning of the war, from this side, and had sent them over to the other side, it would have induced Germany to send her submarines over here?

Admiral BENSON. I believe it would.

The CHAIRMAN. At that time?

Admiral BENSON. I believe so.

The CHAIRMAN. Do you not believe if she had sent her submarines over here, it would have caused considerable further delay in sending forces over to the other side?

Admiral BENSON. I think that would have depended upon the development of the situation.

The CHAIRMAN. Do you not think that if 3 or 4 submarines had come off our coast, it would have been very difficult to send any forces to the other side?

Admiral BENSON. I say that would have depended upon the development of the situation, how successful they were and what vessels we had for sending to the other side.

The CHAIRMAN. She did not do so?

Admiral BENSON. She did not.

The CHAIRMAN. The fact that she did not do so rather bore out the recommendations, did it not?

Admiral BENSON. I think it bore out my viewpoint, that we immediately tried to be prepared for their arrival; and they, knowing that, did not send them.

The CHAIRMAN. You think that the preparation we had on this side was what kept them from sending them?

Admiral BENSON. I do.

The CHAIRMAN. You do not think they could have sent them over here to menace our seacoast and keep us from sending vessels over to the other side?

Admiral BENSON. I think they could have sent them over here to menace our seacoast, and have done a tremendous amount of damage.

The CHAIRMAN. Do you not think they would have been warranted in sending submarines over, and that it would have been good policy for them to do so?

Admiral BENSON. I think they would have been warranted in doing it, and it would have been good policy.

The CHAIRMAN. You think they would have been warranted?

Admiral BENSON. I think so.

The CHAIRMAN. You think they would have delayed us, and that it was a mistake that they did not send them?

Admiral BENSON. I think it was a mistake.

The CHAIRMAN. And you think that the fact that they did not send them over——

Admiral BENSON. I have never been able to account for it.

The CHAIRMAN. You have never been able to account for that?

Admiral BENSON. No, sir.

The CHAIRMAN. But that rather bore out the plans made on the other side, did it not?

Admiral BENSON. You always have one chance out of two, Mr. Chairman, to be right. When you make a prediction you are either right or wrong. But I had to act on my judgment; I could not take chances; I had to view the situation and act according to my judgment, and my natural inclination and my duty, as I saw it, was to safeguard American interests, and I did that; and whether I was right or wrong, I should do the same thing again.

The CHAIRMAN. But you think it was more important to keep them away from this coast than it was to go over and put down the menace on the other side?

Admiral BENSON. If we could have been sure that we could prevent their coming over here, and made it impossible for them to come, then of course that would have been the right thing to do.

The CHAIRMAN. Do you not think it was as important to feed our troops over on the other side, to supply them with food, as it was to get them there?

Admiral BENSON. One was as necessary as the other.

The CHAIRMAN. Do you not feel that our contribution to putting down the submarine menace helped greatly toward so feeding the troops that we got there?

Admiral BENSON. We fed them, Mr. Chairman. I can only give results as the evidence of what happened.

The CHAIRMAN. And you feel that our contribution to putting down the submarine menace did directly contribute to that, do you not?

Admiral BENSON. I think it helped the situation. As I said yesterday, what we did was of material assistance.

The CHAIRMAN. You stated that our part in finishing the war was done by the troops on the other side.

Admiral BENSON. That was the final contributing force, in my opinion, yes, Mr. Chairman.

The CHAIRMAN. That was the main thing that was done by this country, was it not?

Admiral BENSON. No; of course they could not have done that if the Navy had not gotten them over there.

The CHAIRMAN. And you stated yesterday that the Navy got over about 900,000?

Admiral BENSON. I made it about 900,000; and we brought back practically all of them.

The CHAIRMAN. And in getting them over what ships did we use?

Admiral BENSON. That was very largely the ex-German ships.

The CHAIRMAN. That is the transports?

Admiral BENSON. The transports.

The CHAIRMAN. And in guarding those transports what did you use?

Admiral BENSON. In guarding those ships we used the cruisers and destroyers and gunboats.

The CHAIRMAN. Very many cruisers?

Admiral BENSON. We used practically all we had, finally.

The CHAIRMAN. Did you use armored cruisers?

Admiral BENSON. We used the armored cruisers, yes, sir.

The CHAIRMAN. Did we use them during the first six months of the war?

Admiral BENSON. I do not think they were used during the first six months of the war.

The CHAIRMAN. Did we use any cruisers of any sort during the first six months of the war?

Admiral BENSON. I said transports. I think we did, yes, with the transports, and of course transports were always taken; and they were accompanied by destroyers.

The CHAIRMAN. Did we use many destroyers for that service?

Admiral BENSON. As many as we had. I forget how many we had. We had about 50, altogether.

The CHAIRMAN. We used as many as we had? You do not mean to say we used all our destroyers for that?

Admiral BENSON. No; we sent over a number during the first months to the other side.

The CHAIRMAN. And for escorting those troop ships we used very few, did we not?

Admiral BENSON. We used few destroyers.

The CHAIRMAN. And you would say, therefore, that the protection of our coast and the limited use of our Navy in protecting these troops that went over was the principal work that was done by the Navy during the war?

Admiral BENSON. No, sir; I do not say that either. I say that the whole problem of getting the troops over, getting the ships over, helped out in the submarine zone, as with the escorting of not only our own ships but British ships, and we had a very large patrol force on the coast, or a fairly large patrol force on the coast of France, and in Gibraltar, and later on in the Adriatic.

The CHAIRMAN. But were not the major part of the activities of the Navy during the war taken up with putting down the submarine menace?

Admiral BENSON. I do not think so. I think the major part of the Navy was getting our troops and munitions and supplies over there.

The CHAIRMAN. I know, but you have already testified that there were not very many ships used in connection with that.

Admiral BENSON. We used our destroyers and cruisers.

The CHAIRMAN. A few destroyers?

Admiral BENSON. Yes; to the limit that we could, because our destroyers were being used in the submarine zone on the other side. For instance, we sent destroyers from this side, and they were met. For instance, we maintained a fuel-oil ship in the mid-Atlantic, and destroyers went over there, and in order to use them to the maximum they refueled and came back. And we manned all of the troop transports. We manned practically every vessel. As soon as the operation got to going well we manned and controlled and operated all of the vessels that were used by the Army for munitions.

The CHAIRMAN. That is, you put some men on these merchant ships?

Admiral BENSON. Every one of them we manned throughout absolutely, until we were ultimately operating nearly 450 merchant ships in my office, in addition to the naval force.

The CHAIRMAN. That is, the personnel of the Navy was taken from the fighting ships and put on these merchant ships?

Admiral BENSON. No; but—

The CHAIRMAN. To a large extent?

Admiral BENSON. But we took men from the reserves, and, as I have stated, sometimes we took the captain and the entire crew and officers, when they suited the purpose, when we took a vessel, and they then became a part of the Navy, and we operated them as a part of the Navy, and that was all operated from my office.

The CHAIRMAN. You have talked about reflection on the Navy in criticizing what you did or what the Secretary of the Navy did. It seems to me it is a reflection on the men who fought in the anti-submarine warfare that we had over there to belittle or minimize the part that they took in the war. It seems to me that they did very good service; very great and very useful service.

Admiral BENSON. I do not understand you, Mr. Chairman.

The CHAIRMAN. I am explaining. They did very excellent and useful service during the war, and to say that the work that they did did not contribute in any way toward shortening the war, I think is rather a reflection on them, don't you?

Admiral BENSON. I do not consider that any evidence I have given or any remarks I have made in any way can possibly be construed into criticism of the force we had over there. If I have made any such impression I most earnestly—

The CHAIRMAN. I do not think you are criticizing what they did.

Senator PITTMAN. Will you not please let the witness finish his answer, Mr. Chairman?

Admiral BENSON (continuing). I most earnestly protest that I have not by word or implication intended in any way to belittle what our troops or our men did over there in that service.

The CHAIRMAN. All right.

Admiral BENSON. I can not too strongly emphasize, Mr. Chairman, that there was never a thought entered my mind of that, and I can not understand that anything I have said could possibly be construed in that direction at all. If so, I most earnestly protest that it was never my intention to do so.

The CHAIRMAN. I do not think you have criticized the performance of their work, but you do lay stress on the fact that the work they did had nothing to do with shortening the war.

Admiral BENSON. I do not believe that it did.

The CHAIRMAN. Precisely.

Admiral BENSON. But it helped the situation. I have stated more than once that I thought it materially helped the situation, and it kept up the morale of the Allies in doing the tremendous work they did, and it undoubtedly did help to save our own troopships and supply ships as they went through the danger zone. It helped in a thousand and one ways to get them there. And I did not suppose that that fine distinction would be made between the two cases, and that the work in their special case would be differentiated from the general results of the whole thing. I did not anticipate that that fine distinction would be made, and I did not intend that it should be made in my evidence.

The CHAIRMAN. But if it helped to sustain the morale of the Allies and helped to supply the Army and the Allies themselves, I can not see why it did not help to shorten the war.

Admiral BENSON. I helped in that bearing. It helped only to get our troops over there, I said; and I repeat and insist that the work in the final shortening of the war, as far as the United States was concerned, was in getting the troops into France, and finally the formation of the American Army under Gen. Pershing, and that anything that contributed to that result helped in the final ending of the war.

The CHAIRMAN. That is, helped to shorten the war?

Admiral BENSON. Helped to shorten the war, and now I do not think that that is in any way inconsistent with any evidence I have given; and if so, I would like the matter cleared up.

The CHAIRMAN. How are you going to clear it up? You do admit that it helped to shorten the war?

Admiral BENSON. They helped to shorten the war. By helping the morale they helped the general situation.

The CHAIRMAN. They did, then, help shorten the war?

Admiral BENSON. By getting the troops over.

The CHAIRMAN. Then it is only a matter of opinion as to how much they helped to shorten the war, is it not?

Admiral BENSON. It must necessarily be a matter of opinion—the whole thing. I am giving my opinion as nearly as I can, in the whole matter.

The CHAIRMAN. And others have given their opinions?

Admiral BENSON. Yes.

The CHAIRMAN. For instance, Admiral Sims thinks that it helped to shorten the war four months. Now, you think that it helped to shorten the war. How much did it help to shorten the war? That is simply a matter of your opinion.

Admiral BENSON. I must repeat what I have said, sir, that it only helped in so far as it contributed in the way that I have stated. That is my opinion, that it did. It may not have helped it at all. It could have been possible for us to have gotten our troops over there with the protection we gave them. Of course, the protection in the submarine zone was given by the forces we had over there, by the destroyers we had over there, and it might have been that from any other cause, that the effort we made might not have helped at all; but I believe it did help. But it is very difficult for me—I am trying to give you, Mr. Chairman, a straight, honest answer to your ques-

tions, and I can not quite appreciate the keen differentiation in regard to my replies. I want to be perfectly frank and straightforward in my replies, and I do not exactly understand the situation.

The CHAIRMAN. Why, Admiral, if the work done by these men did not help to shorten the war, then it seems to me their work was in vain. If, on the other hand, it did help to shorten the war, it is up to anyone to have an opinion as to how much it helped to shorten the war; and Admiral Sims stated that it shortened the war four months.

Admiral BENSON. I do not agree to that.

Senator PITTMAN. Pardon me; wait a minute, Mr. Chairman. I object to that statement as being not founded on the evidence. Admiral Sims did not say that it shortened the war four months. He said the inefficiency lengthened the war four months.

The CHAIRMAN. Well, that is a rather subtle distinction.

Senator PITTMAN. It is not subtle, at all.

The CHAIRMAN. I do not recall exactly what he said; but at any rate, he said that it made a difference of four months in shortening the war.

Senator PITTMAN. He said that it lengthened the war four months, and that during that four months they lost 500,000 lives. There is quite a distinction.

The CHAIRMAN. Exactly, because during that four months 500,000 lives were lost.

I think you see the distinction now, do you not, Admiral?

Admiral BENSON. I am perfectly willing to admit my stupidity, Mr. Chairman, but I can not—

The CHAIRMAN. Well, Admiral, if it did help to shorten the war, it helped to shorten it a certain length of time. You may not know how long, but it shortened it a certain length of time?

Admiral BENSON. It contributed to the general cause. I believe that it did, to a certain extent, because there are so many things that enter into the situation, Mr. Chairman, that it is impossible for me to give a more definite reply than that.

The CHAIRMAN. Then, if it shortened the war a certain length of time, you might have one opinion about what that length of time was, and another man might have another opinion, might he not?

Admiral BENSON. Absolutely; I can answer that.

The CHAIRMAN. Now, you have stated that even allowing for a loss of 800,000 tons a month—and that is the amount that was lost in April, 1917—the Allies could have held on until the end of the war or until the matter was brought to a military decision. I take it that the matter would not have been brought any sooner to a military decision, would it, under those circumstances?

Admiral BENSON. What I feel is, sir, that with the supplies they had on hand and the way the thing was going, and the way the situation was being developed, they could have held on until a final decision was reached—that is, after we got into it.

The CHAIRMAN. The armistice was signed—

Admiral BENSON. November 11, 1918.

The CHAIRMAN. And we went into the war on April 6, 1917?

Admiral BENSON. Yes.

The CHAIRMAN. And during the month of April, 1917, 800,000 tons of shipping were lost. That is 20 months, is it not, or a little over 19 months?

Admiral BENSON. It is a little over 19 months; a few days over 19 months.

The CHAIRMAN. That would involve, during those 19 months, the loss of something over 15,000,000 tons of shipping, would it not?

Admiral BENSON. I take your figures as being correct, sir.

The CHAIRMAN. I think that is right. And you think that the Allies could have lost that amount of shipping in that time and still have kept on in the war?

Admiral BENSON. You will have to remember, Mr. Chairman, that shipping was being constructed very rapidly at that time, and the curves of destruction and production were going, so that while we might never build as rapidly as they were being destroyed, we were increasing the building very rapidly, and shipping was being constructed; and I still feel that the——

The CHAIRMAN. What was the amount of shipping that was constructed during that time, that was put in operation?

Admiral BENSON. I could not say without reference to actual records, sir; but I do remember, in a general way, that it was being built very rapidly.

The CHAIRMAN. Was it more than 3,000,000 or 4,000,000 tons during that whole time?

Admiral BENSON. I could not say.

The CHAIRMAN. Most of it was during the latter part of that time, was it not?

Admiral BENSON. They were building it. Just at what time and how much I could not say without reference to the records.

The CHAIRMAN. Then you do not agree with Mr. Hoover's statement about the criticalness of the situation, or with Admiral Sims's testimony about that?

Admiral BENSON. I think it was critical, as I have already stated, but I do not think it was absolutely vital, or would have resulted in the ending of the war.

The CHAIRMAN. It could not have been very critical if we could have taken the figures during the month when the most shipping was sunk, and could still have kept on until the end of the war. However, you are willing to go on record as saying that?

Admiral BENSON. I am willing to go on record with my evidence, absolutely, sir.

The CHAIRMAN. On the 1st of May, 1917, Admiral Sims sent the following cable to the Navy Department. [Reading:]

Sent: May 1, 1917.

To: Secretary of the Navy.

British Admiralty has decided to give trial to the convoy scheme described in my last dispatch. Instead of present plan of naval forces operating independently against raiders, there will be a high-sea convoy against raiders, such convoy to be established as quickly as possible on all main trade routes, and on approach to dangerous areas on this side, will be met by destroyers and escorted into port. Hampton Roads and New York have been proposed as assembly ports for eastbound vessels on our coast and Gulf, with convoys sailing every fourth day. Plan decided on after long consideration by Admiralty and war council, and is considered absolutely necessary. It will strain British resources of personnel and ships to the limit, and we must assist by taking one route, at least, if the plan is to be carried out. Admiralty desire to be informed whether we can provide escorts for convoys sailing from the rendezvous at New York. British estimate about 14 ships will be required for New York service, and larger numbers for other routes, including Mediterranean and South America. Escorts should have sustained sea speed of at least 12 knots, and 6-inch guns. I very

urgently recommend favorable action. Through British naval representative at Washington details of plan will be communicated from time to time, as necessary
Sims.

The CHAIRMAN. So that you received distinct notice on May 1 that the British had decided to take up the convoy plan, and were asking for our cooperation?

Admiral BENSON. We received that message. I would like at this stage to invite the attention of the committee and the chairman to this fact. The character of the questions put to me a little earlier in the hearing seemed to me to indicate that Admiral Sims was responsible for all policies. I wish to invite attention to the fact that that message clearly indicates that he got all of his information and his ideas as to what should be done from the British Admiralty; and as I stated before, he simply transmitted them to us in the Navy Department.

The CHAIRMAN. I think the British Admiralty consulted with him in making up all plans, so far as we were concerned, did they not?

Admiral BENSON. I think he consulted with them and got their ideas, sir. To answer your question directly, now, we did have that message.

The CHAIRMAN. That makes it all the more authoritative, does it not?

Admiral BENSON. Coming from the British Admiralty?

The CHAIRMAN. Coming directly from the British Admiralty, through Admiral Sims?

Admiral BENSON. Yes; but I want to emphasize the fact that Admiral Sims was simply the means of the information that came to us from the British, except what we got from other sources.

Senator PITTMAN. Was I correct in hearing it stated in the letter that they decided it after a long conference?

The CHAIRMAN. I think that is in the letter, that it had been decided on after a long conference with the war council.

Senator PITTMAN. About three years, was it not?

The CHAIRMAN. I do not know the length of time; but at any rate they had reached their results, after watching the operation of the submarine; and at least I should think that might be of some value to us, to get the results they had on it, reached by them, was it not, Admiral?

Admiral BENSON. It was of value; and if I mistake not, I think we got into the convoy almost as soon as the British did. But, as I said yesterday or at some time in my hearing, it was a very serious policy to be adopted, and I do not think any right-minded American could settle down quietly and accept his instructions practically from the British Admiralty. I, for one, am not willing to do it.

The CHAIRMAN. Did not our going in have anything to do with the British taking up that plan?

Admiral BENSON. Did not our going in?

The CHAIRMAN. Did not our going in and helping them have something to do with their taking up that plan?

Admiral BENSON. I think they tried it before they accepted it.

The CHAIRMAN. They tried it?

Admiral BENSON. I think they did.

The CHAIRMAN. But were not the plans for adopting the convoy system based largely on our cooperation with them?

Admiral BENSON. I so understand from that message; and as I stated yesterday in my hearing, I think their first convoy left Gibraltar about the 1st of May; I think about that time it was sent.

The CHAIRMAN. Showing that it was in operation?

Admiral BENSON. That they were trying it; going at it and preparing for it. It was good judgment on our part to watch them until they did try it, I think.

The CHAIRMAN. But it was at a very critical time?

Admiral BENSON. It was at a critical period of operations.

The CHAIRMAN. Did you not state that you thought the work done by the Chief of Operations was of more importance than that of any one on the other side?

Admiral BENSON. I do not think there is any comparison, sir.

The CHAIRMAN. You think that it was of more importance?

Admiral BENSON. I think it was decidedly more important.

The CHAIRMAN. And you think, in general, that the work done by the Chief of Operations, or whatever he may be called, in any service, is of more importance than the work done by the commander in the field?

Admiral BENSON. That does not follow, sir; but I think it is always of vital importance, and I think in this case, as I say, there was no comparison between my position and the one that Admiral Sims held.

The CHAIRMAN. You think there is no comparison between them, and in every respect your position—

Admiral BENSON. I beg your pardon, sir?

The CHAIRMAN. I say you think in every respect your position was more important than that of Admiral Sims, in the war?

Admiral BENSON. Absolutely; no comparison between them. Admiral Sims was not practically in the field.

The CHAIRMAN. He was in command, however, of our forces?

Admiral BENSON. Yes.

The CHAIRMAN. That went in the field, was he not?

Admiral BENSON. Yes; well, that portion of it.

The CHAIRMAN. The testimony yesterday quoted Admiral Wilson's testimony. [Reading:]

I have no hesitation in saying that no nation upon the approach of war has had a force of battleships more nearly prepared for battle than was the force to which I was attached and which spent the winter of 1916-17 in southern waters; and I feel sure that if this force had engaged an enemy on its cruise north in the spring of 1917, the victory would have been ours.

That refers, does it not, to the condition of the battleships themselves and not to the fleet?

Admiral BENSON. I think it refers to the battleships themselves, and the highly trained condition of the personnel on board of them, or that they had at the time.

The CHAIRMAN. Of the battleships themselves?

Admiral BENSON. Of the battleships themselves.

The CHAIRMAN. At that time we were not at war. Therefore "an enemy" would refer to any nation, would it not?

Admiral BENSON. I so take it—a general term.

The CHAIRMAN. Then, do you think that Admiral Wilson would have been justified in saying if this force had engaged the British fleet on its cruise north, in the spring of 1917, that the victory would have been ours?

Admiral BENSON. I do think he would have been justified in making that statement.

The CHAIRMAN. Do you think he would have been justified in saying we could have met the German fleet at that time and the victory would have been ours?

Admiral BENSON. I doubt it.

The CHAIRMAN. Then you would not agree with the statement made by Admiral Wilson?

Admiral BENSON. Hypothetically, no.

The CHAIRMAN. Would you in any way agree with it?

Admiral BENSON. Well, it would have been touch and go with the German fleet, where you met them, Mr. Chairman, and how many of their small craft and destroyers and other vessels they had with them. If you met the whole fleet, of course the fleet as coming north with Admiral Mayo would not have successfully met them.

The CHAIRMAN. Do you think that the Germans would have simply gone out with battleships and a proportionate number of destroyers such as we had?

Admiral BENSON. I do not think they would; but they had a long distance to travel there, and their destroyers, I do not think, were very long-legged ones.

The CHAIRMAN. But you do not think they would have left behind their screening vessels?

Admiral BENSON. I do not think they would have gone out and made the attempt, if you get it right down to a fact.

The CHAIRMAN. Yes, but if we had met "an enemy?" That opens up the field to any nation.

Admiral BENSON. That opens up the field to any amount of conjecture; and I have to make the conjecture, if they had been there with all their destroyers and auxiliaries, and met that force; and the chances are most decidedly that they would have been successful against our ships.

The CHAIRMAN. Would you say that for an engagement in mid-Atlantic, the nation that had adequate screening forces, such as cruisers and battle cruisers and submarines and destroyers, would not be better off than the nation that had simply battleships and a few destroyers?

Admiral BENSON. Why, absolutely, Mr. Chairman.

The CHAIRMAN. Therefore they could bring those screening vessels out to mid-ocean, could they not?

Admiral BENSON. They could have brought some of them. They could even have towed their destroyers. They could have resorted to a good many devices. They could have fueled them in mid-ocean and resorted to many things and gotten them in that situation. The situation could have been made.

The CHAIRMAN. Could have been made, how do you mean?

Admiral BENSON. They could have gotten all their forces out in mid-ocean. That is not an impossibility.

The CHAIRMAN. Therefore the Navy with the screening vessels would have been in a better position than the Navy without them?

Admiral BENSON. Absolutely; there can be no question about it.

The CHAIRMAN. In the quotation that Senator Pittman yesterday took from Admiral Mayo's testimony, he gave the following paragraph [reading]:

When the active fleet arrived in Hampton Roads about the first of April after its training period in Cuban waters, it was in the best state of preparedness that it had ever been, and there was a feeling of confidence in the personnel of being able to cope with any emergency. The personnel was, however, on a peace basis, and the transfer of trained personnel for armed guard and other duty was already being felt in a decrease in efficiency. The destroyers that were first despatched to the war zone, though they were assigned to operations for which they had not been specially trained, showed the effect of their general training by the efficiency with which they at once entered into their new duties.

The next paragraph I think should also be added. [Reading:]

However, it should be pointed out that this fleet was lacking in the types of vessels essential to efficiency, such as battle cruisers, scout cruisers, light cruisers, and fleet submarines, and, furthermore, there are none even now available.

I think that should be taken in connection with the preparedness of the fleet as such.

On page 4585 of the testimony you stated [reading]:

Admiral BENSON. The only other thing that I can recall was that when I went to London in 1917, and before I left this side, there was a feeling that through some influence or other Admiral Sims was being persuaded to give too much attention to British shipping, and that our destroyers were being used too much for that and too little for our own vessels.

To what did you refer in that statement?

Admiral BENSON. I meant that there was a feeling—and I think I also added that I did not say whether it was correct or not.

The CHAIRMAN. Yes, you stated further along [reading]:

I do not mean to say that that feeling was justified, but I knew that it existed, and when I went to London, etc.

Admiral BENSON. Yes; there was a feeling over here that better security might be given to our ships in the submarine zone, and that Admiral Sims was too much impressed with the necessity or desirability of safeguarding British shipping—their ships, etc.

The CHAIRMAN. Our shipping at that time was not very large as compared with theirs?

Admiral BENSON. Not very large, Mr. Chairman; and I am not responsible for the feeling. I recognized that there was the feeling, and, as I stated yesterday, my friendship for Admiral Sims led me to warn him that that feeling was growing up. I did not say that it was justified and did not charge him with it, but I referred to that on the other occasion when I spoke to him about the situation.

The CHAIRMAN. Then you do feel he was perfectly justified in looking after the greater British shipping and not specifically looking after the American shipping?

Admiral BENSON. As far as I was informed I felt that Admiral Sims was performing his duties satisfactorily, and I can not put it any more definitely than that; and, as I stated yesterday, that applies, to the best of my knowledge and belief, both here and everywhere else.

The CHAIRMAN. In the statement made about the excellence of the gunnery of the Navy; the statement made by Admiral Plunkett, do you consider that that excellence in gunnery continued after the men had been taken off the ships to be used as armed guards on merchant vessels?

Admiral BENSON. Not to the same extent, no; it did not. It did not exist. Because many of those men had to be taken off in order to have good marksmen on those ships.

The CHAIRMAN. That did decrease the excellence of the gunnery of the vessels of the Navy?

Admiral BENSON. Yes; it did decrease the excellence of the gunnery of those vessels.

Senator PITTMAN. But it did increase the protection of the ships to which they were sent?

Admiral BENSON. It was the only way, or the best way, in which we could assist the general cause.

The CHAIRMAN. I think in Admiral Fletcher's testimony, as quoted yesterday, the statement was made that at the entrance of our country into the war, we were as well prepared as any country in the world at the outbreak of the Great War in 1914, and you did not agree fully with that statement?

Admiral BENSON. As well as I can recall it, my statement was that with what we had we were quite as well prepared as any other nation except possibly Germany; Germany, knowing that she was going into war or expecting to, I believe that she was better prepared.

The CHAIRMAN. And you stated also that in regard to personnel we were not prepared?

Admiral BENSON. There was a shortage of personnel. Well, I include that in what we had. For instance, our personnel that we had was trained to the highest pitch.

The CHAIRMAN. Would you say that the circumstances were similar? The World War had been going on for substantially three years when we entered the war.

Admiral BENSON. Yes.

The CHAIRMAN. You have testified that according to your professional opinion there was grave danger of our getting into the war?

Admiral BENSON. Yes.

The CHAIRMAN. We had been following the war and had learned lessons, presumably, from what was being done in the war. Would you say that with the immediate prospect of getting into it any time, that was a prospect in any way similar to the situation of the nations back in 1914 when this war was sprung on them without any notice, or practically with no notice?

Admiral BENSON. You want my opinion on that situation, do you, Mr. Chairman?

The CHAIRMAN. Yes.

Admiral BENSON. Well, I would state it in this way. For many years Great Britain and Germany had been facing each other across the North Sea. They had shifted their bases entirely from the Channel to the North Sea, and built up their naval stations there. They had had two or three little tilts in previous years that clearly foretold what was coming. They had their minds made up, and I do not know but what they had quite as much definite warning as to their getting into the war as we did.

The CHAIRMAN. You think the possibility of war between Germany and England at that time was as imminent as the possibility of our getting into this war in 1917?

Admiral BENSON. Hardly as imminent; but it was imminent. It should have necessitated more careful and greater preparation. That has been clearly shown. I am simply stating the problem in general terms. It is more or less hypothetical anyway. I can not get down

to any more close definiteness than that. Of course, after the 1st of January, 1917, things began to thicken very decidedly.

The CHAIRMAN. And you do not think that three years after the war that had been going on, with the possibility that there was of our getting in at any time without any notice whatever, that should have forced us to do something in the nature of preparation much more than the conditions in Europe prior to 1914 should have forced them to do the same?

Admiral BENSON. I think, from my professional viewpoint, that we ought to have done a great deal more than we did to prepare for war. I think I have already stated that, from my professional viewpoint.

I also think that Great Britain should have been very much better prepared than she was—tremendously much better prepared—when she went into the war; but I suppose that they were carrying out the policy of their people, just as we were.

The CHAIRMAN. This memorandum that was put into the record yesterday of February 4 from Admiral Badger to the Secretary of the Navy was that the plan that has been referred to a number of times in this investigation as having been lost?

Admiral BENSON. No, sir; I do not think so. I think that was February, 1917, the one that was lost.

The CHAIRMAN. What became of this plan?

Admiral BENSON. Seventeen, do you mean?

The CHAIRMAN. No; this plan.

Admiral BENSON. Those reports were all sent to the department, and I think it is stated there in each case the action taken. I was a member of the General Board, and after Admiral Dewey's death, I became the presiding member of it.

The CHAIRMAN. As I recall it, there was no—

Admiral BENSON. Well, they were acted on; so far as circumstances would permit, the record shows—

The CHAIRMAN. As I remember, there is no approval by the department of this plan. The testimony bears that out. On the other cases there was a direct approval by the department. There was no approval specifically.

Admiral BENSON. Whether it was approved specifically or not I will not say—

The CHAIRMAN. It was not acted on—

Senator PITTMAN. Let him finish his answer, Mr. Chairman.

The CHAIRMAN. I think that I am doing this in the proper manner.

Senator PITTMAN. Well, I object, that it is not the proper manner to interrupt the witness in the midst of an answer.

The CHAIRMAN. Were the recommendations made in this report followed?

Admiral BENSON. I believe they were, as far as the conditions would warrant.

The CHAIRMAN. That, of course, would cover a large field, would it not?

Admiral BENSON. Yes.

The CHAIRMAN. For instance, there was the recommendation to increase the enlisted force to 150,000 men, and the marines to 30,000.

Admiral BENSON. That was not carried out, I am quite sure.

The CHAIRMAN. This plan was submitted on February 4. How soon thereafter was an increase recommended by the Secretary in the enlisted personnel?

Admiral BENSON. I think in March of 1917 the President authorized the increase of the personnel up to 87,000, and the formation of a Naval Reserve. I think that was in March, 1917.

The CHAIRMAN. March 20, was it not?

Admiral BENSON. I do not remember the date; but I assume, though I could not state from memory that the Secretary must have recommended that to the President. Otherwise he would not have done it.

The CHAIRMAN. And the personnel was not increased to the amount recommended in this plan?

Admiral BENSON. I do not think it was, Mr. Chairman. Eighty-seven thousand was the limit, I think, set by Congress of the regular force.

The CHAIRMAN. Have you any knowledge that this was used as one of the plans of the department?

Admiral BENSON. As you understand plans, I think it was.

The CHAIRMAN. You think it was?

Admiral BENSON. Yes; that is not a plan. That is a report. It was carried out. I would like to state here, if I may, Mr. Chairman, that the points that have been brought into this discussion or report in regard to the principles of Mahan, and the question of plans, of course Mahan was writing general principles for ordinary war. Mahan also says a great deal about cooperating with allies which has not been brought in, and I am not prepared to bring it in. But this war was a very unusual one, the conditions were very unusual. It was a condition and not a theory that we were facing, and we had to meet it as rapidly and as efficiently as we could with what we had, and I want to state also that I was one who determined on the policies to be developed and carried out, and gave them to my subordinates. I hope that the impression has not been made here, because I have not been able to remember in detail a lot of these things, that there was ever any question as to who was at the head of the office of Operations, or who initiated and developed, or rather announced, policies that they were to follow, and left to my subordinates to develop.

I believe I said yesterday that I had confidence in them to develop the plans necessary for their execution, because they were properly carried out and executed.

The CHAIRMAN. You would not say that these recommendations were followed?

Admiral BENSON. Only so far as the situation warranted. I believe that to be absolutely true. I can not go beyond that.

The CHAIRMAN. Until specifically approved, such a recommendation or plan would not become a plan?

Admiral BENSON. Yes; often, Mr. Chairman. As I say, I was a member of the General Board, and there were a good many of those things as well as many others that I carried out, without reference to the Secretary, and then informed him—tried to keep him informed. I felt that the Secretary had confidence in me, and I told him I would go ahead and try to keep him informed as well as I could; but I frequently did things without reference to the Secretary, and then informed him afterwards of what I had done.

The CHAIRMAN. Did you approve this plan?

Admiral BENSON. To the best of my knowledge and belief, I did.

The CHAIRMAN. In the report dated March 6, 1917, there was a recommendation as follows [reading:]

(d) There is no doubt that, if desired by the Allies, sending immediately a number of destroyers to cooperate with the allied forces in the barred zones would greatly add to the moral effect, at home and abroad, of the participation of the United States in the war.

That indicates that the General Board considered the moral effect of sending vessels over there as great, does it not?

Admiral BENSON. Yes, sir; it does.

The CHAIRMAN. Have you anything else, Senator Pittman?

Senator PITTMAN. No.

The CHAIRMAN. I think that is all, Admiral.

Admiral BENSON. May I state to the committee that I feel I owe it to myself to reiterate the fact that in asking for Admiral McKean and Capt. Pratt to come here and give the committee the details, in view of the other important duties that I was performing, I did not prepare myself to answer many of these detailed questions that have been put to me, and my memory is such that it is impossible for me to do it. I simply refer the whole matter to the record and to what was accomplished in the war.

I also want to state that in regard to any answers I have made to any questions here, they have been of such a nature that it was a little difficult for me always to get at just the meaning, but they have all been answered to the best of my knowledge and belief; and I further want to emphasize the fact that I was in charge of the Office of Operations, and that while my subordinates were able and efficient, loyal and energetic, they simply carried out my policies and my ideas, for which I am the responsible head.

There is another thing. I find on consulting the record that I stated that I did not think that the Secretary of the Navy had given any orders about preparation. I noticed in one of the reports or letters that Senator Pittman quoted, he did give such an order, and I would like to correct that, so that by no means could I reflect in any way on the failure of the Secretary of the Navy.

The CHAIRMAN. You know of no other case, however, where he did?

Admiral BENSON. I can not recall, now; but I would just like to make that general statement.

The CHAIRMAN. You may be excused now, Admiral, and the committee will stand adjourned until Monday morning.

(Thereupon, at 1 o'clock p. m., the subcommittee adjourned until Monday, May 10, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

MONDAY, MAY 10, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE
COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, and Trammell.

The CHAIRMAN. The committee will come to order. Secretary Daniels, have you a statement to make in connection with the matters involved in this investigation?

Secretary DANIELS. I have; yes, sir.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY.

(The witness was sworn by the chairman.)

The CHAIRMAN. Will you proceed, Mr. Secretary?

Secretary DANIELS. Mr. Chairman and gentlemen of the committee, you are near the close of a hearing, which, from certain angles has given you a point of view of the American Navy which is wholly foreign to the spirit and achievement of the brave and chivalrous men who make up that honorable and honored service. On the part of certain critics, self-appointed, to ferret out the molehills of mistakes which they exaggerate into mountains, you have been wearied and the public nauseated with the abortive attempt to make a perspective in which a noble and notable accomplishment appears as the dim and fading background of a frontispiece of comparatively unimportant errors of judgment.

I have not come before your committee to answer criminations with recriminations. Ever since navies began there have been wide differences of opinion among officers as to the kind of ships, the caliber of guns, the training of men, the disposition of forces. Sometimes these differences have developed into acrimonious discussions. If you will search your record, you will find that some dozen years ago there was a spectacular attack upon the design of our battleships. Admiral Sims was perhaps the leading spirit of the small group of officers concerned, and received much publicity as a destructive critic. Presumably it was at that time that he made the remark ascribed to him by the World's Work for August, 1919, that a certain United States battleship "is not a battleship at all. She is the worst crime in naval construction ever perpetrated by the white race."

In view of the scandalous charges spread broadcast at that time, the Naval Affairs Committee of the Senate undertook an investigation and heard Admiral Sims and a number of other officers. Under the searching, competent and impartial investigation of Senators Eugene Hale and Benjamin R. Tillman, the mountain of charges brought forth a mouse of fact, and in the end the committee did not even dignify it by a report.

Going further back, we will recall that after the glorious victory in the Spanish-American War there followed a squabble about honors which tended to tarnish the fame of those who were engaged in it. In view of what happened after that war (and similar instances could be quoted in our naval history) it may have been too much to expect that naval differences in the World War would be minimized and forgotten in the glory of victory and the proud place which naval efficiency won for our country. Mistakes are inevitable when mere men undertake such gigantic enterprises as those of the United States Navy during the World War, but I know by daily consecration to a great task, and all the world knows by unprecedented achievement, that whatever mistakes were made they were small in comparison with the splendid performance. Only one thing really counts in this great world and that is the result.

As to the American Navy's part in the Great War there are no two opinions at home or abroad. With an unprecedented task, with methods of warfare new and changing to meet the new murderous conditions which no nation dreamed would be brought into play, our Navy exhibited a resourcefulness and an efficiency at which the world marveled. That record, achieved in days of stress, stands untouched to-day and for all time by criticisms from within or without.

For me it has been a privilege to have served as Secretary of the Navy in the years of its largest expansion and its widest service to our Republic and to the world. I came into the office with appreciation of its high traditions and shall lay down the trust happy to have been the loyal shipmate of 6,000,000 men who, in the testing times, proved that the Republic's confidence in naval resource and naval efficiency was well placed. I am happy that, though there may have existed in the days of struggle opposing views as to the best way to employ the naval strength to win victory, no differences weighed against the immediate, constant and whole-hearted and intelligent consecration to the varied duties the Commander in Chief of the Army and Navy assigned to the Navy. Here at home, where preparation and supplies and ships were hurried to the most needed service with the utmost speed by earnest Regular and reserve officers and men and civilians, equally devoted, what was accomplished was truly wonderful. Enough can never be said of the celerity and efficiency of the naval organizations which made possible the safe transportation of 2,000,000 troops to Europe, the carrying of supplies, the unceasing warfare on the submarine murderers, the laying of the barrage across the North Sea, which was the crowning and outstanding naval offensive contributed to end German sea power, and the scores of other duties which were undertaken by the Navy. Nothing I can say would too generously praise the brave officers and men sent overseas, charged with important missions ashore, and with a duty afloat that called for a courage and a daring and a resourcefulness as great as John Paul Jones and his associates displayed when

fighting across the ocean. This history of the scores of the encounters with the submarines, of the protection of troop ships, of the convoy of cargoes, of the laying the barrage and sweeping the mines and other achievements of audacious and bold men of the sea of our Navy, will make a story that will thrill the pulse of unborn generations.

My position enabled me to test the qualities of the naval personnel; to know the difficulties under which they wrought, their disregard of hardships, their consecration to duty, and their splendid performance by such teamwork as has not been surpassed in history. From first to last there was on the part of all the will to win in such a degree that there was never the faintest doubt of the result. And this was true of the men in subordinate and high stations alike. Hardly without exception—or with exceptions too few to remember—when the American Government through the President and the Congress laid down the policy the answer of the men in the Navy, no matter what any thought of this or that disposition of force, was the cheerful and victorious and hearty, "Aye, aye, sir."

And so the war came to an end with honor to the Navy. It had not only done well its purely naval fighting and scouting and conveying and patrolling and many other jobs never before assigned to any Navy, but it had won the gratitude of the 2,000,000 American soldiers transported abroad and of all who loved them for its vigilance and success in landing them safely in France. That achievement, Mr. Chairman, was due to no chance or accident or favoring winds. No such troop movement over such an expanse of water had ever before been attempted. When, in spite of submarine attacks, the first transports carrying troops reached Europe without the loss of a ship or a man, there was a prayer of relief and thanksgiving all over America and the allied world, for all knew that the fate of nations hung upon the ability to safely land American fighters in France. In comparison with that essential to winning the war nothing else counted. And who in advance would have dared even to hope in those fateful days from June, 1917, when the first transports sailed, until November 11, 1918, when the signing of the armistice made the sea safe from undersea assassins, that of the vast army transported and guarded by the United States Navy on hundreds of Europe-bound transports not one life would be lost?

It was indeed a miracle attesting to the wise planning, the close cooperation of Army and Navy, and to the marvelous efficiency of naval navigation and naval resourcefulness. The planning and safe execution of that epoch-making transportation was due to the wise action of the high officials in the War and Navy Departments who, from the beginning to the end of the war, worked together with perfect understanding, and to all the capable officers and men entrusted with this supreme job. It was well done and done expeditiously. That fact alone, sir, is answer to most of the criticisms heard by your committee.

In the face of a great job greatly done, it is a matter of national regret that any naval officer should for any reason or any motive seek either to minimize it or to cast aspersions upon the splendid work by brother officers in or out of the department. I confess to surprise and regret when Admiral Sims made public the letter which was the occasion of your hearing. During the conduct of the war, in several im-

portant particulars, I felt he did not wholly measure up to expectations in certain particular ways, of which six may be mentioned:

1. He lacked the vision to see that a great and new project to bar the submarines from their hunting grounds should be promptly adopted and carried out, no matter what the cost or how radical the departure from what ultra-prudent men regarded as impracticable.

2. He seemed to accept the views of the British Admiralty as superior to anything that could come from America, and urged those views even when the Navy Department proposed plans that proved more effective.

3. In public speeches and other ways he gave a maximum of credit to British efforts and minimized what his country was doing.

4. He coveted British decorations and seemed to place a higher value on honors given abroad than by honors that could be conferred by the American Government.

5. He aspired to become a member of the British Admiralty, and wrote complainingly when the American Government declined to permit him to accept such tender by the King of England.

6. He placed protection of merchant shipping, with concentration of destroyers at Queenstown, as the main operation of our forces abroad, failing to appreciate that the protection of transports carrying troops to France was the paramount—and I wish to emphasize that was the paramount—naval duty until I felt impelled to cable him peremptorily that such was our main mission.

As to the North Sea barrage, the department felt it necessary, so much importance did it attach to the enterprise, to send Admiral Mayo over to convince our British naval associates of its feasibility, after Admiral Sims had accepted the view of the British Admiralty that it was impracticable, and had tried to induce the Bureau of Ordnance and the department not to press it. After it was finally acquiesced in by the British Admiralty, Admiral Sims did carry out the department's orders with reference to it though his previous attitude had delayed several months this enterprise. Though without precedent, this giant project, conceived by officers of the American Navy in Washington, was carried out with brilliant success.

I never gave any public or private criticism of Admiral Sims for his failure to show early vision in this connection, or of his other mistakes or wrong views. Admiral Mayo succeeded with the British Admiralty where Admiral Sims had lacked faith, and the British Admiralty in the fall of 1917 finally accepted the plan we proposed in April, based upon the Bureau of Ordnance's recommendation.

As to his desire for British honors, I informed Admiral Sims plainly of the views of the American Government, declined to permit his acceptance of honorary membership in the British Admiralty. While disapproving it officially and privately at the time, I regarded it as rather a love of glitter and foreign recognition and honor than anything else.

As to his one idea, and controlling idea, of carrying on the war by putting virtually all our destroyers at Queenstown, giving priority to protection to merchant ships over that of troop transports, the department compelled the carrying out of its policy by this peremptory order, which I penned with my own hand [reading]:

The paramount duty of the destroyers in European waters is principally the proper protection of transports with American troops. Be certain to detail an adequate

convoy of destroyers, and in making the detail bear in mind that every thing is secondary to having a sufficient number to insure protection to American troops.

The above cablegram was sent by the Secretary of the Navy to Admiral Sims on July 28, 1917.

Though the department had disapproved some of his recommendations and denied some of his desires, I mistakenly supposed until the letter of January 7 that he had accepted and acquiesced, with more or less grace, in the department's disposition of ships and its other official actions as a loyal officer accepts the decision of his superior, even though he might personally hold other views. I did not know when Admiral Sims returned from France or until the early part of 1920 that he had made to Senator Glass, Congressman Byrnes, and Congressman Whaley, a statement detailed as follows by Congressman Byrnes. Mr. Byrnes said [reading]:

In October, 1918, with two of my colleagues, Representative Glass of Virginia—

Now Senator Glass—

and Representative Whaley, of South Carolina, I went to France, and among other places visited Tours, the headquarters of the Services of Supply of our Army, and was thrilled with pride at the marvels worked by this branch of the service. On October 30, with my colleagues, I saw Admiral Sims, who was then in Paris. I shall never forget that interview. The armistice had been requested by the enemy. Sims told us of the magnificent progress made by the British on the English front, and as we listened he proceeded to tell us that the armistice would have been granted, because Pershing had been unable to break through the German lines owing to the absolute breakdown of transportation behind the American lines. With pathos in his voice he told us how unfortunate it was that this breakdown occurred at so critical a moment. In amazement we listened, and in the monologue he delivered he proceeded to tell us that while Americans believed their Navy was working wonders, that as a matter of fact we had but 3 per cent of the antisubmarine craft in English waters; that Great Britain had brought over two-thirds of our troops, and had escorted one-half of them.

Not satisfied with telling us how small a part we played upon the sea in time of war, he proceeded to tell us that in time of peace we should seek to play no part at all. He expressed the hope that we would not be led astray by the agitation for a merchant marine. He declared that England, because of her geographical location, must necessarily control the seas, and that we could rely upon her at all times providing a merchant marine to transport our goods to foreign markets.

When I took issue with him, he stated that even if we entertained the view that it would be desirable for the United States to possess a merchant marine, that it was impossible because we could not compete with Great Britain; that it would be necessary to pay subsidies, for which our people would never stand; and that it was the part of wisdom—

Listen at this—

for us to develop the great West and leave the sea to Great Britain. With that Government, he said, we never would have any trouble, and Great Britain could be depended upon—

Think of it—

at all times to care for our business upon the seas.

Mr. Chairman and gentlemen, if I had known that Admiral Sims had made that statement reflecting upon the Army and the Navy of the United States, I could never have given the recommendation for his promotion which I generously wrote to the Naval Affairs Committees of the House and Senate.

He had not then attacked the Irish people. I thought then he had only defended American sailors, a proper thing to do, when attacked unjustly by what he termed a lawless element in Cork. If I had known,

sirs—and, gentlemen, I wish to emphasize this—if I had known that he proposed under the permission granted him to tell the story of what the Navy had done overseas to denounce the Irish people, as he did in his articles in *World's Work*, the permission would not have been granted.

And so, gentlemen, though not in any way approving any of the mistakes and erroneous views of Admiral Sims during the war, the department gave him every consideration. I felt there was glory enough for all. I forgot his indiscreet speeches and actions, forgave his tendency to believe in the infallibility of the British Admiralty, and when, in January, 1919, he cabled desiring to return to America and requesting to be made president of the War College—and, by the way, he is the only admiral in the war that ever asked any particular and special assignment—I promptly and gladly granted his request, and upon his return to America recommended to Congress that he be made an admiral for life, and was more than generous in appreciation of his service in the war, as, indeed, I was and am of all the officers and men who served in that great struggle. It is far from any purpose of mine, gentlemen, to detract from the work of Admiral Sims in London or to say anything that reflects upon his sincere efforts to win victory. He was undoubtedly animated by the same whole-hearted resolve to defeat the German forces as were Admiral Benson, Admiral Mayo, Admiral Rodman, Admiral Badger, Admiral Fletcher, Admiral Wilson, Admiral Niblack, Admiral Gleaves, Admiral Strauss, Admiral McKean, Capt. Pratt, and all the other splendid officers who held responsible positions in the World War.

Admiral Sims's letter of January 7 was not made public by the department, or even the fact that it existed. It was referred to the General Board of the Navy, a distinguished body of officers who need no introduction to the members of the Senate Committee on Naval Affairs (Admiral Sims himself is a member of this board), where it would have received all the consideration to which it was entitled, and such consideration by professional experts (including Admiral Sims) might have resulted in good. As a result of the publicity given his letter by Admiral Sims, and the consequent investigation by this committee, wide publicity has been given to a number of charges by Admiral Sims reflecting upon the conduct and results achieved by the U. S. Navy in the World War. We know that hindsight is better than foresight, and after any great undertaking, however successful, it is easy to point out things done that ought not to have been done, and things left undone that ought to have been done. The most serious charges made by Admiral Sims are without foundation, and others are not justified. As to some of the actions he assumed to criticize he was necessarily ignorant of many things known to his superiors, whose field was wider and knowledge more complete. But upon his assumption of what he calls errors and a small foundation of facts, Admiral Sims has erected a towering structure of exaggeration and misrepresentation.

You gentlemen have heard certain witnesses who have to some extent supported Admiral Sims, but who mainly devoted their energies to rehashing ancient animosities, being largely people with a grievance. Practically no witness introduced by Admiral Sims had personal knowledge of the principal matters dealt with by Admiral Sims himself. You have heard a number of the most competent

officers of the Navy, with first-hand knowledge of what happened during the war, owing to the responsible positions which they occupied, whose testimony I think would have been accepted by any open-minded man as absolute refutation of practically all of Admiral Sims's charges.

I can add but little to what has been told you already without covering again the ground which has been covered by the most capable officers of the Navy. I feel, however, that the charges against the Navy are so scandalously unwarranted by actual facts and conditions that it is my duty to give you gentlemen the benefit of the fullest possible statement, covering, of course, only those activities which constitute the outstanding achievements of the American Navy, which from top to bottom did its full duty during the war and measured up to the highest standards that can be conceived.

Mr. Chairman, there are those who believe that mud once thrown by muckrakers leaves a stain difficult to erase, and these may fear that the piling of proof on proof by great naval officers, exposing the fallacy of every criticism retailed before your committee, will not wholly remove the first impression made by these unjust charges. Those who take that view little understand the spirit of the American people. It is not too much to say that when he read his sensational attack people were amazed at the wantonness of the charges and shocked at the idea that a naval officer could be guilty of such a breach of confidence as his letter revealed. Then as they heard the earliest refutations they became righteously indignant. Now that every scintilla of unjust criticism has been completely and fully and overwhelmingly refuted by the ablest and most trusted officers in the American Navy, the indignation of the people of America has risen to a feeling of national outrage and condemnation, and nothing short of it.

The Navy and its service in the World War stand without a trace of the mud with which a few have sought to bespatter it. The evidence has had only one effect, and that has been a feeling of deep regret at the necessity of withdrawing approval from Admiral Sims and replacing it with deep and lasting disapproval. The only man injured in public esteem by his charges reflecting upon his brother officers and attempt to hold their self-sacrificing and successful service up to condemnation is Admiral Sims himself.

RESPONSIBLE OFFICERS, BY THE TESTIMONY OF 10 TO 1, REFUTE CRITICISM BY SIMS.

So far as the acts of the Secretary of the Navy in the conduct of the war are concerned, I would be perfectly satisfied to leave the case exactly as it stands on the evidence and testimony laid before you, without thinking it necessary to add one word thereto, so clearly do I feel it has been proved that the criticisms you have been inquiring into, so far as they may be said to have any importance or serious weight, have been directed solely against the military activities of the department, and particularly against the broad, fundamental policies of strategy and naval tactics. The broad naval policy of the department must depend upon the policy of the Government, not the Navy Department. Strategy and tactics, particularly in time of war, must be determined by military officers con-

nected with the department whose special training and long experience have fitted them for a task which no civilian can properly undertake.

As to whether these criticisms were justly founded or not, you have had before you the 11 admirals in whose hands rested the technical military decisions and operations and those who held the most responsible positions in our Navy during the World War.

There were 12 of these high ranking officers charged with great responsibility. You have heard 11. The twelfth, Admiral Gleaves, who was in charge of the transportation of the troopships that carried the soldiers to France, is commander in chief of the Asiatic Fleet, and, while regretting you will lose his testimony, I did not feel justified in ordering him from his distant station to testify.

One of these officers is the author of the criticisms. The other 10 have so ably and flatly denied their correctness or justice in their own statements as to make it seem really unnecessary for me to add much thereto. However, inasmuch as the judgment and executive ability of these officers has been brought under public criticism by one of their own number, and as under the old traditions of the Navy these officers look to the civilian Secretary to defend them before the public, respecting, as they do, not only the regulations but the spirit of the Naval Service and discipline which has always held it improper and unwise for military officers to enter into public wrangles with each other on purely military matters, I feel that in justice to them I should make clear certain matters which, perhaps, while I trust they have been clearly understood by you gentlemen, may not have been fully grasped through the fragmentary reports of these hearings in the public press.

I have always conceived it to be the duty of the Secretary of the Navy in time of war, and so far as I know such has been the conception of all my predecessors—to select the most able and experienced officers and to rely upon their judgment and decisions in regard to the purely technical military matters of the Navy Department. I think I may say with some pride that in no previous war has the military organization of the Navy been given such a free hand or afforded such organization for the purpose of conducting military operations along the best military traditions as has been the case in this conflict.

In the establishment of the Office of Naval Operations, and in placing the Chief of Operations in a position of responsibility for the direction and operation of the fighting forces of the Navy, this administration demonstrated long before the war the necessity of efficient organization, which proved its value in the greatest war in history; and no test of organization and efficiency is comparable to the test in the stress of war.

Compare, if you will, the workings of the military organization of the Navy Department in this war with the so-called naval strategy board of the Spanish-American conflict and you will see for yourselves the improvement which has been made from the military officer's point of view; and at the same time, I feel that the important and necessary civilian supervision of the entire operations of the Navy Department, so many of them essentially civilian in their character and involving questions on which no naval officer would claim to have the expert civilian knowledge necessary to solve properly, has not

been sacrificed. The Navy, even in time of peace, is an enormous industrial establishment. It is one of the country's greatest ship-builders, for instance; its workshops produce almost everything which goes into the making of a ship. Its yards hold many thousands of civilian workmen. Its purchases must be conducted along the lines of best civilian business experience, and I find, in all these criticisms, no question raised or even intimated as to the efficiency with which this tremendous side of the Navy has operated.

In regard to that part which has been under criticism of one of the 11 officers referred to, considering the inevitable differences among all military authorities in matters relating to purely military affairs, I think it is surprising and gratifying to see that the verdict of these officers is 10 to 1 as to the correctness of what we did. Had there been, during the war, a serious difference of opinion as to what should be done among those charged with the duty of determining our military actions, and had such differences been supported on each side by a nearly equal number of experienced officers, it would, of course, have been my duty to have decided between them. I have been fortunate, gentlemen, that no such condition arose, for that is a heavy responsibility for any civilian, untrained in the technical art of warfare, to have undertaken.

What I feel is needed from me at this time is not a defense, but a clear and brief résumé of what has already been testified to, that the public may clearly understand that the defense of the Navy's action has already been ably and fully made by the highest officers of the Navy, together with some statement of mine of what the Navy actually did during the war. You have heard long statements of what it did not do. The country's pride will be heightened by the facts of some of the great things it did do.

The Navy has been, and I think justly, praised not only by our own people and by all of the military authorities of our Allies, but even, though somewhat grudgingly perhaps, by our foes. It would be indeed remarkable if the opinion of one officer, who has obviously not been in a position to know all of the underlying reasons for our actions at any time, should confuse the future historian, or cast any doubts upon the deservingness of the eulogies which the Navy has received.

BROADCASTED HIS CHARGES AGAINST THE NAVY.

The portion of Admiral Sims's letter of January 7 which, perhaps more than any other of his statements, shocked the country, was the paragraph embracing what he called an "explicit admonition" not to "let the British pull the wool over your eyes," etc. The people could not understand how any patriotic American who put the good of his service first, could possibly spread broadcast a statement which reflected upon his own Government and might tend to disturb the cordial relations with a friendly power. They were all the more surprised that a naval officer of high rank, sent on a secret and confidential mission, should violate the confidence reposed in him and publish a statement which he evidently believed would damage a fellow officer and cast a doubt upon the Navy's whole-hearted devotion to the allied cause. I must confess that it shocked me, for in all my years of association with officers of the Navy this was the first time I have ever known one to make public any confidential conversation with a su-

perior officer. Gentlemen, I did not believe it was possible for an officer of our Navy to do such a thing.

How was that letter made public? Admiral Sims stated that he "supposed by the Navy Department." He was quoted by the New York Times as saying that "no person had seen the letter except the members of his staff and his wife." Later, on March 22, in his testimony before your committee, Sims admitted upon cross-examination that he had shown it to H. P. Davison, of the firm of J. Pierpont Morgan & Co., in Mr. Davison's library, Admiral Sims having gone to New York to attend a dinner given by Mrs. Whitelaw Reid, owner of the New York Tribune and widow of the late Whitelaw Reid, former ambassador to Great Britain.

The general public may not be greatly concerned with the question of how the letter was made public. It is quite different with naval officers, whose first thought is of the high traditions of the service. Not one but a score of them have asked me that question, and it may be well to give the facts so that there can not hereafter be any doubt or misunderstanding. The letter is dated Newport, January 7. It was received in Washington, January 9. It was brought to me by my confidential clerk. I read the first page and had read down to the so-called "orders" and "explicit admonition" when a gentleman with whom I had an engagement was announced. The letter, so-called "Certain Lessons of the Great War," was returned to its envelope, placed in the middle drawer of my desk. I locked the drawer, put the key in my pocket, and nobody saw that letter until after the Washington Post on the morning of January 14, under sensational headlines, printed the following [reading]:

Secretary Daniels has received another letter from Admiral William S. Sims, which will prove of great interest to the service and the country, if the Secretary does not succeed in suppressing it. It is a frank and fearless exposé of the hopeless story of maladministration, mistakes and blunders into which the American Navy has fallen as a result of Mr. Daniels's policies, and it tells the Secretary things that became evident to the admiral during the war and are even more evident now.

It is, in effect, an attempt by the officer who was commander in chief of the American naval forces—

And just there I may say that Admiral Sims was never commander in chief of the naval forces—

in European waters during the war and is perhaps foremost among ranking officers in the service, to rescue the morale of the United States Navy from the Daniels policy by appealing directly to the men responsible for it all.

Admiral Sims is now president of the Naval War College at Newport, R. I., and the letter was sent to Mr. Daniels from there. It is becoming apparent that the unwillingness of Mr. Daniels to accept the criticisms of Admiral Sims on the matter of naval awards without reply—

And I may say parenthetically that that is not true, because I gave a very full and comprehensive reply—

and the efforts of the Secretary to pass unnoticed the charges that he has brought condemnation and ridicule of the service upon himself by his actions, are not going to heal the breach between the Secretary and the admiral.

* * * * *

Admiral Sims will be the first witness before the Senate Naval Affairs subcommittee Friday, and his presence here will probably accentuate the differences between himself and the Secretary.

If this officer, who is generally regarded here and abroad as one of the most competent naval authorities in the world, finds it necessary to expose Mr. Daniels' management of naval affairs and frankly and fearlessly undertakes the task it is not probable that Senators will show lack of interest.

In answer to an inquiry by representatives of the press that morning I stated that a letter had been received from Admiral Sims, but declined to discuss it or make it public. It was not made public until Saturday, January 17, when Admiral Sims read it to your subcommittee. The way in which this letter, which had nothing whatever to do with medal awards, was introduced in the committee's hearing on that subject is shown by the following extracts from the record:

The CHAIRMAN. Admiral Sims, I think in connection with this matter if you have had any further correspondence with the Secretary of the Navy about the question of awards and their effect on the morale of the service, it would be well for you to give that correspondence to us at the present time.

Admiral Sims. It does not bear particularly upon the question of the awards, but it does bear upon the question of the morale of the service.

The CHAIRMAN. Then I think it is decidedly germane to this issue.

Admiral Sims. As I said before, the action of the board in the awards is only the last straw in this whole business.

(Record of medal awards, p. 304.)

Senator Pittman was allowed to proceed for some time, when Chairman Hale again brought up the matter of the letter:

The CHAIRMAN. Now, Senator Pittman, with your permission, we will go ahead with the question I put to the admiral, if the admiral cares to proceed.

Admiral Sims. As I said in the little preliminary statement that I made yesterday, this business of the award of medals fell on the service in a very critical condition of morale, which goes back a long way and has quite a good deal to do with the way in which the war was managed from a naval point of view, and it is this question of morale as well as the question of awards that is being investigated. It seems to me that it is quite proper that anything that bears on the morale should be taken into consideration.

This is a letter that I have written to the Secretary of the Navy under date of the 7th of January, 1920. As I said in my preliminary statement, it is the duty of an officer who has been in a responsible position of command during a considerable war, by the regulations of the Navy Department, to state any criticism that he may have which, in his judgment, will be useful in avoiding mistakes in future wars, and it is the mistakes we want to avoid and not camouflage in any respect. The following is this letter.

(Admiral Sims then read the letter in full as it appears in the hearings upon medal awards, pp. 309 et seq.)

Admiral Sims immediately pulled the letter out of his pocket and read it in the public hearing. If he wished to make public what up to that time he called an "explicit admonition" given along with his "orders" imparted in confidence, he could not have chosen a more ostentatious and well-planned manner of securing publicity. If, on the contrary, as he said, he had written it only for naval officers, nothing would have been easier than, when Senator Hale asked him if he had a letter bearing on naval awards, to have said that he had written a letter to the Secretary of the Navy, bearing upon a totally different subject, but as he had written it only for naval uses and to make it public would be a violation of naval regulations and naval traditions, he begged to be excused from reading it. Such a statement would have left the so-called "Lessons of the war" for the consideration of the General Board of the Navy, where lessons of the war by other officers receive the consideration their merits justify. But he had it in his pocket, evidently only awaiting the opportunity, which the hearing afforded him, to give his charges the widest possible publicity.

SIMS'S INSTRUCTIONS AND ORDERS.

Admiral Sims has told you of his being called to Washington and of the instructions he received previous to his being sent to London on a confidential mission, a mission so confidential that his instructions were not committed to writing. He said in his letter of January 7, 1920:

Brief orders were delivered to me verbally in Washington. No formal instructions or statement of the Navy Department's plan or policy were received at that time, though I received the following explicit admonition: "Don't let the British pull the wool over your eyes. It is none of our business pulling their chestnuts out of the fire. We would as soon fight the British as the Germans."

In the letter from which the above is an extract addressed to the Secretary of the Navy and made public by Admiral Sims in his former hearing before the Senate subcommittee, he called the statement above quoted an official "explicit admonition." Now Admiral Sims says regarding the same admonition from the same officer at a later date that it made so little impression upon him that he had "completely forgotten the incident," says he "did not remember it distinctly" and regarded it as "a personal idiosyncrasy of the Admiral." Why this change? If it was an official "explicit admonition," which he made public, he convicts himself of violating sections 2, 3, and 4 of article 1534 of the Regulations for the Government of the Navy which are in these words:

(2) No person belonging to the Navy or employed under the Navy Department shall publish or cause or permit to be published, directly or indirectly, or communicate by interviews, private letters, or otherwise, except as required by his official duties, any information in regard to the foreign policy of the United States, or concerning the acts or measures of any department, of the Government or of any officer acting thereunder, or any comments or criticisms thereon; or the text of any official instructions, reports, or letters upon any subject whatever, or furnish copies thereof to any person, without the express permission of the Navy Department.

(3) Officers and other persons in the naval service desiring to publish articles on professional subjects, except translations from foreign publications or articles of a purely historical nature, shall submit the manuscript of such articles to the department (Office of Naval Intelligence) for scrutiny before publication. Such articles must be couched in proper and temperate language and free from personal attacks on, or impugment of motives or conduct of, persons in the Government service, and must conform strictly to the requirements of paragraph 1 of this article. The publication of such articles, if authorized, shall be over the signature of the author.

(4) Nothing in this article shall be construed as prohibiting officers from forwarding to the department, through official channels, well-considered comment and suggestions with a view to promoting the efficiency of the service and the public interests; on the contrary, such suggestions are invited, but they should be in regard to things or methods and not a criticism of persons, and should in all cases be accompanied by a well-digested plan for improvement. Such suggestions, if approved by the department, will be entered on the officer's record and he will be duly notified to that effect.

In his testimony before your committee Admiral Sims makes another statement wholly inconsistent with the fact that he considered the alleged statement only an "idiosyncrasy" of Admiral Benson, for he makes, by more than inference, a charge against him as unworthy as it is unfounded. He said to your committee:

Now, my reason for putting it in the letter may not be so clear to a civilian as it is to a military man, but the spiritual foundation of every war is the will to victory, and if any man, no matter how honest, has an invincible prejudice against the people that we are fighting alongside of, it is very probable that it has an unconscious influence upon him; and that is the reason that in submitting this letter for the consideration of the Navy Department, I put that in there, as one of the most important things in the

letter, that if ever we go into a war again we want to make sure that the spiritual foundation of our organization, the will to victory, is sound.

I do not need to tell your committee, or to tell the American people or our Allies, that the "will to win" completely dominated Admiral Benson, that he was "whole-heartedly" working day and night to achieve the great success which his efforts more than those of any other naval officer brought about, and that his 100 per cent Americanism and great achievements justify the distinguished honors conferred upon him at home and abroad. Mr. Chairman, there is a peculiar malady which affects a certain type of Americans who go abroad and become in many respects un-American. That malady causes them to regard others, who do not lose their thorough-going Americanism and undivided allegiance, as having "idiosyncrasies." Sims genuflected so before the British Admiralty ideas and accepted British views so fully and coveted British honors so earnestly that he came to regard as anti-British such a rugged American as Admiral Benson who is "all American," neither "pro" nor "anti" with reference to any other country.

In his testimony before your committee some weeks later, referring to the so-called "explicit admonition" Admiral Sims seeks to escape from the serious consequences, which violating confidence and naval custom and regulation would invite, if the language which he attributed to Admiral Benson, was an "explicit admonition." He said in his testimony:

About six months later in my office in Paris he made a similar statement; at least, to the effect that I was not to allow the British to pull the wool over my eyes or to pull their chestnuts out of the fire, or something to that effect. I will admit that I had completely forgotten the incident. It was recalled to my mind by a member of my staff who was present, and who heard it. I think that the reason that I did not remember that distinctly was because I regarded this as a personal idiosyncrasy of the Admiral.

I remember very clearly the instructions given Admiral Sims and the conversation that took place at the interview in the office of the Secretary of the Navy. The United States was not then at war, though I believed that Congress would declare that a state of war existed between the United States and the Imperial German Government within a few days or a few weeks. After the usual greetings, when Admiral Sims came into the office, I told him of the letter from Ambassador Page suggesting that an American Admiral be sent to London; or I showed him a copy of the letter. I do not remember which. That is immaterial. I am not sure whether I gave him a copy of the letter or only told him of its contents. But he was made acquainted with the contents of the letter and the fact that Ambassador Page had conveyed the offer of the British Admiralty to furnish the Admiral selected to go to London with "a sort of special staff" who would "give him the results of the whole naval work since the war began."

I told Admiral Sims that the President had decided to send him on the confidential mission outlined in Ambassador Page's cablegram, and we wished him to use the cable freely and keep the department fully posted on conditions as he found them in London. In that connection we talked of the destruction of merchant shipping, and I told him that the President could not understand why the British did not convoy their ships through the danger zone, and I added that I had informed the President that there was a difference of opinion ✓

among our naval officers about the convoy system, and in this particular accepting the British convoy which had been maintained for three years, but that the President was decidedly of the opinion that ships should be convoyed.

Before he left I impressed upon Admiral Sims the fact that we were not at war and that until Congress acted, the policy of neutrality must govern all his public acts and utterances, incidentally recalling his Guildhall speech, in which he had said:

If the time ever comes when the British Empire is seriously menaced by an external enemy, it is my opinion that you may count upon every man, every dollar, every drop of blood of your kindred across the sea.

I added that, of course, Secretary Meyer and President Taft were right in their reprimand for the utterance, and that he had been selected for this mission not because of that speech but in spite of it, in the confidence that he could obtain the information this Government would desire in case Congress declared war. I do not recall that I specifically told him that his mission involved the most sacred confidence; but that was clearly implied if not expressly stated. Because of its confidential character it was agreed that he would not wear his uniform on his trip and would go over on a commercial line, and would travel in civilian clothes, making his departure quietly and without anybody outside the department knowing of his sailing or his mission.

So confidential was the mission regarded that he was informed he would not at that time be detached from his duties as president of the War College, but this confidential mission would be in addition to his other duties. My recollection is that, in order to insure secrecy, at my suggestions, the Chief of the Bureau of Navigation himself wrote out his orders. They were as follows:

MARCH 28, 1917.

To: Rear Admiral William S. Sims, United States Navy, Commandant Naval Station, Newport, R. I.

Subject: Special duty.

1. Proceed to a port of Great Britain, leaving the United States on or about March 31, 1917, and on arrival carry out the confidential instructions which have been given you.

2. Inclosed are copies of orders to you and to Lieut. Commander John V. Babcock, signed by the Chief of the Bureau of Navigation, dated March 28, 1917, which will be disregarded.

3. The United States naval attaché, London, England, is hereby authorized to advance to you such funds as may be required.

4. At such time as may be convenient you will confer with the United States ambassador to Great Britain.

5. You will acknowledge the receipt of this order by dispatch, addressing same to "Rear Admiral L. C. Palmer, Bureau of Navigation, Navy Department," giving the name of the vessel on which you will take passage, and sign the dispatch "Special."

6. This is in addition to your present duties.

L. C. PALMER, *Acting*.

My confidential instructions given him personally and the above order constituted the only orders he had when he left the United States on his special mission for London. The following are the later orders involving his position and status issued to Admiral Sims during the war:

APRIL 28, 1917.

To: Rear Admiral William S. Sims, United States Navy, care of American embassy, London, England.

Subject: Detached commandant naval station, Newport; to command certain destroyers, etc.

1. You are hereby detached from duty as commandant of the naval station, Newport, R. I., and from such other duty as may have been assigned you at Newport; will assume command of all American destroyers operating from British bases, including tenders and auxiliaries thereto which may be sent later.

2. You will continue on your present duties in England, this being in addition to the duty referred to above.

JOSEPHUS DANIELS.

To: Naval attaché, London.

Please communicate the following letter from the President of the United States to Admiral Sims, dated White House, Washington, May 26, 1917:

Under an act of Congress which was approved May 22, 1917, you have been designated commander of the United States destroyers operating from British bases from May 26, 1917. It is my pleasure to inform you that under this designation you will assume the rank and hoist the flag of vice admiral in the Navy on receipt of advice of this designation.

Respectfully,

WOODROW WILSON.
DANIELS, *Secretary Navy.*

JUNE 14, 1917.

To: Vice Admiral William S. Sims, United States Navy, commanding United States naval forces operating in European waters, via Chief of Naval Operations.

Subject: Change in title.

1. Your title is hereby changed to "Commander, United States naval forces operating in European waters."

JOSEPHUS DANIELS.

I may say here that in the meantime Admiral Sims had requested that in addition to his other duties, we should withdraw our naval attaché to London, and make him also naval attaché; and so, in response to his request, the following order of November 20 was made [reading]:

NOVEMBER 20, 1917.

To: Vice Admiral William S. Sims, United States Navy, Commander, United States naval forces operating in European waters.

Subject: Additional duty as naval attaché, London, England.

1. You will assume duty as naval attaché, London, England.

2. This is in addition to your present duty.

(Confirming dispatch of Nov. 17, 1917.)

JOSEPHUS DANIELS.

These several orders and instructions constituted him naval attaché as well as "Commander United States naval forces operating in European waters." Inasmuch as he actually commanded no ships in European waters the title given him is wholly misleading. His real function was that he was in substance an assistant abroad to the Chief of Naval Operations and was also naval attaché in London. As all our ships in British waters were operated by direction of British officers, he was subdirector of operations under Benson rather than commander of forces afloat, because he never commanded ships afloat except a few days when he relieved Bayly at Queenstown and flew his flag.

ADMIRAL BENSON AND THE WORK OF OPERATIONS.

The country has taken the measure of Admiral Benson. The unjust aspersions cast upon his administration of his great office by Admiral Sims has no foundation in fact. The truth is that in his hearings before the House Naval Affairs Committee in 1916, asked

if defects in turrets of which he complained could occur now, he replied in the negative, and added:

And we will never have them again because of the presence of Admiral Benson in his present position. If I make a criticism now it goes into his hands, and he can tell the Secretary whether it is well founded, and if it be well founded, it will be rectified if practicable.

That was his opinion of Admiral Benson and his position in 1916. He knows, and all the Navy knows, and all the world knows now, that every operation of the ships of the Navy during the whole war and before was in the hands of the Chief of Operations, and that this great responsibility was exercised with singleness of purpose—throwing the maximum power of the Navy into the war against Germany. I was in daily touch with Admiral Benson and the other officers in Operations; I know their zeal and enthusiasm; I know their faithful and intelligent work.

And I wish to say here in parentheses that Capt. Volney Chase was Assistant Chief of Operations in the early days of the war—an abler and better officer never lived—who gave his time so unremittingly that he lost his life as truly as any man lost his life on the field of battle. These gentlemen were given every cooperation and a free hand by the Secretary of the Navy. Their disposition of all the ships was made to make the American Navy do its great part in the World War. Their work will stand the test of time, and the charges that the service from the beginning was not wholehearted is a cruel and unjust attack upon a great naval officer and all associated with him in Operations.

You gentlemen have heard the statements of Admiral Benson, Chief of Operations, Admiral McKean, Chief of Material, and Capt. Pratt, Assistant Chief of Operations. They have the confidence not only of the American but also of foreign navies. Their service in the war was not surpassed by that of Admiral Sims or any other officer overseas. Indeed upon their shoulders rested the responsibility for the assignment and operation of every ship in the Navy and its readiness for war. Admiral Mayo has told you that the fleet was never in such good condition as when war was declared in 1917. Admiral Plunkett has told you that the Navy never could shoot so well as then. Capt. Palmer has told you that there never was a ship ready to go to sea that officers and men were not ready. And the results—the success of the naval ships in every character of service in fighting submarines, in transporting troops, in convoys, in mine laying, in patrol and all other activities—attest the efficiency of Operations and the department. Against that record, applauded at home and abroad, the discharge of poison gas by men with or without a grievance, can not prevail with any just men in the country, against the patriotic men in and out of the department who served with such fidelity and efficiency.

SIMS PROPOUNDS NEW DOCTRINE.

Is it proper for a naval officer to send a cablegram for the purpose of deception? It has always been regarded as justifiable and even necessary during a war to do or say anything to mislead the foe, but until recently no naval officer has acted as if he thought it proper or excusable to say anything officially to mislead the people of his own country.

In his letter of January 7, foreseeing that his telegram of December 23, 1917, would refute charges contained in that letter, Admiral Sims seeks now to explain away his action then when he said he "loyally accepted decisions" of the department, and then commended "the energetic measures being taken to increase our antisubmarine forces." Paragraphs 76 and 77 of Admiral Sims's letter are quoted below:

76. In the course of time, in the ninth month after our entry into the war, the lack of support referred to above, particularly in respect of the lack of adequate personnel for necessary staff duties abroad, became known in Washington. This was brought to my attention by the following cable message:

DECEMBER 22, 1917.

From: The Secretary of the Navy.
To: Vice Admiral Sims, London.

1732. At House committee hearings of conduct of Navy, Representative Britten said, "I would like to have copy of complaints which have come from Admiral Sims on the other side."

This is what I said to him:

If you desire to make statement of action of department in reference to sending and supplying force under your command since war began, please send in code.

DANIELS.

DECEMBER 22, 1917.

From: The Chief of Naval Operations.
To: Vice Admiral Sims, London.

Effort being made to create impression you have been hampered by failure of the Navy Department to meet your request for various things, particularly personnel. I feel that a strong positive statement on this subject from you is highly desirable.

BENSON.

Then Admiral Sims goes on to say in his letter as follows:

77. I was thus confronted with a situation, not uncommon in warfare, that demanded a decision that no military commander should hesitate to make; that is, such a decision as would be most likely, while avoiding conflict, to advance the common cause through the loyal support of superior authority by making the best of existing conditions, no matter how unsatisfactory. As the subject was one the public discussion of which in Congress would have supplied valuable information to the enemy, not to mention increasing his morale and decreasing that of our own fighting forces, it was manifestly desirable that it should be discouraged, and particularly that no information should be supplied that would render the discussion inevitable. The following cablegram was therefore designed to accomplish this purpose:

DECEMBER 23, 1917.

From: Vice Admiral Sims.
To: The Secretary of the Navy.

2366 your 1732. I strongly deprecate any effort to create an impression that our naval forces in European waters have been avoidably hampered by the failure of the Navy Department to comply with my recommendations for various things, particularly personnel.

It is of course well known that the antisubmarine campaign and the protection of allied shipping have been and still are hampered to a considerable extent by insufficient numbers of certain types of vessels, especially destroyers, and by certain classes of personnel, and I have repeatedly made recommendations in accordance with the requirements of this situation. To these recommendations the department has always responded with the assurance that reinforcements of both vessels and personnel were being sent to the maximum extent consistent with the many other requirements of the department in these respects.

The decision as to the relative importance of the employment of our naval vessels and personnel in the theater of actual war operations in European waters and at home must necessarily rest with the department, and I consider it the first duty of those at the front loyally to accept such decisions and to make the best of conditions, which are at present admittedly unsatisfactory and must so remain until the energetic measures now being taken to increase our antisubmarine forces produce the necessary reinforcements.

Sims.

The circumstances at this time were as follows: The Naval Affairs Committee of the House of Representatives was conducting an investigation into the conduct of the war so far as the Navy was concerned. It had a right to all the facts, and the department policy was to furnish it with all the facts, fully believing that every member of the committee could be relied upon to take no action as a result of information furnished which could in any way give aid or comfort to the enemy. Admiral Sims assumes the contrary.

Admiral Sims now states, in substance, that his cablegram of December 23, 1917, was disingenuous—to use a mild expression—and intended for purposes of deception. If that was his intention, he succeeded perfectly. I desire to invite the particular attention of the committee to this cablegram. It was an accurate statement of the facts as known to the department. Admiral Sims states clearly and correctly that he had made repeated recommendations and that he had been assured they would be complied with up to the maximum extent consistent with the many other requirements of the department. He states that he considered it—

The first duty of those at the front loyally to accept such decisions and make the best of conditions which are at present admittedly unsatisfactory.

Possibly this is the portion of the cablegram to which Admiral Sims now refers when he intimates that he drafted this communication with intent to deceive. The department accepted this cablegram at its face value. In fact, a close examination of this cablegram will show that much of the letter of January 7, 1920, is an enlargement and exaggeration of this cablegram which was sent over two years ago.

Of course—and, gentlemen, I wish to emphasize this—it is generally recognized that in war it is not only justifiable but laudable to deceive the enemy. Admiral Sims now propounds a new doctrine, that he considered it justifiable and proper to deceive his superior officers. He certainly did this, and the first intimation from him that his cablegram of December 23, 1917, was not a candid and accurate statement is contained in his communication, the basis for this hearing, written more than two years later. Further comment would be superfluous.

ADMIRAL SIMS AND HIS STAFF IN LONDON.

If one part of his complaint against the department is stressed more than another by Admiral Sims, it is that in the first weeks of his service in London he was not given what he regards as an adequate staff. He returns to this again and again and really seems more insistent upon the failure to send him immediately as many officers in London as he asked for than any other alleged sin of omission or commission of the department.

As to his staff, I need but to say that in London the Navy Department had Capt. McDougall, our naval attaché, an able and experienced officer, and the assistants in his office, Capt. Tobey, of the Supplies and Accounts Service, who had been in Europe for something like a year studying conditions abroad and who rendered valuable service not only as supply officer but in other ways, and was most helpful—these in addition to Admiral Sims and his aid,

Commander Babcock, who, according to Admiral Sims, rendered the highest service of any officer in the American Navy. In his testimony Admiral Sims says:

That officer [Commander Babcock] was not only my aid, but he was, as I have stated, my chief of staff—he was my everything. * * * I do not hesitate to state that there is no officer in the United States Navy to whom the people owe so much gratitude for the success of our operations on the other side as that man.

During the first few months after our entrance there was no need to send a large staff to London, while in the fleet and in the strenuous work in America, in order to render the greatest aid possible in the shortest time every experienced officer was greatly needed and all were working day and night under whip and spur.

Admiral Sims at that time had no duty except liaison officer. All the ships we sent over—and we dispatched 34 destroyers out of our total of 50—in April and May and June, though the British war council and the British Admiralty assured us through Admiral Sims that twenty-odd would “put down and keep down” the submarines in “the critical area”—all of these destroyers, as fast as they arrived overseas, were placed at once under command of Admiral Bayly, of the British Navy, and operated by him. Sims had, therefore, no duties afloat. He had no duties ashore except as a representative of the Navy Department to obtain information, to forward it to the Navy Department with his recommendations, and then to carry out the instructions he received. In addition to the capable officers named above to render assistance, he was given authority to employ all the civilian help he desired. I sent him the following cable on June 5 in answer to his request received June 2:

JUNE 5, 1917.

To: Admiral Sims.

You are authorized to detain Tobey.

Referring to your cablegram of June 1, the department will afford you every facility which the personnel and material conditions of the Navy permit.

The material bureaus have sent or will send technical officers.

The department disapproves of all commissioned personnel.

You have authority to employ necessary clerical assistants.

The *Dixie* is coming with the full complement.

Arrangements have been made to keep the United States Navy forces supplied with provisions, spare parts for repairs, and fuel.

Such expenditures as may be necessary to maintain your forces in efficient condition and for any purpose connected therewith are authorized.

DANIELS.

I submit that the spirit of that telegram leaves nothing to be desired in the way of the department's doing everything possible and everything needed. In the very cable in which I declined to permit him to give commissions to American youths abroad, who ought to enter the Navy as enlisted men or come home and enter the Army or the Navy and secure commissions when they had learned something about the duties of an officer, e w,ted

You have authority to employ necessary clerical assistants.

Gentlemen, I wish to lay stress upon this, that from first to last I sought earnestly and zealously to prevent class 4 from becoming an open door to favored youths who wished commissions without military training, and from making it a refuge for like youths who clamored to be commissioned and to serve abroad in clerical or other shore duties. I resolutely set myself against this abuse of class 4

at home and abroad, and managed, only by firm refusal, to leave the door wide open to prevent the threatened scandal which not even my resolute vigilance could wholly prevent. Some young men, able to live abroad, desired to obtain commissions in the London office without coming home, or without going to sea. I said, "No," emphatically, but in the same message authorized the employment of all clerical help needed. Commissions in class 4, I directed, should be reserved for experts, accountants, and men of demonstrated fitness, and not handed out either in London or in the United States to young men without expert knowledge. I shall come to that more fully.

In the early days of his stay in London, the officers sent to London may not have constituted a large American staff as to numbers, but the department knew that, in addition to the American officers on duty in London, Admiral Sims had all the staff needed from the British Navy to assist him in securing the information he might need. It may be open to question whether a mistake was not made in accepting for a few weeks the assistance of the British staff, but as it had been voluntarily tendered and as we wished the closest cooperation with the British Navy which had been in the war three and a half years, I saw no impropriety in accepting their tender of a "special staff appointed to give him the results of the whole naval work since the war began."

That tender and its acceptance did not make a large American naval staff at once essential. It may be interesting, in view of the repeated criticisms of the department that it did not send to London at once, where there was no fighting—and please underscore that, "where there was no fighting," in London—a staff as big as Pershing had in France, where the war was to be won or lost—and emphasize that, "where the war was to be won or lost," and not in London—to understand why it was unnecessary, while Admiral Sims was acting in no capacity except a confidential liaison officer, to read to the committee the cablegram of Ambassador Page conveying the tender of a "special staff" when the American admiral should reach London. Under date of March 22, 1917, Ambassador Page sent the following message from London:

Mr. Balfour has shown me the informal suggestion conveyed by the Navy Department regarding closer naval relations and his reply.

By way of parentheses, I may say that we were planning to cooperate before Sims ever heard of it, as this shows. Ambassador Page then goes on to say:

The British Government will heartily fall in with any plan we propose as soon as relations can be established. It was intimated to me that a submarine base on the coast of Ireland would then be assented to.

The whole plan and the best method to bring it about have been informally discussed by me with Mr. Balfour, Mr. Bonar Law, and the prime minister, Admiral Jellicoe, and others, and they most gladly assent to any proposals that we are likely to make. I know personally and informally that they hope for the establishment of full and frank interchange of information. Knowing their spirit and their methods, I can not too strongly recommend that our Government send here immediately an admiral of our Navy who will present our plans and inquiries. The coming of such an officer of high rank would be regarded as a compliment, and—

Listen, gentlemen—

he would have all doors opened to him and a sort of special staff appointed to give him the results of the whole naval work since the war began.

In a private conversation with me to-day, Mr. Balfour expressed enthusiastic hope that such a plan would be immediately carried out. Many things of the greatest value

would be favorably made known to such an officer which would never be given in a routine way nor reduced to writing. If our Navy will send an admiral it will be advantageous for me to be informed as soon as possible.

On April 6, Ambassador Page sent a message saying the British Government would instantly place experts to cooperate with the United States in all matters.

About that time the General Board decided to recommend that an admiral should be sent to London, and suggested that Admiral Sims should go to study conditions and make report. Within a few days of the receipt of the above message from Ambassador Page, it was decided to send Rear Admiral Sims to London in accordance with the understanding with Mr. Balfour and upon the suggestion of Ambassador Page. Admiral Sims was summoned to Washington, acquainted with the above message from Ambassador Page, and he sailed before the end of March.

The department, knowing he had three American officers of ability in London, with plenty of civilian help, and authority to employ just as many more as he needed, and assured that the British would furnish "a special staff to give him the results of the whole naval work since the war began," can not be severely criticized because it did not immediately comply with his request for a big staff of experienced officers sorely needed here to do more important work than was then necessary to do in London at that time. This feeling of the department was heightened and justified particularly when, in his telegrams sent soon after his arrival, Admiral Sims asked to have sent to him at once Capt. Pratt, Assistant Chief of Operations; Commander Pye, on the staff of Admiral Mayo, commander in chief of the Atlantic Fleet; Commander Belknap, of the staff of the Chief of Operations; and like officers whose duties in Washington were many times more important than any duties in London at that time. I wish that the Bureau of Navigation could have sent him with great celerity all the officers he desired. The officers of the bureau have shown you by testimony and Capt. Laning by letter to Admiral Sims that the demand upon them for officers of long experience was greater than the bureau could supply.

Let us see how well the bureau did send him a staff, even though in the first few months it knew the British Admiralty had volunteered to assign him "a special staff to give him the results of the whole naval work since the war began." That was the very information the department wanted and I have never heard that the British Admiralty failed to furnish the staff and assistance they volunteered through Ambassador Page to supply. If they failed, the admiral never notified the department of their failure. Officers of the Bureau of Navigation have come before your committee and testified that, in addition to the three officers and all the civilians he wished to employ, and his special British staff, they sent Commander Daniels over early in the war. By July 1, 1917, we had seven officers in London; Sims had been given authority to detail excess officers from the ships sent over, and his staff grew until he had in October, 1917, 18 officers and by November, 1918, he had 179 officers and 373 men on duty in London. If he had too few Americans on his staff in the early part of 1917, he had so many in 1919 and the number had grown to such large proportions that there was a feeling that he had as much too many in 1919 as he says he had too few in the spring of 1917. He

was not only, therefore, supplied in the summer with a small staff of selected American officers, but inasmuch as in addition the British Admiralty gave him all the information at their disposal through the "special staff" tendered, I can not see where so much is made of the lack of staff except that Sims seems to think he should have been given as large a staff at first as Gen. Pershing had when the Army general first went to France.

When Pershing went over he was to command the American Army which grew to 2,000,000 men, for which he was to immediately make plans and provide all things needful for them. When Sims went over he was on a special confidential mission and neither he nor anybody else then supposed he would have any other duty abroad. As the destroyers went over in April, May, and June (34 out of our total of 50) they were all placed under British operation; Admiral Sims, therefore, in fact never during the war commanded ships or fleets, but was a liaison officer, or rather his position was that of assistant to the Chief of Operations assigned to duties overseas, just as Capt. Pratt was assistant to the Chief of Operations assigned to duty in Washington. This does not mean that his duties were not important (for Capt. Pratt here and Admiral Sims abroad had duties of great importance), or that he was not diligent in discharge of the duties he performed under the direction of the Secretary of the Navy or the Chief of Operations. His designation as force commander gave him no such duties ashore as a commander in chief, for it was always the policy of the department that when the fleet went abroad (and it was expected that conditions would arise by which the fleet should act as a unit), it would be commanded by Admiral Mayo, the commander in chief, and not by Admiral Sims.

This statement is, I submit, a complete and perfect answer to the criticisms of the department with reference to staff assignments.

Talking about adequate staff, gentlemen, that complaint of Admiral Sims amounts to little, as has been shown, but recently I have been looking over Admiral Sir Reginald Bacon's book, *Dover Patrol, 1915-1917*, and quote this extract found on page 507:

Another point that requires considerable attention in peace time is to adjust peace ideas to war conditions. Witness the refusal to appoint Capt. Bowring and then Capt. Evans as chief of my staff because of some musty precedent; the fight I had to make to get the captain in charge of destroyers accommodated in his own office ready at night for instant call.

It seems that admirals of other nations across the sea also had trouble about their staffs, and that it was not only the Navy Department at Washington but also the British Admiralty at London that did not turn rubber stamps and do everything that admirals requested. Sims said in his hearing before your committee that members of his staff "are convolutions of my brain," and he clamored and clamored for more "convolutions" until he had over 200 officers in London, where there was no fighting.

ADMIRAL SIMS COMPLAINS BECAUSE NOT ALLOWED TO SELECT FLAG OFFICERS.

Admiral Sims complains vigorously and repeatedly and with show of feeling because he was not allowed to select the flag officers in European waters. He said in a telegram on September 30 that some who had been sent by the department "are not in sympathy with my

methods." I do not know about "my methods" but they were in sympathy with the department's methods and carried out the department's policies and believed more in the American policies than the policies of any other country, something which Sims did not always do. It was the policy of the Navy Department which was to be carried out, not "my" (Sims's) "methods" or policies, and he had no right to expect to dictate such assignments.

It is quite true that the department did not delegate Admiral Sims, in his London headquarters, the right to name flag officers for the more important tasks abroad. His "methods" would not have placed and kept in important positions all the men selected by the department who performed duties ashore and afloat which gave distinction to the Navy. I assume responsibility, after conference with the Chief of Operations, for the selection of the admirals charged with important duties abroad as well as at home. They were loyal to the American Navy, Rodman in command of the North Sea Squadron, operating cordially under Admiral Beatty of the British Navy; Wilson in command of destroyers and other craft on the French coast and safeguarding hundreds of thousands of American troops to France; Admiral Niblack in charge of American operations in the Mediterranean; Admiral Strauss who had charge of the great work of laying the mine barrage across the North Sea; Admiral Dunn, who was in charge of the naval base at the Azores, established in opposition to the advice of Admiral Sims; and the other admirals whose excellent work is deserving of all praise. They were selected by the department; and the result of what was done more than justifies the wisdom of the department.

Admiral Sims makes the mistake of complaining that he was not intrusted with powers never contemplated being given to him when he criticizes the department for not giving him the powers he coveted of naming all flag officers abroad. The truth is that, though they reported through him and were under him in the same sense that he was under Mayo, his idea that the same rule should have prevailed as if he were the commander in chief of the fleet has no foundation in fact.

He says the department departed from sound military policy in not giving him powers of a commander in chief. He was not given such power because he was never commander in chief, but, though called "force commander," really exercised no important duties except such as inhered in a liaison officer and representative of the department for such duties as were specifically given him by the Secretary of the Navy and the Chief of Operations. Never for a day did the Chief of Operations divest himself of the responsibility imposed upon him by law or given him by the Secretary of the Navy. And at no time during the whole war did the Secretary of the Navy delegate to any officer the power to select flag officers for places of great responsibility. When selected, these flag officers exercised their duties with as free a hand as Operations deemed fitted in with the whole naval policy.

The only thing that counts in the acid test is results. The results abroad of the service of flag officers selected by the department attest the wisdom of their selection. They were directed to carry out the department's policies along the methods approved by the department in the great matters involving large cooperation. In all other

duties—and that embraced nearly all their duties—they were free to follow their own judgment. The results prove that no mistake was made by the department in selecting the flag officers abroad instead of giving that power to the force commander in his office in London. It would have been a military mistake to have given this power which he coveted and which he complains was withheld from him.

SIMS'S ATTEMPT TO DISTURB OUR FRIENDLY RELATIONS.

In addition to the condemnation of the people of his act in giving publicity to a letter containing what he called an "explicit admonition," which he could not have disclosed except by violation of confidence, there is another reason why the American people will not forgive this act of Admiral Sims. That reason is because it was either its evident purpose to convey to our associates in Great Britain the impression that responsible naval authority in Washington had such prejudice against Great Britain as to deny our immediate and whole-hearted contribution to victory, or would permit any critic or enemy of the United States to reflect upon America's full and efficient participation in the naval operations, and quote Admiral Sims's statement as authority for such unjust and unworthy reflection. This wrong and injustice can never be forgiven a naval officer intrusted with confidential and important duties representing the American Navy abroad. Whatever other verdict may be rendered by the great jury of one hundred and more million citizens of the United States (and that is the jury which will pass upon matters discussed in these hearings) as to this or that issue raised, there will be no division anywhere in the vote of condemnation for this action.

COMRADESHIP OF ALLIED NATIONS GLORY OF THE WORLD WAR.

An outstanding glory of the World War on sea and land was the comradeship of soldiers and sailors of the United States and their shipmates and comrades of the allied and associated nations. Naturally before the United States entered the war we had only partial information of the policies and acts of the allied nations, but as soon as Congress, upon the recommendation of the President, declared that a state of war existed between the United States and the Imperial German Government there was the freest and fullest interchange, not only of opinion and information, and the closest fellowship followed. Indeed before we entered the war, when diplomatic relations with the Imperial German Government were broken, on February 2, 1917, plans were making here and abroad for immediate cooperation as soon as Congress should act.

Upon the direction of the President, who was in close touch with conditions overseas, the Navy, in March, two weeks before we entered the war, placed armed guards on all merchant ships and it was determined to send Admiral Sims to England to be the agent of the department to secure all information the Navy would desire when war was declared, and before he arrived we held conferences at Hampton Roads and Washington with Vice Admiral Browning, of the British Navy, and Admiral Grasset, of the French Navy, and perfected working arrangements. We knew full well that, while our Navy would work in perfect fellowship with the navies of other allied

countries, by reason of the greatness of the British Navy and the big task it had assumed on the sea, our chief naval cooperation would be with that navy. It was because of this knowledge and our earnest desire to lose no time in possessing all the information their long participation in war would enable them to furnish that Admiral Sims was sent to England before war was declared. He had, of course, to go as a neutral from a neutral country, but we had been assured by the American ambassador at London that the coming of an American admiral would be welcomed, all sources of information opened to him, and that the Admiralty would furnish him "a sort of special staff."

The Navy Department sent Admiral Sims as its representative to establish and maintain the most cordial relations between our Navy and the British Navy. That was his mission. If anybody in authority in the department had entertained "idiosyncracies" or prejudices against Great Britain, or had been unwilling to work whole-heartedly with that great naval nation, he would not have favored sending Admiral Sims with his well-known pro-British "idiosyncrasies" as the department's representative to Great Britain. That is the irrefutable answer to the suggestions and intimations of any lack in desire for the closest understanding and cooperation. Admiral Sims, by reason of his known great friendliness to naval officers in Great Britain and to that country, did do what the department desired abroad, to wit, cooperate heartily with our British allies. It was to be friendly and hearty cooperation, however, between equals, but no consolidation, or no subserviency of one to the other that either country desired or would tolerate. The same spirit of earnest working together and fellowship existed in Washington, where Admiral Benson, Chief of Operations, Admiral McKean, Chief of Material, Capt. Chase and Capt. Pratt, his chief assistants in Operations, and all other officers in the Navy Department were in intimate touch and daily conference with Admiral Lowther Grant, Commodore Gaunt, and other British naval officers sent by the British Admiralty to Washington for the same purpose we sent Admiral Sims to London, which was to secure prompt exchange of information and views and to cooperate in every possible way. We had the same intimate relations with the naval representatives of the French, Italian, and other allied nations, who sent representatives to Washington.

In addition, from time to time, we had important conferences with the distinguished members of the mission embracing the most eminent men in diplomatic, war, and navy departments of allied nations, who came to Washington for conferences with the President upon matters of higher importance than those intrusted, for example, to Admiral Sims, who represented our Navy in London, or Admiral Grant, who represented the British Navy in Washington. The naval members of the mission laid before us the conditions in their country. From them we had first-hand knowledge of how we could best help the joint cause in the North Sea and in the Atlantic, on the French coast, in the Mediterranean, in the Gulf of Mexico and Caribbean Sea, where the protection of the oil supply was justly regarded as of the utmost importance. We had from Sims in England, Fletcher and Wilson in France, Wilson and Niblack in the Mediterranean, and other naval officers abroad all the information they

could obtain, and it was most valuable, but from the distinguished naval officers and cabinet officers composing these missions, such men as Balfour and Joffre, the greatest men in all the nations, we obtained the larger policies, the greater problems, and were enabled to understand better the mission of the Navy as it related to the whole national and international duty and opportunity than we could obtain it, for example, from Admiral Sims in London, Admiral Wilson in Brest, and Admiral Niblack in Gibraltar. Their reports gave us the naval point of view. The conferences with the members of the several missions gave us the whole point of view. Putting them together, the department was enabled to see the whole big naval mission and to act upon it, whereas every naval representative abroad was naturally and unconsciously more or less influenced by the conditions of the country and the opinions of the admiralty in the country, where he made his headquarters.

It will be necessary, as a matter of justice to the United States Navy, which has been charged with failure to act with more expedition in the first few months of the war, to contrast the bold and audacious policies we presented and urged, with the delay in some of those great projects caused by Admiral Sims's opposition, and the lack of faith in the practicability of some of them by the British Admiralty. This is not done in any spirit of criticism of the British Admiralty or the British Navy. The navy of that nation did a great work, and if it was slow, as it was, to undertake the laying of the barrage in the North Sea and to close the English Channel to the submarines, which proved to be the great outstanding contribution of the war; if, I say, they were slow to adopt and help carry out those projects we deemed so important, the British Admiralty and the British Navy did other great tasks in so great a way as to be worthy of the appreciation of the whole world. Our officers and our men felt that they were truly shipmates, during the war, of their British associates. But they were not closer in spirit and more devoted in effort and more united in determination to win than were the officers in the Navy Department at Washington and in the Admiralty at London. Admiral Benson and his associate officers in Washington were daily in as close touch with the British officers in Washington as were Admiral Sims and his associates in London with the British Admiralty. Our British associates freely and frankly told us they had learned by their mistakes, and we gladly adopted their suggestions and thereby avoided mistakes we might otherwise have made.

Our British associates were free to admit their mistakes. They made mistakes and so did the American Navy. There was never a war in which there were not errors of judgment and division of opinion. There never will be until the superman commands all forces. But at no time during the war was there disposition in this country to criticize the British mistakes or in that country to criticize American mistakes. Both navies, in counsel and afloat, were consecrated to their work and each gladly availed itself of the lessons taught by the mistakes of the other to increase the effectiveness of the joint naval contribution which helped to win the war. In mutual cooperation ashore and afloat and in the united sacrifice of men of both nations there came mutual esteem and fellowship. Let it be perpetuated in mutual cooperation for the victories of peace.

Let me add one more thought. You have heard many great admirals of the American Navy testify that Admiral Sims's attacks upon the work of the American Navy during the war are either wholly unwarranted or grossly exaggerated. If you could have appear before you similarly the great admirals of the British Navy you would not find one who would admit that the American Navy was responsible for the prolongation of the war for four months and the unnecessary loss of 500,000 lives. I have talked with many of these gallant gentlemen and they could not speak as they did of the American Navy if they felt that Admiral Sims's charges had any warrant in fact.

COOPERATION AND COMRADESHIP BETWEEN BRITISH AND AMERICAN NAVIES.

From the beginning to the end of the World War there was the most perfect cooperation and comradeship between the American and British Navies. The Navy Department originated this cooperation on the part of our country before any message had been received from Admiral Sims, and it was put into effect immediately after Congress declared war.

As soon as Congress declared war, we got in touch with the British and French admirals on this side of the Atlantic and within five days a formal conference of allied representatives and our naval authorities was held in the room of the General Board. As a result of that conference, verbal orders were given to send a division of destroyers to Great Britain, in addition to taking over the patrol of this coast from Halifax to Brazil. The first order issued to any American forces for European service after the United States entered the war was the following:

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, D. C., April 14.

Secret and confidential.

To: Commander Eighth Division, Destroyer Force, Atlantic Fleet, U. S. S. *Wadsworth*, flagship.

Subject: Protection of commerce near the coasts of Great Britain and Ireland.

1. The British Admiralty have requested the cooperation of a division of American destroyers in the protection of commerce near the coasts of Great Britain and France.

2. Your mission is to assist naval operations of Entente Powers in every way possible.

3. Proceed to Queenstown, Ireland. Report to senior British naval officer present, and thereafter cooperate fully with the British Navy. Should it be decided that your force act in cooperation with French naval forces, your mission and method of cooperation under French Admiralty authority remains unchanged.

Route to Queenstown: Boston to latitude 50 N., long. 20 W., to arrive at daybreak, then to latitude 40 N., long. 12 W., thence to Queenstown.

When within radio communication of the British naval forces off Ireland, call G CK and inform the vice admiral at Queenstown in British general code of your position, course, and speed. You will be met outside of Queenstown.

4. Base facilities will be provided by the British Admiralty.

5. Communicate your orders and operations to Rear Admiral Sims at London and be guided by such instructions as he may give you. Make no reports of arrival to Navy Department direct.

JOSEPHUS DANIELS.

This order represented the attitude of the Secretary of the Navy, the Chief of Operations, and every official and officer in the Navy Department from the declaration of war until victory was won. A cursory reading of this history-making order shows that from the

first we invited, secured, and carried on the working together of American and British naval forces in a way which was all that could be desired.

The object set forth in this first order of the war for overseas service was the "protection of commerce near the coasts of Great Britain and Ireland."

The mission was stated to be "to assist naval operations of entente powers in every way possible."

The direction was to "proceed to Queenstown," to "report to senior British officer present, and thereafter cooperate fully with the British Navy."

That was the wise policy of the United States. That was the wise policy of the Secretary of the Navy. That was the wise policy of Admiral Benson. This order was prepared in Operations after the policy of "cooperate fully with the British Navy" had been officially determined upon by the Secretary of the Navy.

Sir Edward Carson, then first lord of the British Admiralty, in a speech on May 17, 1917, expressed high appreciation of the "speedy action of the American Navy," saying:

The toast that I have to propose is that of the American Navy. I give it to you from the bottom of my heart. The date of this particular function is very opportune. It almost coincides with the arrival in our seas of the first installment of the assistance which the American Navy is going to give us in the terrible task that is before us. It enables us who are members of our Navy League, and it enables me as for the moment presiding over the great service of the Admiralty in this country, to express and demonstrate our appreciation of the speedy action of the American Navy and to offer a hearty welcome to the officers and men who have reached our shores. * * *

I have been told, and I have received the news with great pleasure, of the great efficiency of the flotilla which has been sent over. I am told that the construction of the ships is magnificent, that their armament is perfect, and that their officers and men are also magnificent. In my opinion, no more important event in the history of the New World has ever happened than the arrival of that flotilla of destroyers in our waters, to fight side by side with our navy. The old Union Jack is to be commingled with the Stars and Stripes. It is not merely that we are fighting side by side, though that is, of course, a matter which may have far-reaching effects in the history and relations of the two great English-speaking races. It is not merely the fact of our old kinship. It is a recognition of the fact that the Old World and the New World, whatever may be the ocean distances that separate us, have one great common ideal—the love of liberty and progress and the determination to beat back the aggressor who dares to raise a hand against the fabric of the civilization which we together have built up. We are from this day forward out together to preserve the real freedom of the seas, and we mean to do it. Not for selfish reasons, not for acquisition, not at all for supremacy or domination, but for the purpose of maintaining the very elementary principles of civilization and humanity.

That the British Navy had its critics, some of them moved by petty politics, others chronic grumblers and growlers, including officers jealous of their fellows in authority, is shown by these extracts from Sir Edward Carson's address:

This is not the occasion to review either the work of the British Navy or the task which has been set before us. It would take me a long time to answer the criticisms which are sometimes passed upon the work of the Admiralty and the British Navy. Somehow or other I am so constituted that I can not get "cold feet." I can divide my critics into various categories. There are my political critics. I despise them in the middle of war. Then there are the critics who have been disappointed in the past. Whenever you read criticisms of my colleague, Sir John Jellicoe, try to find out what is the origin of them. But after all it does not really matter. There will always be grumbings and growlings. Let them grumble and growl, and let us get on with our work. The work of the Admiralty, the work of the great British Navy, is done silently and courageously. It is done in the day. It is done in the night. It is done every hour and every minute; and I can tell you this, with all confidence, that I

believe in the whole history of the British Navy there never was a time at which our men displayed greater heroism and courage than they do at the present moment.

I hope nobody imagines that I am going to deal with the submarine menace. I have only one word to say upon the subject, and that is, that I should advise you not to pay the slightest attention to those who imagine that the only people in the world who know anything about it are the Admiralty. I don't underestimate the menace. We would be fools if we did so. It is a great, a novel, and a terrible menace. It is a menace that has been unsolved by any navy—our own Navy, the German Navy, the Austrian Navy, the Italian Navy, or the American Navy—but don't imagine that you will solve it by abuse or by funk. No; the real way to look upon it is that it is a real danger, and it is the work of men to face and to solve real dangers.

In the coming months the courage and the grit of our people may be sorely tried. It may be, in the long run, a question as to which side is going to stick it out. Well, I will tell you who is going to stick it out. We are. But you will not encourage the spirit of sticking it out if, by ill-informed criticism and trying to create discontent and want of confidence in your officers, who have proved themselves in the past efficient, great, and honorable men, you level against them criticisms over matters entirely undeserved. Our duty is not to get either swollen heads or "cold feet." To go on unremittingly from day to day and hour to hour, grappling with our difficulties until they are overcome—that is the task which is before us. We, at all events, do not shirk it.

In that task, with all its doubts and dangers and difficulties, we welcome the help of the great Republic from the west. We believe that, fighting together, we are, and will be, invincible, and, in the long run, together with them and our other allies, I feel no shadow of doubt in my own mind that we will attain that victory which will not be a victory for ourselves alone, but a victory for the whole civilized world.

The CHAIRMAN. Mr. Secretary, there are certain matters which require our attendance in the Senate, and we shall therefore have to adjourn now until 10 o'clock to-morrow morning.

(Thereupon, at 12 o'clock m., the subcommittee adjourned until to-morrow, Tuesday, May 11, 1920. at 10 o'clock a. m.)

NAVAL INVESTIGATION.

TUESDAY, MAY 11, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

The CHAIRMAN. The committee will come to order. Secretary Daniels, will you proceed?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Mr. Chairman, when the committee adjourned yesterday I was in the midst of a statement as to the cooperation and comradeship between the British and the American Navies.

From the arrival of our first destroyers the most cordial relations existed between our officers and men and Admiral Sir Lewis Bayly, commander in chief of the coasts of Ireland, who commanded our destroyers at Queenstown. Admiral Sims says in one of his magazine articles (*World's Work* for November, 1919):

Not long after our destroyers arrived at Queenstown, most of the British destroyers left—

I shall come to that again, Mr. Chairman, and show why they left and how few remained in that critical area—

to reinforce the hard-driven flotillas in the channel and the North Sea, so that the destroyer forces under Admiral Bayly became almost exclusively American. The admiral watched over these ships and their men with the jealous eye of a father. He always referred to his command as "my destroyers" and "my Americans," and woe to any one who attempted to interfere with them or do them the slightest injustice. Admiral Bayly would fight for them, against the combined forces of the whole British navy, like a tigress for her cubs. He constantly had a weather eye on Plymouth, the main base of the British destroyers, to see that the vessels from that station did their fair share of the work. Once or twice a dispute arose between an American destroyer commander and a British. In such cases Admiral Bayly vigorously took the part of the American. "You did perfectly right," he would say to our men, and then he would turn all his guns against the interfering Britisher. Relations between the young Americans and the experienced admiral became so close that they would sometimes go to him with their personal troubles; he became not only their commander, but their confidant and adviser.

On the anniversary of the arrival of the first American flotilla, Admiral Bayly, on May 4, 1918, issued a general order in which he said:

I wish to express my deep gratitude to the United States' officers and ratings for the skill, energy, and unflinching good nature which they have consistently shown and which qualities have so materially assisted the war by enabling the ships of the allied powers to cross the ocean in comparative freedom.

I wish to call your attention to the fact that Admiral Bayly seemed to have a true appreciation of the greatest task for winning the war, that is "enabling the ships of the allied powers to cross the ocean in comparative freedom."

To command you is an honor, to work with you is a pleasure, and to know you is to know the best traits of the Anglo-Saxon race.

No two navies in history ever cooperated so closely.

Admiral Sims, in a letter he wrote to me from London, May 5, 1918, said:

I inclose herewith an article on the United States Navy from the American edition of Land and Water.

I invite your attention to the marked paragraph of the first page which refers to the historic significance of our method of cooperating with the navies of our Allies. The author states that "this is the first occasion in which the ships of one allied nation have been practically incorporated (as far as the direction of operations are concerned) in the navy of another. Allied fleets have carried out operations together—as the French and the British at the Dardanelles, or the British and the Italians in the Adriatic—but never has the cooperation been more intimate—and, it may be added, more successful—than in the present instance."

This was a letter written to the Secretary of the Navy, gentlemen:

I invite your attention to this appreciation of the success of our method of cooperation because there has recently appeared in a number of papers in the United States, notably, the Washington Post, the Army and Navy Register, and the New York Tribune, criticisms of this very method of cooperation which I consider very damaging to the Navy Department and to me personally, because they tend to diminish the confidence of the public in the Navy Department's methods and to diminish my authority over the forces here.

If I may be permitted to say so, it appears to me that it would be in the interests of efficiency if criticisms of the character above referred to could be promptly and authoritatively refuted by the Navy Department.

It is difficult at this distance to refute such criticisms. We do not hear about them until long after they are published. I have written, personally and confidentially, to the editors of the Army and Navy Register, and the New York Tribune, pointing out how very much in error their actual and implied statements were, and how detrimental to the cause such criticisms are.

This article treats of the harmony existing between the British and American forces and the efficient way in which they were working together as if they were parts of one service. The paragraph marked by Admiral Sims is as follows:

Because it has been impossible to tell the public scarcely anything about American naval cooperations with the British, the historic significance of that event has been almost overlooked. As a matter of fact, however, it marks the first occasion in which the ships of one allied nation have been practically incorporated (as far as the direction of operations are concerned) in the navy of another. Allied fleets have carried out operations together—as the French and the British at the Dardanelles, or the British and the Italians in the Adriatic—but never has the cooperation been more intimate—and, it may be added, more successful—than in the present instance.

ADMIRAL BEATTY'S FAREWELL TRIBUTE TO BATTLESHIPS THAT SERVED WITH THE BRITISH GRAND FLEET.

Those "Comrades of the Mist," the British and American battle-ships serving together at Scapa Flow and in the North Sea, were bound together by ties that can not be broken. Admiral Rodman and all our officers and men felt like they were serving with brothers, and our British allies felt the same way toward our own forces.

On their departure, Admiral Sir David Beatty, the British commander in chief, in an address on board the flagship *New York*, paid

this tribute to the officers and men of the American battleships which served with the Grand Fleet:

I could not let the sixth battle squadron go without coming on board the *New York* and saying something of what I feel at this moment of your departure. I had intended to ask Admiral Rodman to permit me to say something to representatives of all the ships of the sixth battle squadron on board his flagship, but exigencies of the service have not permitted me to do that, and therefore, as Admiral Rodman has said, what I say to you, I hope you will promulgate to your comrades in the other ships, and not only to them but also to your comrades of the Atlantic Fleet.

There is not much that I have to say, but what I do say I hope you will understand comes from the heart, not only my heart, but the hearts of your comrades of the Grand Fleet.

I want, first of all, to thank you, Admiral Rodman, the captains, officers, and ships' companies of the magnificent squadron, for the wonderful cooperation and the loyalty you have given to me and to my admirals, and the assistance that you have given us in every duty you had to undertake. The support which you have shown is that of true comradeship, and in time of stress that is worth a very great deal. As somebody said the other day—

This is a very interesting paragraph, Mr. Chairman—

“The fighting is now over, the talking is now going to begin”—

Admiral Beatty is not only a great fighter, but he is a prophet—

therefore I do not want to keep you here any longer, but I want to congratulate you for having been present upon a day which is unsurpassed in the naval annals of the world. I know quite well that you, as well as all of your British comrades, were bitterly disappointed at not being able to give effect to that efficiency that you have so well maintained. It was a most disappointing day. It was a pitiful day to see those great ships coming in like sheep being herded by dogs to their fold, without an effort anybody's part; but it was a day that everybody could be proud of. I have received messages from several people, offering sympathy to the Grand Fleet, and my answer was that we do not want sympathy; we want recognition of the fact that the prestige of the Grand Fleet stood so high it was sufficient to cause the enemy to surrender without striking a blow. I had always certain misgivings, and when the sixth battle squadron—

That is the American Squadron under Admiral Rodman—

became a part of the Grand Fleet, those misgivings were doubly strengthened, and I knew then—

You see, Admiral Beatty never knew it until then, when the American Squadron with Admiral Rodman became a part of the Grand Fleet—

I knew then that they would throw up their hands.

All the world knows it now.

Apparently the Sixth Battle Squadron was the straw that broke the camel's back. However, the disappointment that the Grand Fleet was not able to strike their blow for the freedom of the world is counteracted by the fact that it was their prestige alone that brought about this achievement.

During the last 12 months that you have been with us, we have learned to know each other very well; we have learned to respect each other; we know each other's faults (are there any in the Sixth Battle Squadron, Admiral?); we know each other's good qualities, and I want you to take back a message to the Atlantic Fleet that you have left a place, a very warm place in the hearts of the Grand Fleet, which can not be filled until you come back or send another squadron to represent you. You have given us a sample of the Atlantic Fleet which I think will try the Atlantic, efficient as it is—

Here is Admiral Beatty, a British admiral, says: “efficient as the Atlantic Fleet is,” and as everybody knows it was, in 1917—

very hard to reproduce. I do not know what Admiral Mayo will say to that, but Admiral Rodman will put it up to him that way.

I understand that you are now going down to Portland, where you are going to get leave—that is so, Admiral, is it not? After that, you have a duty to perform of bringing your President to these waters; and then you will return to your own shores; and I hope in the sunshine, which Admiral Rodman tells me always shines there, you won't forget your "Comrades of the Mist," and your pleasant associations of the North Sea.

This is a queer place, as you have found out, but you are not the first to find it out. There was a great explorer, Marco Polo, who after traveling over the world for 30 years, one day found himself in the North Sea, and then went home, went to bed, and did not travel any more. I trust it will not have the same effect on any of you. But I can say this for you, that those of you that I have seen during the last 12 months seemed to have improved in many ways, if it was possible; and I think that the North Sea has a health-giving quality which must be put against all the bad points, of which there are so many.

I thank you again and again, for the great part—

Admiral Beatty does not deal in hyperbole—

for the great part the Sixth Battle Squadron played in bringing about the greatest naval victory in history. I hope you will give this message to your comrades: "Come back soon. Good-bye and good luck."

I believe I expressed the feelings of the entire United States Navy, and I may add of all the allied peoples, when on the eve of the review at New York, December 26, 1918, which greeted the returning battleships, I said:

In welcoming home the powerful American dreadnaughts which have been engaged overseas during the war, the American people will greet the officers and men with pride and congratulations. These powerful ships, the equal of any in the world, in cooperation with the British Fleet, gave such predominance of sea power in the North Sea that the German Fleet dared not invite suicide by coming out and offering battle. They did not try conclusions because they knew there never was a fleet in being that could have had a chance of victory against the British and American Fleet, working together with the same signals and the same strategy as if they were the naval power of a single nation. Their mission was as single as if they had represented only one instead of the two great English-speaking nations. Their united service typified and cemented the ties between our country and Great Britain. Their silent vigils protected commerce, secured safe passage of troops and supplies, and effectually bottled up the German Fleet, rendering it as impotent for harm as if it had never been constructed.

Sea power once again demonstrated its primacy in making land victories possible. While the American dreadnaughts, an important part of the world's strongest armada, were not given an opportunity to win a great sea victory, they did more; they cooperated in receiving the surrendered German Fleet, which capitulated to the superior force of the allied fleets, and they will be received at home with all the honors given to valiant victors.

TRIBUTE BY SIR ERIC GEDDES TO THE DISTINGUISHED SERVICE OF THE AMERICAN NAVY AND THE COMRADESHIP AND COOPERATION OF THE BRITISH AND AMERICAN NAVY.

In the fall of 1918, Sir Eric Geddes, First Lord of the British Admiralty—the same position in Great Britain as Secretary of the Navy of the United States—accompanied by distinguished British naval officers, visited the United States and spent some days in conference with the Secretary of the Navy, the Chief of Operations, and other naval officers charged with responsible duties. It was a helpful conference of men of two great English-speaking nations united in a great struggle. It was carrying on the same interchange of views begun in April, 1917, when British and French Admirals and naval officials in Washington agreed to the fullest and heartiest cooperation of naval effort in the mutual service to which those countries were dedicated. There was no time when this cooperation was not perfect from the beginning to the end of the war. After

days of conference where all matters were discussed, which could aid in winning victory, Sir Eric Geddes made a statement of appreciation of the American naval forces abroad and our mutual gratification in the hearty spirit of understanding and working together which characterized the men of the navies of both countries.

The statement of Sir Eric Geddes illustrates the estimate well-informed statesmen placed upon our American ships and American efficiency. I wish to emphasize that. It illustrates the estimate which well-informed British statesmen and I will say British sailors,—too, because I talked with many of them last April in Great Britain—placed upon our American ships and American efficiency. The statement was as follows:

In speaking of the United States naval forces I do so with the great advantage of having seen most of them personally in the course of the last 18 months, and I can assure the public that the morale and efficiency is absolutely on the top line. Not only is the keenness, technical skill, and organization of the personnel truly remarkable, but, further, the material of all ships and their equipment is of the highest efficiency and latest design.

Now, this is the statement made by the first lord of the Admiralty of Great Britain. I will read it over again:

Not only is the keenness, technical skill, and organization of the personnel truly remarkable, but, further, the material of all ships and their equipment is of the highest efficiency and latest design. What applies to your fighting ships applies also to your depot and parent ships, and I think I may say, without giving offense to the great naval services of the two countries, that the intermingling and cooperative working is giving opportunities, which both services are taking, of picking out examples of the best for adoption in and by the other service.

I am, of course, unable to disclose any details of the numbers of your vessels operating abroad, but with the permission of your Navy Department I may say that they comprise some of the largest capital ships as well as cruisers, destroyers, submarines, chasers, and many types of aircraft.

Taking these various classes in turn, I would like first of all to show you that your battleships are working with our own Grand Fleet with the most perfect coordination and efficiency—

He does not say this is what he heard, but he says “I would like to show you”—

and I had the very great pleasure of witnessing their arrival when they first joined up with our own Grand Fleet, and was able to make a signal of welcome to them on that occasion.

As regards your cruisers, they are working with us in the White Sea, North Sea, Atlantic, and the Mediterranean, and I have seen them and admired their efficiency in all these places. It is to them, as well as to the gallant destroyers, working with the corresponding forces of all the Allies, that the success of the convoy system is due. It is the convoy system which balked Germany when she adopted avowedly the inhuman and ruthless method of submarine warfare, considered inconceivable and contrary to all the traditions of the sea before the war, but which we now accept as one of the outward signs of the devil which has to be exorcised before Germany is fit to take her place as an honorable member of the League of Nations, in whatever form that oft-discussed organization may finally shape itself. Germany reckoned to end the war last year by cutting the sea communications of the alliance and by the reduction in tonnage; the dissatisfaction of the German nation with result of their criminal effort is due in great measure to the convoy system, but it is also due to the allied efforts to trap and hunt the submarine on passage and to harass it on station, and these two functions in submarine warfare must not be confused.

The ocean convoy is primarily a defensive organization, and secondarily only an offensive organization. Its complement in this new form of naval warfare is the hunting flotilla and mine field. These two measures must be carefully balanced and the relative urgency of the demands of one or the other must receive, and does receive, the most urgent consideration and ceaseless care and adjustment of the great naval officers who are charged with that responsibility. At the present moment the

United States and Great Britain have become the main base of supply for the armies of Europe, and in order to insure these lines of communication being safeguarded and kept open, very efficient naval protection is required. The large proportion of merchant shipping which brings these supplies must necessarily be American and British, and consequently the Anglo-American zone of naval operations—which may be considered to include the Atlantic, North Sea, and British coastal waters—is therefore the area with which we are most vitally concerned at the present moment, though, of course, the American and British forces are helping to police the trade routes of the Mediterranean also, in conjunction with our French, Italian, Japanese, and Greek allies, whose work and cooperation is altogether admirable. In that service a Brazilian naval contingent is on the point of taking part.

Turning now to your destroyers, I know that you all appreciate what demands the present conditions of sea warfare impose upon this type of craft. Day and night, winter and summer, they scour the sea, either hunting the submarine or keeping careful watch over the valuable human lives, equipment, and transports entrusted to their care to escort. I have both traveled in and been escorted by American destroyers and I know their high standard. They are an essential part of the fighting strength of the fleet, and together with the cruisers they are the watch dogs of the allied trade and terror of the U-boat. It will convey some idea of the strain imposed upon the vessels and their crews when I tell you that each American destroyer in European waters steams between 4,000 and 5,000 miles a month. For hard work, constant vigilance, and almost perpetual discomfort this record is hard to beat, even in this great war of universal strain and hardship. In the friendly rivalry which exists the British destroyers try to beat it and yours again try to top the record.

What I have said of the destroyers applies in no less degree to your submarines—

And our submarines were doing very good work across the sea—and chasers.

And our chasers were sinking enemy submarines.

Their untiring and constant harrassing of the enemy has helped to bring the enemy submarine to its present position, in which we can confidently say that it is now held, though not yet mastered.

This was in October, 1918.

I lay great stress on these words. A great renewed effort on Germany's part is impending. We know it and of its extent. We face it with that knowledge, and with the steadfast courage of our seamen it will be met.

What your ships of all classes are doing on and under the surface your aircraft in no less degree are accomplishing in their own element, and among all the instruments of war which are combining to make the life of the undersea pirates intolerable, there is none which causes them greater anxiety and discomfiture than the constantly vigilant aircraft.

So far I have given a very brief outline of what your various units are engaged upon, but in order to gauge the fruits of their labors just bear this one fact in mind. During the last three months seven American soldiers and their equipment have arrived in Europe every minute of the day and night, and their maintenance on top of that. That is the formidable fact which the enemy has to face, and that is the result of the exercise of sea power by the alliance, to which the American naval forces are so ably contributing.

It is a great tribute to American shipbuilding and to your enterprise that you are now able to carry more than half of these troops in your own vessels built in your own country and manned by your own men. Thanks to the merchant marine of the Allies, who with a skill, unflinching courage, and pertinacity which we can not adequately extol, we have been able to maintain those sea communications without which our man power, our munitions, and our food supplies would have been disintegrated and paralyzed.

The record of the seaborne traffic of the alliances is the clearest proof of the value of sea power about which your great naval historian, Rear Admiral Mahan, wrote so emphatically and prophetically, but this result has only been sustained by the splendid heroism and endurance of the seafaring men, whether of the fighting forces or of the Mercantile Marine.

To have had the opportunity of visiting your country in the great war is the very greatest honor and pleasure to Vice Admiral Duff and myself as representing the British Board of Admiralty—

This is the first lord of the British Admiralty, rejoicing in the glorious thing that the American Navy had done. This was the

1st of October, 1918, about. He came about the last of September. I will get the exact date.

The CHAIRMAN. This is the entire speech, is it, that he made?

Secretary DANIELS. I think it is.

The CHAIRMAN. There is nothing left out?

Secretary DANIELS. I am not certain. (Continuing reading:)

and it is an added pleasure to us that we have come at a time when the allied forces are winning all along the line, and when we are reaping the fruits of the sound naval strategy and the overwhelming sea power of the allied nations, but I have made it the keynote of all my policy and of all my advice to others not to be deluded with hopes of an early peace, but to prepare for an ever-receding duration of the war. We must always be prepared for two years more, and then only shall we have the sure means of the final victory in our hands.

October, 1918, this was.

I can not close this very brief appreciation of the magnificent work which is being undertaken by the United States naval forces operating in European waters without expressing on behalf of the Board of Admiralty and the Royal Navy our affection, in many cases personal, and our admiration of your officers and men who side by side with us and the other Allies, are keeping open the sea communications of the alliance; are reducing the enemy's fleets to impotence; and have driven his commerce from the seas. One of the most striking visible manifestations of the unity of purpose and the unity of method which I have had was afforded me when at the request of Admiral Benson I stepped from his room at the Navy Department into the chart room, where the great charts of the world show the allied naval situation at a glance.

It was unnecessary for me here in Washington to ask for explanation. I had seen such a chart in every detail upon the walls of the British Admiralty a week ago, possibly a month before that a similar one on the walls in the French Ministry of Marine, and some months before that on the walls in the Italian Ministry of Marine. Representatives of each of the allied navies are at home and welcome comrades in every other admiralty. None of the navies do much talking, but among themselves they talk the same language. They share the same dangers, they undertake indiscriminately the same responsibilities, according to the whole power behind the controlling chief of staff in each country. Since the beginning of the war the British Navy has escorted overseas to and from all theaters of war some 16,000,000 men belonging to the armies of the British Empire—

Most of them were escorted only across the English Channel, a run of an hour or two—

and the loss has been one-thousandth part of a man per hundred carried, from all causes—marine risks or enemy action—and it is our purpose and our pride to maintain and reduce that percentage in the great flow of your manhood across the Atlantic. You have had losses at sea, and you will have more losses at sea. I know that they will be faced with the fortitude shown by all the Allies in this great struggle or right against the wrong and based upon the justice of our cause and the inflexibility of the allied purpose.

I venture the opinion that when the history of this war is written there will be no more glorious page in that history than the one which tells much that to-day can not be told of the work done, the dangers faced, and the privations endured by your Navy in common with the navies of your cobelligerents, and there will be no greater manifestation of the overwhelming importance of sea power in a fight such as this has been. In that manifestation the great American Navy—the third largest in the world—played a highly honorably and increasingly important part, and it has been to myself and Admiral Duff a great honor to confer in person with the great chiefs of the Navy Department.

Prior to the publication of this statement Sir Eric Geddes on October 7 received the Washington correspondents and gave them the following statement for publication:

My visit to the United States of America in company with Vice Admiral Duff, the assistant chief of the naval staff of the Admiralty is in response to a most cordial invitation extended to us by the Secretary of the United States Navy. Mr. Daniels intimated to me recently that a visit of representatives of the British Board of Admiralty to discuss certain matters concerning the naval situation would be very wel-

come to the Navy Department and himself, and it is in this capacity and for this purpose that we have come over.

In the past we have had the great advantage of receiving in our country distinguished United States naval officers and high officials, and we know how valuable are these opportunities of close consultation. It is, therefore, a great pleasure to us and a source of keen satisfaction to have been invited to visit your country and confer with your administration.

Personally I have the added pleasure of renewing my acquaintance with the United States of America, where as a young man I spent some strenuous years learning lumber and railway work and making many good friends.

For the last 18 months we on our side have had the opportunity of seeing your Navy at work, and I am voicing the opinion not only of the Royal Navy and the British Nation, but of the whole of the Allies when I say that your sailors, no less than your gallant troops, have won our deepest admiration.

Seamanship, technical skill, endurance, ingenuity, and good fellowship—all of those we know we could expect from the United States Navy, and it is those very qualities in a degree far exceeding our anticipations which have endeared your officers and men to us all and have brought about that complete unity of spirit and purpose between the two great navies to which the present visit of the Board of Admiralty bears testimony.

The dauntless determination which the United States has displayed in creating a huge trained body of seamen out of landmen is one of the most striking accomplishments of the war. Had it not been effectively done one would have thought it impossible, and words fail me to express our admiration of this feat undertaken and accomplished by your Navy Department, of which Mr. Secretary Daniels is the civil chief.

The kindness of the invitation and the cordial and hospitable welcome of the President, Mr. Lansing, Mr. Daniels, Admiral Benson, and all other representatives of your great country whom we have met has touched us deeply, and my colleague Vice Admiral Duif and all of our party most gratefully acknowledge it.

This statement does more than attest appreciation; it shows the close and friendly cooperation, which began when the United States entered the World War, existing between the navies of the two great English-speaking nations.

The CHAIRMAN. Mr. Secretary, this is a fine tribute to the American Navy, but it does not especially deal, apparently, with the first six months of the war.

Secretary DANIELS. Mr. Chairman, I understand that the rule of the committee is that I shall finish my statement without interruption.

The CHAIRMAN. Yes, but I want to make a suggestion. If there is anything more which is not included in the statement here, I wish you would have it inserted in the record.

Secretary DANIELS. I will. I think it is all there, but if it is not, I will put it in.

THE PRESIDENT'S INSISTENCE UPON NEW AND BOLD PLANS OF NAVAL WARFARE.

The policy of the Government with reference to naval preparedness was expressed more than a year before we entered the war in a single sentence by President Wilson, the Commander in Chief of the Navy, when on the 3d day of February, 1916, in a speech at St. Louis, he declared:

There is no other navy in the world that has to cover so great an area of defense as the American Navy, and it ought, in my judgment, to be incomparably the most adequate Navy in the world.

This was the public declaration of a policy which, with the approval of the President, had been set in motion by the Navy Department.

after conference with the President, six months before the above declaration was made. In July, 1915, I had directed the General Board to make a study and to express its opinion to the department "as to what the Navy must be in the future in order to stand upon an equality with the most efficient and most practicably serviceable," and to submit—

a program * * * formulated in the most definite terms * * * planned for a consistent and progressive development of this great defensive arm of the Nation.

In compliance with this order, the General Board laid down this policy:

The Navy of the United States should ultimately be equal to the most powerful maintained by any other nation in the world. It should be gradually increased to this point by such a rate of development year by year as may be permitted by the facilities of the country, but the limit above defined should be attained not later than 1925.

As a matter of fact, I may say in parentheses that the program already authorized and being carried out will give us such a Navy before 1925; in fact, it is already authorized and recommended by the Secretary of the Navy and the General Board.

The CHAIRMAN. It is not already authorized by Congress?

Secretary DANIELS. I say it is already authorized and recommended by the General Board and the Secretary of the Navy. Congress has not yet authorized it, but I hope it will.

In the annual report of the Secretary of the Navy on December 1, 1915, I began the report with these words:

I feel it my duty to urge above everything else the necessity of the adoption by Congress of a continuing program of construction.

And added:

For the first time in the report of a Secretary of the Navy a plan is submitted which covers not only the necessities of the immediate future, but has been extended to cover a period of five years. Planning to-day what we will begin to-morrow in order to have it completed in the future is the essence of all true preparedness.

I foresaw in 1915 the necessity of action to save the waste of war, and said in that report:

Nothing is to be gained by the expenditure of millions of dollars in the haste of threatened war or in the panic of actual war.

This is conclusive evidence that the Navy Department long before war was declared was alive to the importance of preparedness and was taking every step toward that end.

In his message which he read to Congress and emphasized, President Wilson said of the continuing program (December, 1915):

The program which will be laid before you by the Secretary of the Navy * * * involves only a shortening of the time within which plans long matured shall be carried out; but it does make definite and explicit a program which has heretofore been only implicit, held in the minds of the Committees on Naval Affairs and disclosed in the debates of the two Houses but nowhere formulated or formally adopted. It seems to me very clear that it will be to the advantage of the country for the Congress to adopt a comprehensive plan for putting the Navy upon a final footing of strength and efficiency and to press that plan to completion within the next five years. We have always looked to the Navy of the country as our first and chief line of defense; we have always seen it to be our manifest course of prudence to be strong on the seas. Year by year we have been creating a Navy which now ranks very high indeed among the navies of the maritime nations.

Then the President, after detailing the size and power of our Navy when the program proposed should be completed, concluded his address delivered in person to Congress with these words:

This would be a Navy fitted to our needs and worthy of our traditions.

On October 7, 1915, I directed the General Board to prepare—

a building program for the Navy that will continue over a period of five years, with an expenditure of about \$100,000,000 each year for five years, on new construction only.

In compliance with that direction the General Board made recommendations for a building program practically as embodied in the act of August 29, 1916.

I beg to call your attention to this recommendation, which began with my letter to the General Board in July, 1915, and with my explicit direction to the General Board, of October, 1915. I made a few changes from their recommendation in my estimates to Congress, asking for 15 fleet submarines, whereas the General Board asked for 9, and for 85 coast submarines against the 58 recommended by the General Board. My total was \$502,482,214 as against the General Board's estimate of \$499,876,000, a very slight difference. As a matter of fact, owing to the increased cost of construction, the program when completed will cost nearer \$800,000,000 than the estimated \$500,000,000.

Approving my suggestion of a continuing program, the General Board said (see report of 1915):

5. The General Board is convinced of the great advantages, both military and economic, which will follow upon the acceptance of the general principle of a building program extending over a period of years. This is the first time that any administration has decided to present to Congress a continuing shipbuilding program. On one hand a continuing program enables the Navy Department to plan with greater foresight than is possible with an annual noncontinuing program. The military end to be reached at the close of such a period is thus made clearly evident by the Navy Department to Congress and to the country. On the other hand, a degree of financial security is offered the industries of the country by the foreknowledge which they thus obtain as to probable naval expenditures. This will encourage them to invest money in enlarging their plants for naval shipbuilding and all its allied industries. At the same time strong probability of continued work throughout the period of the program, will tend to reduce contract prices.

After careful consideration, Congress approved my recommendation, which the President had urged, and the bill of August 29, 1916, which, by comparison made all former naval bills look small indeed, provided for building 156 fighting ships, including battle cruisers (never before authorized by Congress), an increase of 23,200 men, with the additional authority, in case of "emergency," for the President to enlist 22,300 more. The previous authorized enlisted strength was 51,500 in contrast with the 97,000 men authorized by the act of August 29, 1916. The Navy Department and the Congress cooperated in this great epoch-making measure. I will say to you frankly, however, that nothing but the policy enunciated by President Wilson on the 3d of February, 1916, for "incomparably the most adequate Navy in the world" and his strong plea for the department's program, made possible the great forward step in naval progress contained in that bill.

This vision of the President established the fact that he was in advance of some naval officers vocal now, but silent then. It is true also that when war was declared the President sensed better than any naval expert across the seas the necessity for a bold and audacious

plan of naval warfare. He was the first to see the wisdom of adopting the convoy system, which he suggested even before we entered the war. Long before any naval authority abroad had approved the idea of the barrage, which was placed across the North Sea, the President sensed the futility—the utter futility—of depending solely upon pursuing the submarines all over the ocean, and declared the logical idea was to shut them up in their nests. His leadership for the bold and vigorous policy adopted by the department, communicated to the Secretary of the Navy from time to time even before the United States entered the war, and during its continuance, was set forth in a notable address made to officers of the Atlantic Fleet assembled on the quarterdeck of the *Pennsylvania*, the flagship of the fleet, at Yorktown, Va., in the summer of 1917. It was an intimate talk and an inspiring challenge to meet the extraordinary conditions by extraordinary methods, because, as the President said in that speech, “Nobody ever before fought a war like this,” and “somebody has got to think out a way not only to fight the submarine, but to do something different from what we are doing.” President Wilson counseled them—that is, I mean the naval officers present, all of them in the fleet—to “throw traditions to the wind,” pointing out the fatal defect in the defensive warfare being conducted against submarines. And I wish to call your attention to the most important utterance about naval policy before or during or since the war. Said the President:

We are hunting hornets all over the farm and letting the nest alone. None of us knows how to go to the nest and crush it, and yet I despair of hunting for hornets all over the sea when I know where the nest is, and I know that the nest is breeding hornets as fast as I can find them. I am willing for my part, and I know you are willing, for I know the stuff you are made of—I am willing to sacrifice half the navy Great Britain and we together have to crush that nest, because if we crush it the war is won.

To that company, upon whom he depended for bold action, President Wilson frankly declared:

Every time we have suggested anything to the British Admiralty the reply has come back that virtually amounted to this, that it had never been done in that way, and I felt like saying: “Well, nothing was ever done so systematically as nothing is being done now.”

Therefore, I should like to see something unusual happen, something that never was done before. There is no other way to win.

And the history of the war shows that he was a prophet.

Continuing in that speech the advocacy of the kind of daring naval warfare that made Nelson and John Paul Jones and Farragut victorious naval commanders, President Wilson went on to utter this counsel of daring and victory:

I have several times ventured to make this suggestion to the men about me in both arms of the service: “Please leave out of your vocabulary altogether the word ‘prudent.’ Do not stop to think about what is prudent for a moment. Do the thing that is audacious to the utmost point of risk and daring, because that is exactly the thing that the other side does not understand, and you will win by the audacity of method when you can not win by circumspection and prudence.”

The following is the full text of the address of President Wilson, never before made public, delivered on the quarter-deck of the

Pennsylvania to the commander in chief (Admiral Henry T. Mayo) and the officers of the Atlantic Fleet, August 11, 1917:

Admiral Mayo and gentlemen, I have not come here with malice prepense to make a speech, but I have come here to have a look at you and to say some things that perhaps may be intimately said and, even though the company is large, said in confidence. Of course, the whole circumstance of the modern time is extraordinary and I feel that just because the circumstances are extraordinary there is an opportunity to see to it that the action is extraordinary. One of the deprivations which any man in authority experiences is that he can not come into constant and intimate touch with the men with whom he is associated and necessarily associated in action.

Most of my life has been spent in contact with young men, and, though I would not admit it to them at the time, I have learned a great deal more from them than they ever learned from me. I have had most of my thinking stimulated by questions being put to me which I could not answer, and I have had a great many of my preconceived conceptions absolutely destroyed by men who had not given half the study to the subject that I myself had given. The fact of the matter is that almost every profession is pushed forward by the men who do not belong to it and know nothing about it, because they ask the ignorant questions which it would not occur to the professional man to ask at all; he supposes that they have been answered, whereas it may be that most of them had not been answered at all. The naivete of the point of view, the whole approach of the mind that has nothing to do with the question, creates an entirely different atmosphere. There is many a question asked you about the Navy which seems to you so simple-minded when you hear it that you laugh, and then you find you can not answer it. It never occurred to you that anybody could ask that question before, it is so simple.

Now, the point that is constantly in my mind, gentlemen, is this: This is an unprecedented war and, therefore, it is a war in one sense for amateurs. Nobody ever before conducted a war like this and therefore nobody can pretend to be a professional in a war like this. Here are two great navies, not to speak of the others associated with us, our own and the British, outnumbering by a very great margin the Navy to which we are opposed and yet casting about for a way in which to use our superiority and our strength, because of the novelty of the instruments used, because of the unprecedented character of the war; because, as I said just now, nobody ever before fought a war like this, in the way that this is being fought at sea, or on land either, for that matter.

The experienced soldier—experienced in previous wars—is a back number so far as his experience is concerned; not so far as his intelligence is concerned. His experience does not count, because he never fought a war as this is being fought, and therefore he is an amateur along with the rest of us. Now, somebody has got to think this war out. Somebody has got to think out the way not only to fight the submarine, but to do something different from what we are doing.

We are hunting hornets all over the farm and letting the nest alone. None of us knows how to go to the nest and crush it, and yet I despair of hunting for hornets all over the sea when I know where the nest is and know that the nest is breeding hornets as fast as I can find them. I am willing for my part, and I know you are willing, because I know the stuff you are made of—I am willing to sacrifice half the Navy Great Britain and we together have to crush that nest, because if we crush it, the war is won. I have come here to say that I do not care where it comes from, I do not care whether it comes from the youngest officer or the oldest, but I want the officers of this Navy to have the distinction of saying how this war is going to be won.

And we had it, Mr. Chairman. I wish you would put that down. He said:

I do not care whether it comes from the youngest officer or the oldest, but I want the officers of this Navy to have the distinction of saying how this war is going to be won.

That is what the President said in August, 1917; and when we completed the barrage, when we proposed the barrage—the American naval officers had the honor of saying how this war should be won so far as the naval contribution was concerned. But of course the war was won in France. [Continuing reading:]

The Secretary of the Navy and I have just been talking over plans for putting the planning machinery of the Navy at the disposal of the brains of the Navy and not stopping to ask what rank that brains has, because, as I have said before and want to repeat, so far as experience in this kind of war is concerned, we are all of the same rank.

I am not saying that I do not expect the admirals to tell us what to do, but I am saying that I want the youngest and most modest youngster in the service to tell us what we ought to do if he knows what it is. Now, I am willing to make any sacrifice for that. I mean any sacrifice of time or anything else. I am ready to put myself at the disposal of any officer in the Navy who thinks he knows how to run this war. I will not undertake to tell you whether he does or not, because I know that I do not, but I will undertake to put him in communication with those who can find out whether his idea will work or not. I have the authority to do that and I will do it with the greatest pleasure.

So that the idea that is in my mind all the time is that we are comrades in this thing. I was talking the other day with some commercial men about certain questions which seemed to affect their material interest in this war, and I said, "I can't imagine a man thinking about those things. If we don't win this war, your material interest won't make any difference. The prices you are charging are a matter of indifference with regard to the results of this war, because if we don't win it you will not have the chance to charge any prices, and I can't imagine a man in the present circumstances of the world sitting down and thinking about his own interest or the interest of anybody personally associated with him as compared with the interest of the world." I can not say it too often to any audience; we are fighting a thing, not a people. The most extraordinary circumstance of modern history is the way in which the German people have been subordinated to the German system of authority, and how they have accepted their thinking from authority as well as their action from authority. Now, we do not intend to let that method of action and of thinking be imposed upon the rest of the world. Knowing as some of us do the fine quality of the German people, we are sorry that it was ever imposed upon them and we are anxious to see that they have their glad emancipation, but we intend to see to it that no other people suffers a like limitation and subordination. We went into this war because this system touched us. These people that stopped at nothing, paid no attention to our rights, destroyed the lives of our people, invaded the dignity of our sovereignty, tried to make interest against us in the minds of our own people, and the thing was intolerable. We had to strike, but thank God we were striking not only for ourselves but for everybody else that loves liberty under God's heaven, and therefore we are in some peculiar sense the trustees of liberty.

I wish that I could think and had the brains to think in the terms of marine warfare, because I would feel then that I was figuring out the future history of the political freedom of mankind. I do not see how any man can look at the flag of the United States and fail having his mind crowded with reminiscences of the number of unselfish men, seeking no object of their own, the advantage of no dynasty, the advantage of no group of privileged people, but the advantage of his fellowmen, who have died under the folds of that beautiful emblem. I wonder if men who do die under it realize the distinction they have. There is no comparison between dying in your bed in quiet time for nothing in particular and dying under that emblem of the might and destiny and pride of a great free people. There is distinction in the privilege, and I for my part am sorry to play so peaceful a part in the business as I myself am obliged to play; and I conceive it a privilege to come and look at you men who have the other thing to do and ask you to come and tell me or tell anybody you want to tell how this thing can be better done; and we will thank God that we have got men of origina-tive brains among us.

And I may say in parenthesis that we did have the men of origina-tive brains, and in the Navy Department in Washington the greatest constructive movement of the war was originated and carried out, mainly by the American Navy [continuing reading]:

We have got to throw tradition to the wind.

No, as I have said, gentlemen, I take it for granted that nothing that I say here will be repeated, and therefore I am going to say this: Every time we have suggested anything to the British Admiralty the reply has come back that virtually amounted to this, that it had never been done that way, and I felt like saying, "Well, nothing was ever done so systematically as nothing is being done now." Therefore, I should like to see something unusual happen; something that was never done before; and inasmuch as the things that are being done to you were never done before, don't you think it is worth while to try something that was never done before against those who are doing them to you? There is no other way to win, and the whole principle of this war is the kind of thing that ought to hearten and stimulate America. America has always boasted that she could find men to do anything. She is the prize amateur nation of the world. Germany is the prize professional nation of the world. Now,

when it comes to doing new things and doing them well, I will back the amateur against the professional every time, because the professional does it out of the book and the amateur does it with his eyes open upon a new world and with a new set of circumstances. He knows so little about it that he is fool enough to try the right thing. The men that do not know the danger are the rashest men, and I have several times ventured to make this suggestion to the men about me in both arms of the service: "Please leave out of your vocabulary altogether the word 'prudent.' Do not stop to think about what is prudent for a moment. Do the things that is audacious to the utmost point of risk and daring, because that is exactly the thing that the other side does not understand, and you will win by the audacity of method when you can not win by circumspection and prudence." I think that there are willing ears to hear this in the American Navy and the American Army because that is the kind of folks we are. We get tired of the old ways and covet the new ones.

So, gentlemen, besides coming down here to give you my personal greeting and to say how absolutely I rely on you and believe in you, depend on you for brains as well as training and courage and discipline. You are doing your job admirably, the job that you have been taught to do; now let us do something that we were never taught to do and do it just as well as we are doing the older and more habitual things, and do not let anybody ever put one thought of discouragement into your minds. I do not know what is the matter with the newspapers of the United States. I suppose they have to vary the tune from time to time just to relieve their minds, but every now and then a wave of the most absurd discouragement and pessimism goes through the country and we hear nothing except of the unusual advantages and equipment and sagacity and preparation and all the other wonderful things of the German Army and Navy. My comment is always the very familiar comment, "Rats." They are working under infinite disadvantages. They not only have no more brains than we have, but they have a different and less serviceable kind of brains than we have, if we will use the brains we have got. I am not discouraged for a moment, particularly because we have not even begun and, without saying anything in disparagement of those with whom we are associated in the war, I do expect things to begin when we begin. If they do not, American history will have changed its course; the American Army and Navy will have changed their character. There will have to come a new tradition into a service which does not do new and audacious and successful things.

I am very much obliged to you for having given me this opportunity to see you and I hope you will also give me the pleasure of shaking hands with each one of you. If you ever want me again for anything in particular—because I am a busy man and can not come for anything that is not particular—send for me and I will come.

THE NORTH SEA MINE BARRAGE.

The great mine barrage across the North Sea, stretching from the Orkney Islands 230 miles to Norway, was the most effective measure that could have been adopted to curb the submarines. Rear Admiral Strauss, who commanded the American Mine Forces which laid 80 per cent of that barrage, and knows more about its effectiveness than any other officer who has testified before this committee, told you that if the northern barrage and the barrage across the Straits of Dover had been fully completed as we planned, "it would have ended the submarine menace, so far as submarines going from the North Sea into the broad Atlantic was concerned," and that the building of the mine barriers across the Adriatic and the Aegean Sea, for which we were preparing mines and material, "would have actually ended the submarine operations."

If this mine barrage, Mr. Chairman, had been laid in 1917, instead of in 1918, it would have done more than all the other measures put together to curb the submarines. Millions of tons of shipping would have been saved, and with the other barrages laid, the German U-boat warfare would have been ended. How much valuable shipping, how many lives, how many billions of dollars were lost by the delay in adopting the Navy Department's mine-barrage plans, I leave you to estimate.

Six months elapsed before we secured the British Admiralty assent to our plan for the North Sea mine barrage. The Bureau of Ordnance submitted its memorandum outlining the plan on April 15, 1917, nine days after we declared war, and a cablegram was at once sent Admiral Sims asking if it was not practicable to blockade the German coast and prevent the ingress and egress of submarines. It was, as Admiral Strauss told you, not until October 23—the proposition having been put April 3, 1917—that the Admiralty finally expressed its approval of the scheme.

SIMS OPPOSED AND DISCOURAGED THE PROJECT.

Admiral Sims had, from the beginning, declared such a project impracticable, had rejected for months every plan of the kind we proposed, and even in the allied naval conference of September 4 and 5, at which the detailed plans carried over by Admiral Mayo were presented and given favorable consideration, he was still expressing his opposition and doubt as to its effectiveness. In the account of the proceedings of that conference, at which the barrage plan was presented for discussion, Admiral Sims is quoted as saying:

It must be successful completely or it is not successful at all. Either the barrage is successful absolutely or it fails absolutely.

This was in September, 1917, five months after we had proposed the project, and in the conference at which the British were giving favorable consideration to it. In his testimony before this committee Admiral Sims has devoted thousands of words to an attempt to explain away his opposition to this barrage. But the officials of the Navy Department and the Bureau of Ordnance know, and the records show, that no one did so much to discourage and delay the plan, and no one was so active in his opposition, as was Sims himself.

SIMS TRIES TO ROB THE UNITED STATES NAVY OF ITS JUST DUES AND GIVE BRITISH CREDIT FOR BARRAGE PLAN.

Though the plan of the North Sea mine barrage originated in the Navy Department, was proposed and urged by us for half a year before we could induce the British Admiralty to approve it, though four-fifths of it was composed of American mines designed and constructed in America, transported 3,400 miles overseas, and laid by American vessels, Admiral Sims attempted to rob America and the United States Navy of the credit for initiating this great achievement and to give you the impression that it was a British plan which our Navy merely assisted in carrying out.

Admiral Sims told you that the plan for the North Sea mine barrage was drawn up and proposed by the British Admiralty, and he actually declared that the plan was "held up for discussion to see whether the American Navy Department would agree to the laying of that barrage." When you review the evidence I believe you will be convinced that his statements are utterly misleading in regard to the entire course and attitude, as well as the activities of the Navy Department and the Bureau of Ordnance.

The following is taken from the official record of Admiral Sims's testimony:

It was at this time—that is, just after the middle of August—that Admiral Mayo arrived in London.

I may say in parentheses that it was necessary for the Navy Department to send Admiral Mayo to London to take this barrage up with the Admiralty, because Admiral Sims had always opposed and doubted it. [Continuing reading:]

He brought with him a memorandum from the Bureau of Ordnance with regard to the new mine, and had been instructed by the department to discuss, at the allied conference, the possibility of offensive operations based upon the employment of this new mine.

In the agenda for the conference, prepared by Admiral Jellicoe, item 2 was that of a mine or net barrage, either in German waters or further afield. In his report of the conference, addressed to the Secretary of the Navy on September 8, Admiral Mayo said, regarding the discussion that took place:

"The British Admiralty put forward, as an alternative to a close offensive in German waters, the suggestion that the activities of enemy submarines might be restricted by the laying of an effective mine field or mine net barrage. If such an operation were undertaken it would appear that it would take the form of—

"1. An efficient mine field barrage, so as to completely shut in the North Sea, which was estimated to require about a hundred thousand mines, a number which would not be available for some considerable time; or

"2. A barrage of mine nets for the same purpose, which proposal was, in view of experience to date, deemed impracticable. The conference, after discussion, agreed that the distinct mine barrage could not well be undertaken until an adequate supply of mines of satisfactory type was assured, and that until or unless such conditions ensue, the improvements and extension of the present system of mine fields was desirable; and further, that a barrage of mine nets was impracticable."

This was Admiral Mayo's report.

The same information was cabled to the department by Admiral Mayo in cables of September 5 and September 6, 1917.

It is apparent, from the results of this conference, that once again the impracticability was clearly shown of any such scheme—

This is Admiral Sims saying this—

as that proposed by the department in its cable of May 11, which was based upon the assumption that a barrier of mine nets could be planted and maintained.

The description of the new mine, brought over by Admiral Mayo, gave an entirely new direction to the discussion, and before Admiral Mayo left he was provided with a plan, drawn up in a conference of allied officers, for a barrage of mines of this new type to be put across the North Sea.

On September 13 Admiral Mayo received a message from Admiral Benson, emphasizing the great possibilities of the new mine, stating that the British officers sent over to the United States to examine it had found it most satisfactory and urging that immediate action be taken. The result was a proposal by the Admiralty of a definite scheme for the northern mine barrage.

On October 21, after Admiral Mayo had returned to Washington and conferred with the department, the department cabled me in their No. 772 as follows:

"Sixth. Contract has been let for 100,000 mines of American type. The United States has offered to commandeer, for British Admiralty, three vessels suitable for mine laying and in addition can probably commandeer two or three more vessels suitable for mine laying, to be manned by United States, for employment in co-operation with British mine-laying force, in joint plan which may be finally agreed upon."

The CHAIRMAN. These are quotations. From whom are they quoted?

Secretary DANIELS. They are quoted from Admiral Sims's testimony before your committee.

The CHAIRMAN. From Admiral Sims's testimony?

Secretary DANIELS. Yes. I am giving his statement in full, Mr. Chairman. I want his statement fully before the committee. [Continuing reading:]

"Seventh. Question of proposed mine barrage, Scotland to Norway, as presented to Navy Department, is not definitely concurred in, but careful consideration is being given to this particular subject, with a view to arriving at a definite conclusion in

regard to employment of the mine barrage, which measure is considered in principle to promise good results."

That is to say, the mine barrage of the North Sea, the plan of which was drawn up by the British Admiralty and which had been proposed by the British Admiralty and which was taken home by Admiral Mayo, was held up for discussion to see whether the American Navy Department would agree to the laying of that barrage.

That is Admiral Sims. Now, the facts are as follows:

NAVY DEPARTMENT PROPOSED BARRAGE PLAN AND URGED IT CONTINUOUSLY UNTIL IT WAS ADOPTED.

The plan for a mine barrage across the North Sea was presented by the Bureau of Ordnance on April 15, 1917, and while this was improved as better mines were developed and was modified to meet conditions, as is the case with all such projects, this embodied the main features of the project as adopted and carried out.

That for months the Navy Department had urged the building of such a barrage, and had made one proposition after another, only to have them disapproved by the British Admiralty and declared "unfeasible" by Sims.

At last, despairing of getting any action through Sims, the Navy Department directed Admiral Mayo to present the subject to the British Admiralty, and he took with him to London the memorandum of the Bureau of Ordnance describing the new type of mine we had developed which was especially adapted to this work.

Admiral Mayo had been instructed by the Navy Department to discuss the mine barrage project at the Allied Naval Conference which met in London September 4 and 5.

"In the agenda for the conference, prepared by Admiral Jellicoe, item two was that of a mine or net barrage either in German waters or farther afield," says Sims, who also quotes from Mayo's report of the conference the statement that "the British Admiralty put forward, as an alternative to the offensive in German waters, the suggestion that the activity of enemy submarines might be restricted by the laying of an effective mine field or mine net barrage." Sims cites this in his effort to prove that the mine barrage was a British project. The truth is, as every one familiar with such matters knows, that, as the operation was in British waters and the area patrolled by British vessels, it was only proper that the proposition should be presented to the conference by the British Admiralty. As Admiral Jellicoe made out the agenda for the conference and led the discussions, it was only through him that the general plan could be placed in the formal list of subjects proposed for discussion.

"Admiral Mayo was provided," Sims says, "with a plan drawn up in conference of naval officers, for a barrage of mines of this new type to be put across the North Sea." This plan was not only based on the new mines we had developed, but upon the general proposition we had put forward in April and urged continually for five months.

Sims himself says that on September 13 Admiral Mayo "received a message from Admiral Benson emphasizing the possibilities of the new mine, stating that the British officers sent over to the United States to examine it had found it most satisfactory, and urging that immediate action be taken." "The result," Sims states, "was a proposal by the Admiralty of a definite scheme for the northern mine barrage." This shows how insistently the Navy Department was

urging this project, and it was this insistence that led to the adoption of the plan. Sims's statement that the "proposal" came from the Admiralty is ridiculous in view of the fact that we had proposed and urged it months previous.

Sims's quotation of paragraph 7 of the dispatch of October 21 to support his allegation that the project had been "held up for discussion to see whether the Navy Department would agree to the laying of the barrage" is refuted by the statement immediately preceding it that "Contract has been let for 100,000 mines of American type"—you do not hold up a thing for discussion when you order a hundred thousand mines—and that we had offered to commandeer mine-layers to carry out the joint operation. The question under discussion at that time were details as to the location, patrol, etc., where the changes proposed by the British appeared likely to reduce the efficiency of the barrage.

It was not until October 23, as Admiral Strauss pointed out, that the British Admiralty finally expressed their approval of the barrage scheme. The Navy Department had already given contracts for all the mines required, and was actively at work on the material. Changes of various kinds were suggested by the Admiralty from time to time, which caused some delay and annoyance, but the scheme was carried out successfully along the general lines proposed by the Bureau of Ordnance nine days after we declared war.

Documents and dispatches confirming the above statements will be given in detail:

PLANS PROPOSED BY THE BUREAU OF ORDNANCE ON APRIL 15, 1917.
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The memorandum submitted by the Bureau of Ordnance, April 15, 1917, referred to two subjects—mine barrages across the North Sea and the Adriatic to prevent the ingress and egress of submarines, and protection of merchant ships by means of cellular construction and "blisters." That memorandum, which has been furnished in full to your committee, I think by Capt. Pratt, urged that we "stop the submarines at their source," and bear in mind that that was the plan of the Navy Department from April, 1917, to stop the submarines at their source; to keep the hornets from getting into the ocean; and it was suggested that mine barriers be laid across the North Sea, the Adriatic and the Dardanelles, stating:

The northern barriers would extend from the mid-eastern coast of Scotland to the Norwegian coast, a distance of about 250 miles.

The southern line (that is, to close the Straits of Dover), would extend from the southeast coast of England to the point on the French coast near the Belgian frontier, a distance of about 40 miles.

Though this plan was based on mines then in existence and proposed that they be laid much closer together than was found necessary; estimating that the entire scheme for the North Sea, the Mediterranean and the Adriatic, would involve perhaps a million mines, over ten times as many mines as were actually used in laying the northern barrage, the Bureau of Ordnance expressed the conviction that it was possible to manufacture these mines in 50 days. An immediate decision was urged. If the plan had been adopted, as we proposed and urged, in May, 1917, most, if not all of it, might have been laid in 1917. That, even if it had only been partially completed.

in 1917, it would have had a tremendous effect in curbing the submarines, is shown by the fact that it did begin the function within a month after it was started. As Admiral Strauss recounted, the first mines were placed on June 8, and "the barrier began to take toll of the enemy's submarines as early as July 9, when one was disabled on the barrier and compelled to return to Germany."

Chasing submarines over vast expanses of sea seemed so futile and illogical when they might be penned up in their home waters, we believed firmly that some such plan should be adopted. The very day after the first memorandum of the Bureau of Ordnance was submitted, April 16, 1917, I sent Admiral Sims the following dispatch:

Is it not practicable to blockade German coast efficiently and completely, thus making practically impossible the egress and ingress of submarines? The steps attempted or accomplished in this direction are to be reported at once. Yours of noon 14th April will be given earnest and immediate attention.

DANIELS,
Secretary of the Navy.

"FOUND QUITE UNFEASIBLE," SIMS REPLIED.

Admiral Sims replied to this in a cablegram dated April 18, 1917. He read you most of that dispatch as follows:

To absolutely blockade the German and Belgian coast against the entrance and departure of submarines has been found quite unfeasible. Attempts have been made with all possible means to stop egress and to prevent nets and mines being dragged out. Many nets and mine fields have been, and continue to be, laid—destroyers, submarines and other vessels have been used. Of course for craft operating so near enemy bases, the danger is great and the results have been that several have been mined and torpedoed. Even to keep up an effective patrol against submarines and raiders between Norway and Scotland has been found quite unfeasible; far too many ships were attacked. On lines between Iceland and Scotland, and between Scotland and Greenland, ice floes as well as enemy craft must be guarded against on lines where patrol is now kept up.

It is necessary to move lines after each enemy contact in order to maintain them and to prevent torpedoing, as there are no available ships to protect the cruisers from attack by submarines. The destroyer has shown itself to be, to a great degree, the most efficacious enemy of the submarines attacking commerce. All possible means are taken by the enemy to force their being assigned to other duty, even to sinking ships on hospital service. With the exception of the minimum number required by the Grand Fleet for carrying troops and their supplies, all destroyers are now so used. These vessels are being constructed as expeditiously as possible, but their number is quite insufficient to meet the existing submarine crisis, particularly as it affects merchantmen.

SIMS.

THOUGH BRITISH PLANS HAD ALL FAILED, SIMS OBJECTED TO OUR PROPOSING ANY NEW PLANS.

But Admiral Sims did not read to you the concluding paragraph of that dispatch, which was as follows:

To best of my knowledge and experience we should adopt present British methods and base further developments only upon actual experience in cooperation with them.

LLOYD-GEORGE THOUGHT IT COULD BE DONE, BUT SIMS WAS SURE IT COULDN'T.

In his letter written the next day, April 19, Admiral Sims went into further details to show how "unfeasible" was the idea of preventing the submarines from escaping from their own ports, either

by mines or any other scheme. That the British premier, Lloyd-George, had an idea that it ought to be possible, but Sims argued him out of it, as shown by the following extracts from that letter from Admiral Sims. [Reading:]

The prime minister only two days ago expressed to me the opinion that it ought to be possible to find physical means of absolutely sealing up all escape of submarines from their own ports.

I may say, Mr. Chairman, in parenthesis that it is right remarkable that Lloyd-George and the President shared the opinion of the Bureau of Ordnance and the Secretary of the Navy and the Navy Department that it was possible. But Admiral Sims goes on to say:

The fact that all such methods (nets, mines, obstructions, etc.) inherently involve the added necessity of continuous protection and maintenance by our own naval forces is seldom understood and appreciated.

And then he adds:

I finally convinced the prime minister of the fallacy of such propositions by describing the situation into which we would be led, namely, that in order to maintain our obstructions we would have to match the forces the enemy brought against them until finally the majority, if not all, of our forces would be forced into dangerous areas, where they would be subject to continual torpedo and other attack—in fact, in a position most favorable to the enemy.

Then he goes on to say in this letter to the Secretary of the Navy:

Entirely outside of the fact that the enemy does, and always can, force exits—

Always can. Bear that in mind; he “always can.” When our mine barrage was laid, he did not.

and thereby nullify the close blockade, the weather is a serious added difficulty. The heaviest anchors obtainable have been used for nets, mines, and obstructions, only to have the arduous work of weeks swept away in a few hours of heavy weather. Moorings will not hold. They chafe through. In this respect we could be of great assistance—i. e., in supply of moorings and buoys.

The channel is not now, and never has been, completely sealed against submarine egress, let alone the vaster areas of escape to the north. Submarines have gone under mine fields and have succeeded in unknown ways in evading and cutting through nets and obstructions.

I now may say from the very first beginning of our entrance into the war, the very first suggestion we made in cooperating with the British and French, was that we never could put an end to the submarine menace until we shut up the Dover Channel and put a barrage across the North Sea. That was the essential naval contribution.

BRITISH ANTISUBMARINE PLANS HAD FAILED.

The plans then in use by the British, April, 1917, as Admiral Sims had repeatedly stated, had proved an utter failure. Submarines were sinking shipping at the rate of over 800,000 tons a month. The British had not only not adopted convoy, but were pursuing the exact opposite, the dispersion of shipping, and regarded that as the best method. The only direct antisubmarine activity they were carrying on was patrolling of critical areas, and though this method had proved a failure, it was carried on for months afterward. Sims, in one of his magazine articles, in *World's Work* for September, 1919 (p. 508), says:

We figured that to make the patrol system work with complete success we should have to have one destroyer for every square mile. The area of the destroyer patrol

off Queenstown comprised about 25,000 square miles; in other words, the complete protection of the trans-Atlantic trade routes would have taken about 25,000 destroyers. And the British, as I have said, had available anywhere from 4 to 15 in this area.

That is from Sims.

Yet the one recommendation Sims urged upon us was that we "adopt British methods" and that we rush more destroyers to Europe to join in this futile chase. As he says, it would have taken 25,000 destroyers to have made an effective patrol against the submarines in this area alone, and the American Navy had 50.

When the House Naval Affairs Committee visited Europe in 1915 the chairman of that committee, upon leaving, asked Admiral Sims what Congress could do to help out. There was only one recommendation he had, "Send us 25,000 destroyers." But when the barrage was in!

NO SOLUTION IN SIGHT, JELlicoe SAID.

Did the British have any other plans that gave promise of success? Sims says they had not. In that same magazine article (p. 493), in describing his interview with Admiral Jellicoe, who disclosed the enormous amount of shipping being sunk by submarines, Sims says:

"It looks as though the Germans were winning the war," I remarked.

"They will win unless we can stop those losses, and stop them soon," the admiral replied.

"Is there no solution for the problem?" I asked.

"Absolutely none that we can see now," Jellicoe announced.

Though, Sims admits, all the methods tried by the British had failed, and there were none in sight or contemplated that gave promise of success, Sims was opposing every plan we suggested and urging that the Navy Department should merely "adopt present British methods and base further developments only upon actual experience in co-operation with them." He meant that we must abandon all our bold and efficient methods and ideas, and carry on the same ineffective methods. He not only opposed the mine barrage project then and continuously afterward until the British had finally adopted it, but objected to our proposing any new plans whatever.

ORDERED TO SUBMIT PLAN TO BRITISH ADMIRALTY.

Admiral Sims's reports that all plans of mine barrages had failed and his assertion that any such scheme was "unfeasible" did not convince the Navy Department. We knew it was a huge undertaking, but we believed it could be done. His report that all attempts to shut in the submarines by a close blockade, using mines, nets, and patrols in Heligoland Bight and along the Flanders coast had failed, focused the attention of the department upon the plan proposed by the Bureau of Ordnance for mine barrages across the North Sea and the English Channel.

The Office of Naval Operations, on May 9, 1917, outlined these plans, just a year after the war began, in a memorandum to be submitted to the British Admiralty——

The CHAIRMAN. 1917?

Secretary DANIELS. 1917.

The CHAIRMAN. That is not a year after the war began.

Secretary DANIELS. Not a year, a month after. Did I say a year? The CHAIRMAN. Yes.

Secretary DANIELS. Just a month after. I beg pardon. The office of Naval Operations on May 9, 1917, outlined these plans in a memorandum to be submitted to the British Admiralty, and I sent the following order to Admiral Sims, which he received May 11:

Consult the British Admiralty in regard to following:

Much opinion is in favor of concerted efforts by the Allies to establish a complete barrier across the North Sea, Scotland to Norway, either direct or via the Shetlands, to prevent the egress of German submarines.

This plan would involve the use of various forms of mines, nets, patrols, and the release for this purpose of all ships upon American coast patrol as well as many vessels of the Allies now employed elsewhere.

The plan also involves regulations for the commerce of Holland and Scandinavian neutrals to pass barriers and definite controlled gates.

The difficulty and size of the problem is recognized, but if it is possible of accomplishment the situation would warrant the effort.

If this plan is not feasible could not the same plan be carried out between Denmark and Norway across the Skaggerack.

Make full report.

DANIELS,
Secretary of the Navy.

“QUITE IMPRACTICABLE,” THE ADMIRALTY DECIDED.

Sims's personal opposition to any such project was so evident from his previous dispatches, that this order was made peremptory, compelling him to submit the plan to the British Admiralty and secure its formal opinion. The Admiralty replied on May 13:

From all experience Admiralty considers project of attempting to close exit to North Sea to enemy submarines by method suggested to be quite impracticable. Project has previously been considered and abandoned. The difficulty will be appreciated when total distance, depths, material, and patrols required and distance from base of operations are considered. Even if practicable to lay, maintain, and protect such a barrage, it would not, owing to want of resilience, prove effective against the passage of submarines fitted with cutters.

Special memorandum with drawings sent to Washington deals fully with limitations of barrage as result of experience.

SERIOUS ATTEMPTS AT SUCH BARRIERS ABANDONED, SIMS REPORTED.

Sims in his own dispatch regarding the subject, sent May 14, stated that—

The abandonment of any serious attempts at blockading such passages as Scotland-Norway, the Skaggerack and Scotland to Shetlands has been forced by bitter and expensive experience; all barrages, whether of mines or nets or both are not an absolute solution, for the fundamental reason that nets do not stop submarines and mine barriers can not be wholly effective unless they can be maintained by patrol at all points.

Regarding the mine-barrage project Admiral Sims, in his dispatch of May 14, said:

Replying department's cable of May 11, concerning net and other barrages for preventing the egress of enemy submarines, the general situation is as follows, based upon full conference with British Admiralty:

According to their experience all barrages, whether of mines or nets, or both, are not an absolute solution for the following fundamental reasons: Nets do not stop submarines. Mine barriers can not be wholly effective unless they could be maintained by patrol at all points. Few of the 30,000 laid in Heligoland Bight can be watched, but even if all could be patrolled it would not be wholly effective because the necessarily locally weak dispersed line of patrols can be broken by enemy concentration attacks at any point and as often as may be necessary and mines dragged out, thus

releasing submarines. A barrage that can be thus broken at will by concentrated attack is ineffective. This subject was fully explained in my letter of May 11, now on the way. For special purposes of embarrassing enemy movements unprotected barrages of mines have always been and are now extensively used in certain areas.

Bitter and extensive experience has forced the abandonment of any serious attempt at blockading such passages as Scotland to Norway, Scotland to Shetlands, Skaggerack. The one place that serious attempt at mine barrage is still attempted is the Heligland Bight. Over 30,000 mines are now planted there and mine losses there are replaced as fast as possible, about 3,000 a month. This, of course, does not and probably never can be absolutely effective for reasons above given. Enemy submarines can always find passages around and through principally close in shore and through island passages and gaps dragged in mine fields. The larger the number of mines, however, the greater degree of embarrassment to enemy. Hence the more mines we can send the better, and there is no limit to number that would be useful. Mined area much too extensive for all to be patrolled, hence no definite knowledge of number or submarines destroyed or damaged by mines.

SET FORTH MANY DIFFICULTIES AND OBJECTIONS.

Admiral Sims's letter of May 11, 1917, to which he refers in his dispatch of May 14, rehearsed numerous difficulties and objections to any kind of mine barrier, most of which did not apply to the plan that we proposed, as will be seen from the text of that portion of his letter:

15. Numerous propositions are made to the British Admiralty that have for their object the closing of the North Sea of the German ports against the ingress or egress of submarines. These are presented by all classes of people, including members of Parliament.

They are, generally speaking, of two classes, namely, mines or nets, or both. I have gone over this whole matter with the First Sea Lord and those members of the Admiralty Board who are specially charged with the practical details of such matters.

16. As may well be imagined, this whole subject has been given the most earnest consideration, as it is of course realized that if submarines could be kept from coming out the whole problem would at once be solved.

17. As a result of this consideration many schemes have been tried. The following is a brief summary of those tried and the difficulty encountered.

18. It has been found that no net will stop a submarine if it is securely anchored at each end. The submarines are fitted with net cutters on the bow and sides, housing periscopes, and strong steel guys from the bow to the tower.

19. But even those not so fitted can steam through a net unless one end is held by a trawler with winch for slacking off the anchor line.

20. Nets have been fitted, with numerous small mines which will blow a hole through a submarine's sides, but as soon as the nature and location of such nets were known, the submarines made a practice of approaching with the periscope out until the surface buoys were sighted, then rising to the surface, running over the buoys, and immediately diving again. An attempt is being made to so fit the buoys that contact with them will explode the mines immediately below.

21. There has been great difficulty in maintaining nets and mines in place. Gales frequently sweep out both, and the enemy mine sweepers are constantly at work destroying them.

22. In some places neither mines nor nets are effective on account of the strong tides. This is particularly the case between the Orkney and Shetland Islands.

23. Mines and nets are very extensively used in the attempt to prevent the ingress and egress of submarines from German ports and to embarrass their movements, and also in attempting to prevent their passage through the channel. I have been shown the working charts and have had the various efforts explained to me by Admiral Jellicoe.

24. Generally speaking, the area inclosed, within a line running first NNW., then north, from Texal Island, thence in a curve to the eastward to a point north of Born Reef, contains numerous lines and fields of mines. Within this area there are at least 30,000 mines, and additional ones are being laid at the rate of 3,000 a month. The field is now being extended to the westward and northward from Texal Island to Broken Bank. (See chart of the British Islands and North Sea.) Some submarines are known to have been destroyed by these mines, but they do not know. Some have

also been destroyed in the channel; but the difficulty of the problem will be recognized from the fact that the comparatively narrow Dover Strait is not now completely closed to the passage of submarines.

25. This latter illustrates the difficulty of closing such a wide gap as the northern entrance to the North Sea from Kinnard Head to Norway. On this line of about 230 miles there is from 30 to over 100 fathoms of water. The number of patrol boats necessary to watch these nets would be very great.

26. As for protecting such a long line, or any line of considerable length, it is, of course, physically impossible to do so effectively, and this for the fundamental reason that the defense is stretched out in a long and locally weak line, while the enemy can concentrate an attack at any point of it, destroy the patrol vessels and drag out some section of the mines or net, thus permitting the passage of any number of submarines.

27. This can be done in as many places as desired and as often as may be necessary, whether the barrier is nets or mines; and it is because of this fundamental principle of a concentrated attack against a point of a necessarily dispersed force that no such barrier can ever be sufficiently effective to prevent the passage of all the submarines the enemy wished to send out.

28. This is the gist of the whole matter—the physical impossibility of a dispersed force successfully resisting a locally concentrated attack:

(a) Enemy cruiser of considerable gun power can make a hole in a patrol of a barrier.

(b) The patrol vessels must retire before such a force, thus permitting a section of mines or nets to be dragged out, and thus defeating the object of the barrier.

(c) It has, of course, been proposed to guard a barrier with heavy vessels. This is what Germany hopes Great Britain will do, thus exposing them to torpedo attack and permitting their policy of attrition to be carried out. The British vessels would also be exposed to similar attack, but the British can not successfully compete with Germany in torpedo warfare, particularly near the bases of the latter.

(d) I can not too strongly emphasize the fact that during nearly three years of actual warfare this whole question has been the most serious subject of consideration by the British Admiralty, and that many schemes of the nature of those in question have been thoroughly discussed, and those considered practicable—those which do not violate a fundamental principle—have been, or are now being, tried and extended; but the point is that no barrier can be completely effective and, unfortunately, a barrier or system of barriers, such as mines, etc., needs only to be slightly ineffective to permit continuous passage without much loss of submarines.

29. It is in view of the above and of the large amount of supporting evidence obtained that I have so urgently recommended that our primary military effort should be concentrated in getting the maximum number of antisubmarine craft of all descriptions into the enemy's mine area of activity.

Nets, barriers, and similar methods can never be entirely effective but only palliative. The submarine must always be opposed in its fields of action, and the most effective opposition discovered to date in number of antisubmarine craft. The difficulty at the present time is lack of such craft.

SUGGESTED THAT WE ABANDON MINING ACTIVITIES AND "CONCENTRATE ON OTHER WORK."

Though we had a very competent staff of experts, which developed mines and depth charges far superior to any then in existence, Admiral Sims did his best to discourage our mining activities. Despite the fact that, as he stated in his dispatch of April 16, he had sent us the drawings of the latest type of mine adopted by the Admiralty, and that our Bureau of Ordnance was developing a new and better type, Admiral Sims on May 31 sent a cablegram—I wish you would listen to this, gentlemen—which suggested that we give up the idea of providing mines in large quantities, and that it would be "more profitable" to "concentrate on other work." This dispatch was as follows:

With reference to my previous dispatches concerning our supplying mines, the British Admiralty have concentrated on mine construction to such an extent that they now expect the output by August will reach 10,000 a month. Their maximum facilities for laying mines are about 7,000 a month. From their previous experience with mines, similar to those which we now have on hand, they consider it unwise to attempt to utilize our present available supply. In view of above, and as our

output of a different type of mine would not be available in sufficient time, they now consider we can more profitably concentrate on other work.

In other words, he advised us to quit work on the only great new thing of the war in the Navy, and do something else.

We had no idea of abandoning our mine-production activities, which we knew were, and later proved to be, of the highest importance, excelling both in designs and quantity the production of any other country.

We knew no European government had succeeded in producing anything like all the mines it could use, and that many thousands more were needed, and Sims was informed on June 23 that we would soon be in a position to manufacture either the British mine or a superior type at the rate of 4,000 a week. The dispatch I sent him follows:

The Bureau of Ordnance is now in a position to manufacture latest type of Admiralty mine, or a superior type, at the rate of 4,000 per week, beginning 60 days from now. Is it the opinion of the Admiralty that possible future improvements make it desirable that we construct a surplus supply for possible use in European waters; if so, how many do they suggest we ought to manufacture? Would the Admiralty like to have us manufacture nets for use over there? If so, send details at once. Has a mine, not effective against surface craft, but effect against submarines, ever been under consideration? Are there any plans of future contemplated operations that we could be supplied with?

CONCLUDED THEN THAT MINES WE COULD FURNISH WOULD BE
"INVALUABLE."

Since sending his dispatch of May 31, suggesting that we "concentrate on other work," Sims seems to have a change of mind. He suddenly discovered that our Bureau of Ordnance could render "invaluable" assistance to the British in producing mines and depth charges. After waiting two weeks he sent the following reply to my dispatch, which he had received June 23:

Sent: July 7, 1917.

To: Secretary of the Navy.

Through: Admiralty.

Via: Naval attaché, Washington.

Number 84. Replying your number 31, all assistance which Bureau of Ordnance can render in manufacture of efficient type of mines and depth charges will be invaluable. British output at present in excess of available ships to handle, but numbers ships being increased. Can we furnish mine layers as well as mines? Admiralty experience now indicates necessity for abandoning entirely the Elia lever type in favor of the German horn type, with horns on bottom as well as on top. Also necessity for increased buoyancy to oppose tides. Latest type will have 500-pound buoyancy, and 1,300-pound anchorage. For mining against submarines, they are now using fixed instead of automatic depth anchorage, as one floating mine or mine near surface discloses an entire field. Many designs of mines effective against submarines, but ineffective against surface craft, have been considered, but no satisfactory type developed to date. Admiralty would appreciate information if such a mine has been developed. Drawings of latest British mine of horn type forwarded 28th June. Nets, moorings, and wire gear generally are available, to the extent to which they can be used, and it is urgently necessary to reduce demands on shipping. Brazil is asking England for nets. Can we meet her demands? Delay in answering this cable due to impossibility of keeping up the the work here with present staff.

Admiral Sims followed this up a week later in his letter of July 14, with the following regarding the mine situation:

Mines: There seems to have been a misunderstanding, probably owing to the inadequacy of cable communication, concerning our cooperation as regards mines. The responsibility concerning such a misunderstanding, if it has occurred, should be mine, as it was probably due to lack of time on my part to follow all of the subjects which affect the cause, and to clearly set them before the department.

There is, of course, an urgent need of mines and, as I originally stated in a cable, too many could hardly be available.

Up to the present, however, the British output of mines has been equal to, or in excess of, their facilities for laying them.

An attempt is now being made to impress certain auxiliary vessels into service for this duty.

Great difficulty has also been experienced, due to the stress of other important war requirements, to obtain a mine of satisfactory design to meet the unusual conditions which have developed.

Serious troubles developed from the beginning with the Vickers Elia type, and as all British mine manufacturing facilities were equipped to build the Elia mine, it was very difficult to alter the design, as experience from time to time indicated to be necessary and to change the methods of manufacture which were thereby imposed.

It has now been decided to abandon this type of mine entirely, in favor of a mine of the type used by the enemy, modified in accordance with British experience.

In fact, the drawings of this type of mine, which are now in the department, do not cover the latest developments which have occurred since they were prepared.

The mine question is a very serious one and our cooperation can only be efficiently directed by having an expert representative of the Bureau of Ordnance here at all times.

At the present moment the enemy is making determined efforts to sweep numerous channels through the mine fields in Heligoland Bight. The extent of the mine fields renders offensive operations against the enemy mine sweepers very difficult, particularly as they are aided by Zeppelin scouts.

In addition, mining activities are going on in other areas, particularly the Belgian coast at the western end of the allied lines.

Recent evidence has indicated preparations on the part of the enemy to attempt a landing to the south of the allied lines, apparently with a view to outflanking, and as a result new mine fields are being laid by the British in that area.

KEPT WORKING ON PLANS FOR BARRAGE.

The British Admiralty, whose approval was necessary, had rejected the proposition, Sims had urged scores of objections to it; but the department did not abandon the idea, and the Bureau of Ordnance continued its work in developing some plan that might prove acceptable to the Admiralty.

Though the North Sea mine barrage could have been constructed, as Admiral Strauss told you, with the types of mines in existence when the plan was proposed and Sims and the British had never based their opposition on the ground that an entirely new type was necessary, our ordnance officers were working from April on to develop a new type especially adapted for the purpose.

I may say here that in his testimony Admiral Strauss stated that the British, who laid about one-fifth of the mines, did not use the new mines at all, but used the horn mine, showing that it could have been laid with the type of mine we had in April.

The CHAIRMAN. But it would have taken more mines?

Secretary DANIELS. Yes; it would have taken more mines. We could have provided them.

On July 18, the Bureau of Ordnance, in a letter to the Chief of Operations, announced the development of a new type of mine firing gear, especially suitable for mines for a North Sea barrage.

BARRAGE PLANS AGAIN SUBMITTED.

On July 30 the bureau addressed another communication to the Chief of Naval Operations, giving more complete information regarding the new mine and renewing the proposal of an American-British joint offensive in the form of a northern barrage. This was entitled "Proposed British-American joint offensive operations; submarine barriers; Mark VI mines." That document, which will be presented in full elsewhere, was notably comprehensive and

contained all the essential features of the mine-barrage plan as it was eventually adopted and carried into effect.

MAYO, GIVEN FULL INFORMATION, PRESENTED PLAN TO THE ADMIRALTY.

The determined opposition of Sims and his hostility toward the project compelled us to take other means to present it fairly to the British authorities, and Admiral Mayo was given full information and was directed to present the matter to the British Admiralty and the Allied Naval Conference, which he was to attend in London, and to urge its adoption. We were perfectly willing to accept any modification of the plan which the British might propose and which would not too greatly impair the efficiency of the barrage. We were not disposed to haggle over details or to insist upon our views in all particulars. Our sole object was to get a mine barrage laid across the North Sea, and we were sure we could do it and make it a success; and history shows that we were right in April, 1916.

The CHAIRMAN. Do you mean that we stretched a mine barrage across the North Sea?

Secretary DANIELS. That we did?

The CHAIRMAN. Yes.

Secretary DANIELS. Admiral Strauss's testimony is adequate to that point.

The CHAIRMAN. I do not think it says we did.

Secretary DANIELS. Just before his departure Admiral Mayo conferred with Rear Admiral Ralph Earle, Chief of the Bureau of Ordnance, and officers of the mine section regarding the new mine and its value for the proposed barrage, and he was furnished with a memorandum that gave, in complete detail, plans for the northern mine barrage which were essentially the same as were finally adopted.

ASKED THAT BRITISH OFFICER BE SENT TO TEST NEW MINE.

Sims, in his dispatch, of May 31, advising us that we could "more profitably concentrate on other work" than mine manufacture, stated as one of the reasons that "our output of a different type of mine would not be available in sufficient time." If we had adopted his idea, the new type would never have been developed. But it was developed, and various tests indicated that, for deep-sea mining, it was far in advance of anything before produced. To pave the way for Admiral Mayo's renewal of the proposition for the barrage and our further effort to convince the Admiralty that the project was entirely feasible, on August 17 a cablegram was sent to Admiral Sims regarding the new mine developed by the Bureau of Ordnance, and requesting that the Admiralty send an officer to America to inspect and thoroughly test it, so that they would be assured of its efficiency. Following is that dispatch:

AUGUST 17, 1917.

Vice Admiral Sims:

Opnav. 187. Bureauord has developed a mine which it hopes may have decisive influence upon operations against submarines. Utmost secrecy considered necessary. Request that an officer representing the Admiralty clothed with powers to decide be sent here to inspect and thoroughly test mine and, if found satisfactory, arrange for cooperation in mining operations. 20017.

SECNAV.

(At 11.55 a. m. the subcommittee adjourned until to-morrow, Wednesday, May 12, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

WEDNESDAY, MAY 12, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

The CHAIRMAN. The committee will come to order. Secretary Daniels, will you proceed?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

SECRETARY DANIELS. Mr. Chairman, when the committee adjourned yesterday, I was in the midst of the statement about the North Sea barrage, the great outstanding work of construction of the Navy in the World War.

The northern mine barrage project was taken up at the allied naval conference in London September 4-5, 1917, which was attended by Admiral Mayo. The British Admiralty history in reference to the proceedings states that "Admiral Jellicoe put forward the suggestion of laying an efficient barrage so as to completely shut in the North Sea." But it also shows that he did not think it would have much more result than the existing British policy unless a better mine could be used and produced in sufficient numbers. In that event the matter would be different.

That Sims was still opposing the project and casting doubt upon its practicability is shown by the account of the proceedings, which quotes Admiral Sims as saying:

It must be successful completely or it is not successful at all. Either the barrage is successful absolutely or it fails absolutely.

Sir Eric Geddes, first lord of the admiralty, said;

I do not understand from the remarks of the first sea lord (Admiral Jellicoe) that the barrage should take the place of other offensive measures. It is not considered that the barrage can be sufficiently relied upon to take the place entirely of other measures for hunting and destroying submarines.

This indicated that Sir Eric Geddes looked upon the plan with some favor, and was not inclined to accept Sims's view.

STILL IN DOUBT AFTER NAVAL CONFERENCE.

Admiral Mayo, in his report of the conference, cabling to the Chief of Naval Operations September 6, said:

Conference completed after agreement upon the following points:

1. That close offensive in German waters should be carefully considered by Allies, after which they should indicate to British Admiralty contribution of old warships they are prepared to furnish should offensive prove practicable.

2. That alternative offensive employing effective mine field or mine net barrage to completely shut in North Sea not practicable until adequate supply satisfactory type mines assured and that pending such supply extension present system mine fields desirable and that mine net barrage impracticable.

As this indicated that the British still considered the barrage impracticable unless an adequate supply of mines of a satisfactory type was assured, and that they were still doubtful of the efficacy of the mine we had designed and perhaps of our ability to produce the large numbers required, it was evident that further urging was needed to secure the approval of the project.

Admiral Benson, therefore, on September 12, sent the following dispatch to Admiral Mayo:

From: Chief of Naval Operations.

To: Commander in Chief Atlantic Fleet.

OPNAV. 407. There are great possibilities in the satisfactory solution of the mine and depth charge question. Officers sent over here most satisfactory and remarkably well posted. I think it would help the whole situation wonderfully if Commodore Gaunt could visit the Admiralty for a few days and have a heart to heart talk. No time to be lost.

BENSON.

He said that no time was to be lost. So that there you see Benson is telegraphing in the usual method of the Navy Department, boldness and audacity, and no time to be lost; and yet we had lost five months then.

Admiral Sims states, in his testimony:

On September 13 Admiral Mayo received a message from Admiral Benson emphasizing the great possibilities of the new mine, stating that the British officers sent over to the United States to examine it had found it most satisfactory, and urging that immediate action be taken. The result was a proposal by the Admiralty—

Now listen to this, gentlemen:

The result was a proposal by the Admiralty of a definite scheme for the northern mine barrage.

On April 13 the Navy Department had proposed the mine barrage, and on September 13 Sims says the Admiralty proposed it.

On September 14, the day after Admiral Benson's dispatch was received, the Admiralty plans division made out for Admiral Mayo a paper entitled "General future policy, including mine policy," with an appendix, "Mine barrage across the North Sea," which contained the following concerning the barrage project:

The enemy submarine campaign now dominates and overshadows every other consideration, and any increase in the present rate of sinking might bring about an unsatisfactory peace.

It therefore appears that our future policy must be directed toward a more concentrated and effective control in the areas between the enemy's ports and our trade routes.

Some form of barrage corresponding to that which was formerly established by the Battle Fleet * * * must be reconstituted in such a form that the enemy submarine can not venture into it without considerable risk to themselves.

The very thing we proposed in April, 1917, and in September they begin to see the light.

Details for the requirements for a barrage across the North Sea were set forth in an appendix. The Admiralty "History of northern barrage" states that—

as a result of this paper, it was decided to proceed with preparations for laying a barrage on the Aberdeen-Norway line.

Both Sims's testimony and the Admiralty aistory show that it was only after we urged and insisted that immediate action be taken and gave them the utmost assurance that the new American mine was satisfactory and adapted to the purpose that the British were induced to take any definite action.

While Sims calls that memorumdam "a proposal" and by this tries to convince you that the mine barrage was proposed by the British and while the appendix went into considerable detail concerning the requirements for such a barrage, this paper was really only a tentative acceptance of the general plan we had been urging since April.

BENSON TRIES TO CLEAR UP DOUBT.

The Admiralty had not even then definitely approved the barrage plan, and their dispatches regarding mines left us in such doubt that on September 15, Admiral Benson sent the following dispatch to Admiral Sims:

Vice Admiral Sims:

Opnav 438, department advised by Commodore Gaunt "Admiralty instructs me to inform you that the United States offer of the mines is gratefully accepted."

Inform the department if the above refers to Admiralty approval of combining joint operations as indicated by Mayo or merely furnishing a large number of mines by this Government? If the latter, approximately how many are required?

OPNAV.

STILL "INVESTIGATING" IN OCTOBER.

That in October the Admiralty was still considering the matter and had not yet made a definite decision will be seen from this letter from Admiral Sims to the Secretary of the Navy (general report) October 9, 1917. We urged it on April 13, and this was October 9' Reading:]

14. Mining:

It is understood that the general questions of future plans as regards mining particularly in the North Sea will be taken up with the Commander in Chief, Admiral Mayo, upon his return.

The Admiralty is thoroughly investigating this question with a view to expediting such detailed plans as may later be drawn up in cooperation with the Navy Department.

It is understood from discussions with officials in the Admiralty that the general plan proposed will involve very extensive shore work such as established ofmfts depots for assembly, tests, and so forth. Also that this will probably require sending over from the United States comparatively large personnel force for these shore stations.

The detailed discussions of these questions will probably be postponed by the Admiralty until the return of the commander in chief.

Now listen, gentlemen, here is what Admiral Sims recommends. We have been compelled to send Admiral Mayo over to present the department's views, and to get consideration; and yet now, after Admiral Sims for six months had said that it was impracticable and unfeasible, he then wishes us to communicate only through him, when we had to go over him to get action. [Continuing reading:]

It is recommended that the force commander—

That is himself—

be used as the channel of communication with the Admiralty in all matters concerning this subject, as such a course will be conducive to avoiding misunderstandings and misinterpretations. If some communications or cablegrams pass direct to and from the Admiralty through its representative in Washington to the department, and

others through this office, the chance of confusion and misunderstanding will be considerable, as it has been apparently in the past.

The Navy Department went ahead with its preparations, being convinced that the barrage plan must be eventually approved, and that any disagreements or modifications could surely be adjusted by the two Navies. Upon the return of Admiral Mayo to the United States a conference was held on the subject in the office of the Chief of Naval Operations on October 15, and the project, as amended by the British, was considered and approved by the General Board.

NOTIFIED OF ADMIRALTY'S APPROVAL OCTOBER 23, 1917.

On October 17 the Chief of Naval Operations received a dispatch from the British Chief of Naval Staff, asking when supply of mines and sinkers would begin. This apparently indicated that the Admiralty had approved the project, yet we had not been so notified. On October 20 Admiral Benson cabled to Admiral Sims:

OCTOBER 20, 1917.

VICE ADMIRAL SIMS:

Opnav. 780. The department requests to be informed whether the plan for the placing of a mine barrier across the North Sea on the Aberdeen-Egersund line has the approval of the Admiralty. It is believed that the great experience of the British naval forces in North Sea operations and their experience in naval mining during the present war puts them in the best position to decide whether the proposed scheme is practicable in construction and maintenance and whether, in the opinion of the Admiralty, it is the best scheme in sight for limiting the operations of enemy submarines provided that the Straits of Dover can be efficiently closed to the passage of submarines which, if possible, in the opinion of the department should be done at the earliest possible date.

OPNAV.

The following reply was received by the department October 23:

OCTOBER 22, 1917.

From: Admiralty C. N. S.

To: Commodore Gaunt, Washington, for Chief of Naval Operations.

Your 780 to Admiral Sims. Admiralty has approved mine barrier and now confirms approval.

This is the 22d of October, six months and eight days after we approved it—time that was of the essence lost. [Continuing reading:]

Preparations proceeding rapidly. Assistance desired from U. S. A. as indicated in my telegram No. 513 of 17th October. Admiralty consider this is best scheme to be carried out at a distance from enemy bases. Admiralty is working on supplementary scheme for operations closer inshore, but any such inshore has defect that enemy can eventually clear a passage through for submarines.

Mr. Chairman, I want to call attention to that paragraph, because I shall later show you that the British never did close the inshore places in the barrage, as we desired, and that that was the only error of the scheme as carried out. [Continuing reading:]

Therefore North Sea barrage also necessary. No scheme yet tried has effectively closed Dover Straits to submarines—

This was six months after we urged it—

but measures are being constantly deterrent. Extensive mining operations in Dover Straits against submarines commence in November. Hitherto delayed from lack of effective antisubmarine mine.

CONTRACT HAD BEEN LET FOR 100,000 MINES.

The cablegram of October 20, which Admiral Sims read to you in part, was a reply to numerous specific requests made by Great Britain in a memorandum given Admiral Mayo while he was in England. The portion relative to the mine-barrage is as follows:

6. Contract has been let for 100,000 mines of American type. The United States has offered to commandeer for the British Admiralty three vessels suitable for mine-laying, and in addition can probably commandeer two or three more vessels suitable for mine-laying to be manned by the United States for employment in cooperation with British mine-laying forces in any joint plan which may finally be agreed upon.

7. Question of the proposed mine-barrage from Scotland to Norway as presented to the Navy Department is not definitely concurred in, but careful consideration is being given to this particular subject with a view of arriving at definite conclusions in regard to the employment of the mine-barrage, which measure is considered in principle to promise good results.

The following matters were not included in the memorandum referred to, but were specifically in connection therewith.

8. It is considered the American type mine is perfectly safe and inoperative upon breaking away from its moorings.

9. The standard British Admiralty type of sinker can be used with the American type mine.

As this and the preceding dispatch of the same date show, the Navy Department had not been notified that the Admiralty had approved the project and was giving careful consideration to certain modifications in the plan which had been suggested by the British and which we feared might seriously impair the efficiency of the barrage. We were expediting the preparation of material and had already let the contract for the entire 100,000 mines that would be required.

AMENDED PLAN FINALLY ACCEPTED.

The dispatch from Sims, indicating that the British Admiralty had made a definite decision, was received in the department on October 23. Though we did not consider that the amended plan was as good as our own, as the British proposal lessened its efficiency, we were so glad to get, finally—and I use the word “finally”; it had been from April 16 to October 23, six months of precious time wasted—a decision from the Admiralty that, in order to avoid delay we interposed no objections. Within a week we had worked out all the details involved in the amended plan, and on October 29 I approved the project as outlined. It was favorably acted upon by the President, who had from the first earnestly desired its adoption, at a Cabinet meeting on October 30, and the Chief of Naval Operations cabled to the Admiralty:

Department concurs in project for mine barriers Scotland to Norway and has already taken steps to fit out eight such mine-planters to sail February 1. Expect to begin shipment of mines January 15. Will send officers to confer and arrange details in a few days.

SIX MONTHS DELAY IN GETTING PROJECT APPROVED.

As will be seen, gentlemen, it was six months after we had proposed the laying of this barrage before it was definitely and finally approved by the Admiralty. There is every reason to believe that if Admiral Sims had favorably presented the proposition to the British authorities, and had urged the view of the Navy Department

instead of airing his own personal opposition, it would have been accepted by the Admiralty months earlier. But Sims, as his dispatches and letters show, not only did not urge any plan of shutting in the enemy submarines but continually opposed it, not only using every effort to convince the Navy Department that it was impracticable and "unfeasible", but argued against it in conferences with British officials who were inclined to give it favorable consideration. In his letter of April 19, 1917, he states that the Prime Minister believed that some such scheme was possible, and Sims describes how he argued with Lloyd-George to convince him that any such plan was entirely impracticable. The evidence shows that no small part of the delay in the adoption of the barrage scheme was due to Sims.

NEVER BASED HIS OPPOSITION ON TYPE OF MINE.

In all the various and strongly expressed reasons he gave in all his dispatches, communications, and arguments from the time the barrage was proposed in April, 1917—now, I wish to emphasize this—Admiral Sims never once based his opposition on the type of mines. He declared that all plans for closing the North Sea were impracticable, and that the British had tried out various types of mine barriers and none had proved successful. Yet in his testimony Admiral Sims declared:

The thing which made possible the northern barrage was the use of a certain type of mine known as the antennæ mine, because of its technical features, which had not been invented at the time this dispatch was sent to the department.

He was referring to his dispatch of May 14, in which he said that no barrages, either of mines or nets, were effective, and that—

bitter and expensive experience had forced the abandonment of any serious attempts at blockading such passage as Scotland to Norway.

That was the very thing we did, and did successfully.

Admiral Sims also told you that —

with the invention in the United States of a new type of mine, the project was put in an entirely new light and it merited further consideration.

Is it not clear from his dispatches and letters that all this talk about a new type is an afterthought with him? Without any reference to any particular type, he opposed the whole project for months. Our mine was superior, but an effective barrage could have been laid in the early part of 1917, as we proposed, of the type of mine then in use.

The British, who laid 20 per cent of the barrage, used this old type of mine. They never did use the antennæ mine, which was superior. But their mine was a good mine, although not as good as ours.

Admiral Strauss told you that the laying of the barrage was not only not entirely dependent upon the antennæ mine, but that none of the mines laid by the British in their part of the barrage were of this type. The following is quoted from his testimony:

The CHAIRMAN. Would it have been feasible to lay any barrage without the antennæ mines that were last discovered?

Admiral STRAUSS. Oh, yes; perfectly feasible. The British shared in this barrage, and they had no antennæ mines. Their mines are not antennæ mines.

The CHAIRMAN. Would it have been feasible for us to have sent over a sufficient number of the other, the old fashioned, mines, which as you have already stated required at least three to one of the antennæ mines, to have constructed this barrage?

Admiral STRAUSS. For a barrage equal to the one we laid, it would have taken about 180,000 mines.

The CHAIRMAN. About 180,000 mines?

Admiral STRAUSS. And we actually sent over 80,000.

The CHAIRMAN. And a considerable number of ships to take them over, would it not?

Admiral STRAUSS. Well, we kept a certain number busy going back and forth. We got 64 cargoes in all, but most of them were repeats—the same ship. We ran a sort of line of mines from the United States to the coast of Scotland.

The CHAIRMAN. And you think it would have been feasible to have gone ahead with the other barrage?

Admiral STRAUSS. Yes.

ORDNANCE READY TO BEGIN WORK EARLY IN 1917.

The Bureau of Ordnance was ready to proceed with the undertaking in April, 1917, using types of mines then existing, making improvements in design to suit conditions. Now, listen to this, gentlemen, to show the degree of confidence that the Bureau of Ordnance had and the ability that they showed. There never was a department in the world that functioned better than had the bureau organization of the Bureau of Ordnance, from the beginning of the war. The bureau proposed to begin manufacture on a huge scale, and estimated that, even if a million mines were required by utilizing the capacity of a considerable number of large factories they could be produced in 50 days. Urging the necessity of a prompt definition of policy, the bureau set forth the magnitude of the undertaking and said:

If an immediate decision—April 1917—should be made the proposed barrier could not be put into effect inside of six months.

Showing the necessity of immediate action, because it took time.

Though the plan as finally adopted necessitated the manufacture of 100,000 mines of an entirely new type, requiring special designs and apparatus, the bureau's work in manufacturing and assembling the material was practically completed in six months.

It was six months from the time the Navy Department proposed the scheme before it was accepted by the British Admiralty. But this is not by any means all the delay that was caused by the Admiralty's hesitation and Sims's opposition. Mine laying in the stormy North Sea is very difficult, almost impracticable, in winter weather. The whole summer and autumn of 1917 was lost to us, and mine laying on a large scale did not begin until the late spring of 1918.

BARRAGE COULD HAVE BEEN LAID IN HALF THE TIME, ADMIRAL STRAUSS SAYS.

It was not until June 8, 1918, that the American vessels began laying mines. They planted 3,385 mines on that first trip.

I would like you, gentlemen, to listen to this very carefully. This is the very meat of it.

Admiral Strauss told you that if he had had American destroyers under his command to escort the mine layers, and had been permitted to issue his own routing orders, the barrage could have been laid in half the time. He told you that it took three weeks to get the Admiralty to rescind Admiral Beatty's order not to place any mines west of the meridian of Greenwich, which would have left a gap in the barrage of 70 miles. He told you of the long delays caused by the

mine force waiting for British escort vessels and routing orders. The following is quoted from his testimony:

The CHAIRMAN. And you think it would have been better to have kept the American mining force as a completely separate force under a separate command?

Admiral STRAUSS. I think it would have been better. I would have preferred to have operated with my own force of destroyers as a screen, and the battleship squadron that we had out there as a protection, because we lost half of our time in waiting for orders from Admiral Beatty. We expended just one-half of the time we were in the North Sea waiting for this unity of command.

The CHAIRMAN. What would have been the effect so far as protection of the mine force by the Grand Fleet was concerned?

Admiral STRAUSS. It would have been all right if we had had a fleet of destroyers and what we called the Sixth Battleship Squadron, Admiral Rodman's battle squadron, to protect us in our operations. We could have done the work in half the time.

That is the statement of the admiral who carried out this great constructive work, by all odds the greatest naval operation of the war except carrying the troops to France, which, of course, was the overshadowing and great contribution.

MINE BARRAGE WAS NOT A "DELUSIVE FALLACY."

In concluding his long statement regarding the mine barrage, Admiral Sims says:

The idea of making a grand stroke which would at one fell swoop reduce the enemy to confusion and force him to surrender, has been throughout history one of those fascinating and delusive fallacies which have cost many a defeat.

But the mine barrage was not a "delusive fallacy." The fallacy was on the part of Sims, who denounced the project as impracticable, vigorously opposed it, and had no small part in preventing its adoption for months. Admiral Sims cited the proposals we made for the barrage as an example of the Navy Department's insistence "upon a number of plans that could not be carried out," which is one of the charges he made in his letter of January 7. But this plan was carried out in 1918, and would have been put into effect in 1917 had not Sims and the Admiralty so strongly opposed its adoption. And it was not merely a "useful supplementary measure," but was the most effective antisubmarine measure that could possibly have been adopted.

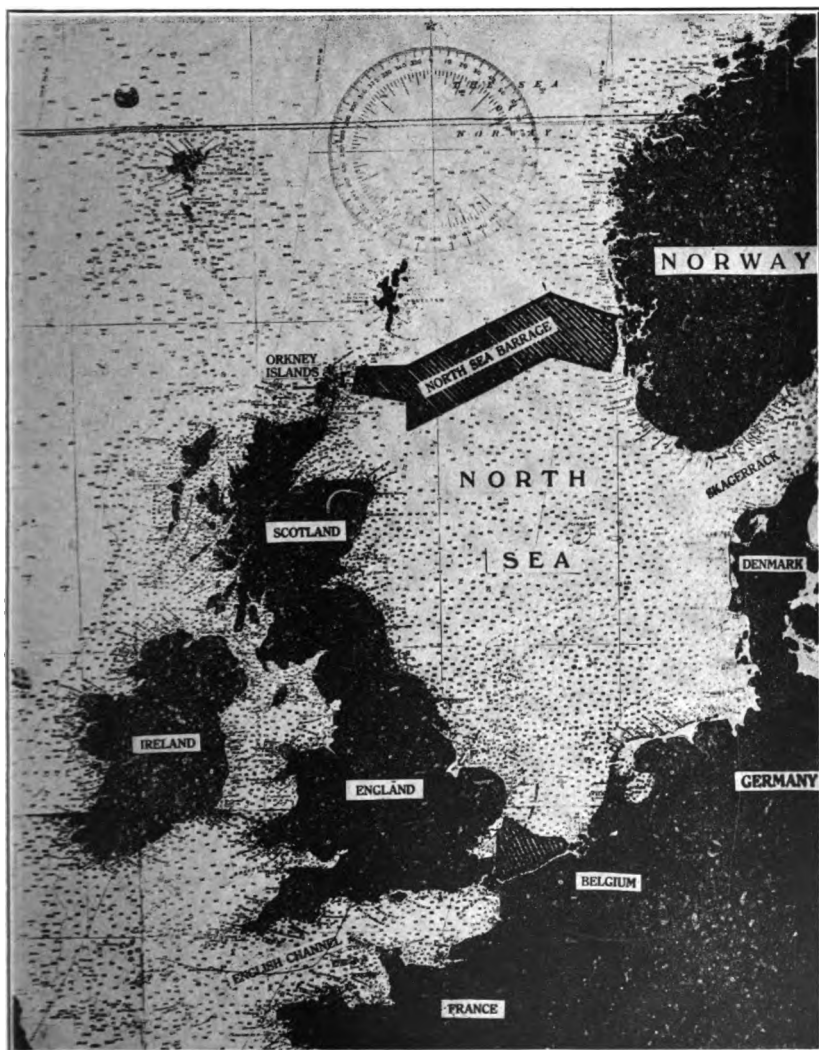
Sims himself says, after its completion and success, that "No such project has ever been carried out more successfully," and that "as an achievement it stands as one of the wonders of the war."

The North Sea mine barrage was proposed by the Navy Department six months before it was approved by the British Admiralty. Eighty per cent of it was American mines laid by United States naval vessels; we manufactured 100,000 mines, transported 80,000 over 3,400 miles; and planted 56,611 of the 70,000 mines laid. In view of the facts, Sims' attempt to deprive the United States Navy of full credit for this project is as futile as are his attempts to explain away his own opposition to the barrage.

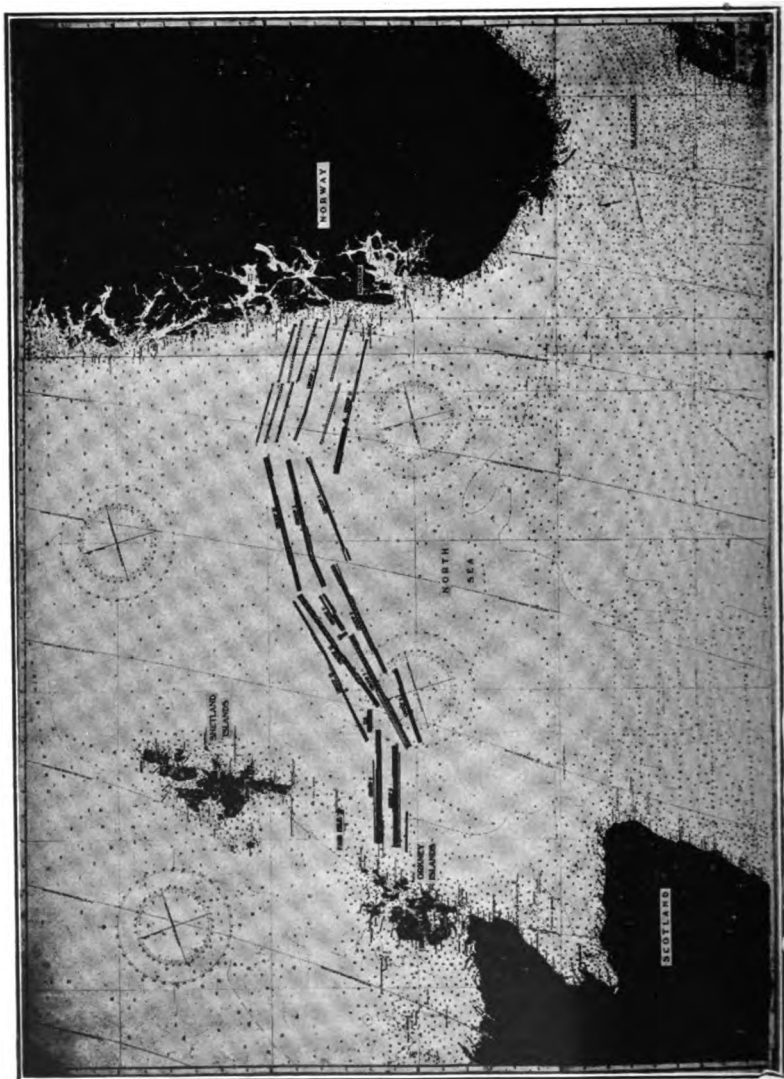
Mr. CHAIRMAN. I wish to put in the record a map of the mine barrage, showing how it was laid, and to put under the map an explanation of it.

The CHAIRMAN. Very well.

Secretary DANIELS. And I also wish to put in another map that is another illustration. This map shows that a mine barrage was laid within 10 miles of the Orkney Islands, and entirely to the island



174273-20. (To follow page 2047.) No. 1.



174273- 20. (To follow page 2047.) No. 2.

of Utsire, on the Norway coast, and the people of Norway mined all around that island; so that on the Norway side a submarine could not get through. On the Orkney Islands side the plan of the British was to patrol that base, that 10 miles, in order to keep any submarine from passing. I shall add some explanations to this map, with your permission.

(The maps above referred to are printed herewith.)

Secretary DANIELS. I said just now, Mr. Chairman, that in all the history of preparation for war in any country in the world nothing exceeded the work of the Bureau of Ordnance of the Navy Department from March 5, 1913, to this very minute. That department was under the control in 1913 of Admiral Twining. He was succeeded by Admiral Strauss and he was succeeded by Admiral Earle. I shall only present what the Bureau of Ordnance did in preparation for war and in actual work for war from the time Admiral Earle came into office, which was December 23, 1916. I will not read this, Mr. Chairman. It shows what the Ordnance Bureau did. I will just offer it for the record.

The CHAIRMAN. Yes.

(The document referred to is here printed in full in the record, as follows:)

GENERAL SUMMARY OF WAR ACTIVITIES, 1917 TO 1918.

(Statement prepared for use before the Senate Investigating Committee.)

NAVY DEPARTMENT,
BUREAU OF ORDNANCE,
Washington, D. C., April 26, 1920.

1. On December 23, 1916, Commander Ralph Earle, United States Navy, then on duty as inspector of ordnance in charge, Naval Proving Ground, Indianhead, Md., relieved Rear Admiral Joseph Strauss, United States Navy, as Chief of the Bureau of Ordnance, holding this post until May 1920.,

2. Under date of May 28, 1915, an order was prepared by the Chief of Naval Operations and signed by the Secretary, forwarding report of the General Board, No. 425, directing compliance of the Bureau of Ordnance with requirements of a letter from the General Board, dated March 13, 1915, which requirements were that each office and bureau be furnished with part of the plan for preparation of war, in so far as pertained to its own duties, and that it be directed to report, not later than one month and thereafter at the end of each calendar quarter, the progress made in work of preparation and comments upon any defects in the plan which might make its execution impracticable or that seemed to be cumbersome. This started the method of quarterly reports of preparedness to the department and made known to the bureaus' requirements in concrete form.

3. The first actual operations undertaken by the bureau with success, looking toward an eventual state of war, were included in the appropriation act of August 29, 1916, wherein an allotment of money was made for batteries for merchant auxiliaries, for reserve ordnance supplies, and for ammunition for ships of the Navy.

4. The bureau, under date of July 10, 1916, anticipating the passage of the act referred to, advertised for a total of 943,429 projectiles of all calibers.

5. The early days of February found the bureau requesting additional funds for probable undertakings. On February 3 the bureau requested the Chief of Naval Operations to secure immediate availability of the funds incorporated in the naval appropriation bill then before the Senate. The 5th of February the bureau submitted additional items for the appropriation bill, and on February 7 secured \$15,000,000 additional for ordnance. On February 22 the need for these funds was explained to the committees of Congress, and the funds as desired were appropriated in the act approved March 4, 1917.

6. The letter of the department approving the war plans of March 13, 1915, pointed out the steps to be taken by the department before the war—the mobilization of the blue forces in the Atlantic and the assignment of public vessels to naval districts and local defense, together with the composition of the A, B, and C fleets. The assignment of guns to auxiliaries was included in these plans, so on February 3 the necessary shipment orders for such batteries were made.

7. On the afternoon of February 3, 1917, when word was received that diplomatic relations with Germany had been broken, the Navy Department directed that the batteries held in reserve for assignment to merchantmen and auxiliaries be shipped to the fitting-out yards of the vessels concerned. The necessary shipment orders—some 60—were gotten out by the Bureau of Ordnance on the afternoon of that day.

8. On March 12, 1917, the President notified all foreign Governments of his intention to arm merchantmen whose voyages took them into seas infested by German submarines.

9. The Secretary of the Navy and Admiral Benson, Chief of Naval Operations, directed the Bureau of Ordnance to proceed as expeditiously as possible with the arming of these merchantmen. The Secretary, on March 13, 1917, issued regulations governing the conduct of armed American merchant vessels. The Secretary approved the plan of obtaining the guns required, in addition to those held in reserve batteries for that purpose prior to the war, by removing certain guns from vessels of the fleet in cases where they could be properly spared in view of the necessity of quickly arming the vessels involved.

10. The Secretary of the Navy authorized the bureau to proceed at full speed to make contracts for guns and mounts, and, during March, April, and May, the following firms, who had never made ordnance material of any kind, were induced to start the manufacture of guns, forgings, and mounts:

Root & Van Dervoort, East Moline, Ill.
 Poole Engineering Co., Woodberry (Baltimore), Md.
 American Radiator Co., Bayonne, N. J.
 Linderman Steel & Machine Co., Muskegon, Wis.
 Ohmer Fare Register Co., Dayton, Ohio.
 Mead-Morrison Manufacturing Co., Boston, Mass.
 Mason Machine Works, Taunton, Mass.

11. Among other early actions of the war was the Navy's effort to push the development of machine guns in the United States, so as to obtain at the earliest possible moment quantity production of such guns adapted to use American ammunition. This was especially the case with the Lewis gun, and it was due to the Navy that such a gun was produced by the Savage Arms Co. satisfactorily by April 18, 1917. Funds for the development of machine guns, under "Experiments, Ordnance," were available early in February, 1917, and contracts were given in that same month. The contracts for various machine guns used during the war were in large measure made by the 27th of April, 1917. One of the large later contracts was made on the 17th of September, 1917, but the capacity of the small-arm firms had been utilized to the utmost during the interim.

12. Many contracts were signed for various guns for merchantmen, new destroyers, sub chasers, and other patrol boats, through April to June, amounting to the following:

Guns.

	April.	May.	June.	Total.
6-inch.....	30			30
4-inch.....	150	1,000	1,000	2,150
3-inch.....	1,570	300	210	2,080
6-pounder.....	154			154
1-pounder.....	1,200			1,200
Machine guns.....	5,100		350	5,450
Total.....				11,064

Part of the 3-inch gun contracts included both guns and mounts; i. e., those for sub-chasers. 5-inch guns were being manufactured at the Naval Gun Factory at rate of some 10 per month, increasing later to 18.

Mounts.

	April.	May.	June.	Total.
6-inch.....		62		62
5-inch.....	105			105
4-inch.....	309	910		1,219
3-inch.....	200	1,170	42	1,412
6-pounder.....	154			154
Total.....				2,952

13. Between January 1 and June 30, 1917, the Navy had work proceeding and contracts made for guns, mounts, and machine guns amounting to the following totals:

Guns.....	6,034
Mounts.....	3,182
Machine guns.....	6,955

This involved about \$56,938,306.04. All of this work was undertaken under instructions and knowledge of the Secretary, although no funds were as yet available to pay for the same.

14. As indicative of the desire of the department to meet the new conditions arising in the war against submarines, it can point to the fact that the 110-foot sub. chasers were built only strong enough to carry the service 6-pounder gun, but the department wisely decided that this gun was not of sufficient caliber to make an impression on a submarine and, therefore, the Ordnance Bureau not only designed an entire new gun and mount of the 3-inch caliber for this purpose, but actually had such in production during April and May, 1917.

15. It had been demonstrated in 1916 that German submarines could operate successfully at such distances from their bases as to permit of their crossing the Atlantic and bringing their submarine warfare to our coasts. Defensive measures to guard against this contingency in advance of an actual declaration of war were, therefore, not overlooked. Immediately after the proclamation of the restricted submarine warfare, in the first week of February, 1917, wire rope was obtained from all possible sources in the country and issued to all naval districts and the Army, for use in the construction of net defenses against submarines at our important ports. Instructions as to the fabrication of such nets were issued from the bureau. In a short time the harbors of New York, Norfolk, and Newport were well protected by heavy nets laid across the harbor entrances.

16. The European war had shown that nets were a necessary protection against submarines, and the bureau had experimented with various types and placed contracts for one 4,500-foot net for final determination of type. The nets under consideration included towing and trap nets, and altogether the bureau had orders placed for some 126,112 feet of steel netting and had included an estimate for Congress for 100 miles of heavy net material and 200 towing nets.

17. On the afternoon of February 3 the bureau received notice that diplomatic relations with Germany had been severed. The bureau then issued orders to assemble the batteries set aside for merchantmen and to ship them in accordance with the war plans of the department, accessible in its safe. It also sent out orders to the ammunition depots and gun factory, torpedo stations and proving ground, to at once increase force, rush work, and to establish additional safeguards for manufacture of material.

18. On February 5, all the bureaus' chiefs requested a \$500,000,000 allotment, in order that there might be a minimum amount of delay in commencing manufacture of war material.

19. On February 9, the bureau sent a 3-inch battery to the torpedo station at Newport for its defense against any possible raiding by submarines. On March 31, eight 5-inch guns were shipped to the Virgin Islands, for the protection of those islands, which had recently been acquired by the United States. From time to time batteries were sent to outlying air stations of the Navy for their defense. On April 7, mobilization was ordered by the Navy Department and the Coast Guard was included in these orders, additional batteries and guns being furnished vessels of the Coast Guard Service where needed. On that date, we also secured orders from the War Department enabling the bureau to prescribe danger zone at Indian Head, so that proof firing could go on without interruption. On April 13, it was decided to rush work on the projectile plant, especially because of the fact that private manufacturers were not meeting success in manufacturing armor-piercing projectiles of the 14-inch caliber.

GUNS.

20. The greatest task facing the bureau, so far as guns were concerned, was that of turning out guns in time to equip destroyers and sub. chasers of the new building program, and at the same time equipping all the various patrol vessels, together with all the merchantmen that must be armed.

21. At the beginning of the war there were available—not actually mounted on board ship—319 guns of caliber from 3 to 6 inches; smaller than 3-inch there were but 314; and in the hands of the Naval Militia there were 57 guns of calibers from 3 to 6 inches.

There were several outstanding gun contracts of calibers suitable for arming merchantmen existing prior to 1917. There were contracts for:

67 4-inch guns, Bethlehem Steel Co. (No. 2536, dated Oct. 31, 1916).

100 4-inch guns, American & British Manufacturing Co. (No. 544, of Nov. 18, 1916).

146 5-inch guns, Bridgeport Projectile Co. (No. 607, dated Nov. 13, 1916).

Deliveries on these contracts were not realized, and the chief of bureau upon investigation early realized that deliveries on these would not be made in time to be of use to the Navy, and so did not hesitate to place contracts for guns with firms that could and would produce them in sufficient time. For example, on the 3d of May, 1917, he placed contract for 1,000 4-inch guns with the Root & Van Dervoort Engineering Co., East Moline, Ill., a concern entirely new to this type of manufacturing work, yet one that put its shoulder to the task and delivered material.

Of the contracts just mentioned as existing, there were but nine 4-inch guns delivered by the Bethlehem Steel Co. up to the 1st of April, 1918; two delivered by the American & British Manufacturing Co. up to that date, and no 5-inch delivered by the Bridgeport Projectile Co. at all. It was necessary to commandeer the plant of the latter concern and manufacture the guns there ourselves. Nine months is the shortest time in which, after an order is placed, a naval gun of caliber from 4 to 6 inches can be delivered.

22. The Bureau of Ordnance also had to meet calls from the Italian Navy for 5"/51 caliber guns in the critical days after Caporetta retreat; supply merchant vessels operating under the flags of the Allies, the French patrol and fishing vessels; all of these in addition to our own vessels, including also heavy turret guns for Great Britain's Navy.

23. Altogether the Bureau of Ordnance placed in service on merchantmen and delivered to the Allies a total of 4,843 guns, 2,050 of which were of calibers from 3 to 6 inches, inclusive. There were 1,742 vessels other than those of the Regular Navy; these, in themselves a large number, furnished with guns.

24. Special types of guns produced by the Navy during the war were the "Y-gun," invented, manufactured, and issued in quantity, and the 3"/23 gun, also newly designed for sub. chasers. Both these types of guns were new in every respect and were produced to meet a need that did not exist prior to the declaration of war. Then, also, there was produced a most superior antisubmarine weapon in the shape of the 8-inch howitzer.

25. Many difficulties, in production of guns and gun forgings, were overcome by the cooperation and assistance of the Navy Department. In this connection, as in everything to do with steel and gun production, the Bureau of Ordnance was materially helped by the production division of the War Industries Board, headed by Mr. S. M. Vauclain, of the Baldwin Locomotive Works. As one instance, the Navy Department took charge of a gun-forging plant, the output of which had been unsatisfactory and increased its output of satisfactory gun forgings, 300 per cent within the first two months of governmental, or rather naval, operation.

26. Rear Admiral Plunkett on March 26 made a statement somewhat as follows:

"In fact, I do not remember just when we conducted her firings, but we fired all of those 14-inch gun ships, the *Pennsylvania*, the *Oklahoma*, the *Arizona*, and the *Nevada*, in order to find out what caused the tremendous dispersion of our guns; and we have also conducted experiments ever since then—that was in 1916—and we are no nearer the answer to-day than we were then. One reason for it, I think, is due to the fact that when Congress practically offered us a proving ground to cost \$10,000,000, the Secretary only allowed \$1,000,000."

That Congress practically offered a proving ground to the Navy costing \$10,000,000 is certainly news to the Bureau of Ordnance and I feel sure that it will be so to all Members of Congress. So far was it from being a fact that it took strenuous efforts to obtain the \$1,900,000 actually allotted. It was hard to convince the House Committee on Naval Affairs that it was really necessary for the Navy to start new projects, and thus it was exceedingly difficult to convince this committee that the Navy really did need extended facilities for the proof of ordnance material.

27. As a matter of history, it is noted here that the proving ground at Indian Head, under the Bureau of Ordnance, was established there in 1891. It soon became entirely too small for the Navy's needs. The Navy looked ahead into the future, anticipated its needs, and for several years prior to 1911 did its best to secure extended facilities for the proof of ordnance material. Detailed plans were finally drawn up and submitted with estimates for 1912, but these were not received with favor, so that the Navy had to manufacture heavy ordnance without being able to test it properly. The officers of the Bureau of Ordnance continually endeavored to obtain appropriations for a proper proving ground. Effort to obtain a long land range was given up

after a search, when it was found that sufficient land for a 40,000-yard range, the minimum desired, could not be obtained for less than \$2,500,000. Congress was then asked for only a water range. Every effort was made to obtain an authorization but the bureau was not successful until April 26, 1918, when it obtained \$1,000,000 for establishing a project like that for which \$11,000,000 had been allotted to the Army. For the completion of the Navy's range at Dahlgren, Va., the Appropriation Committee later allowed \$900,000 additional, making a total available of \$1,900,000. Six hundred thousand dollars more will be required, however, before the completion of the project; and, it is expected confidently that such an amount will be readily granted by Congress, especially in view of the urgency and importance of the project. This range is being utilized now in the hopes that we may reduce the dispersion of our guns before they are all built, although it is not entirely satisfactory because of the small allowance of funds. Nevertheless it is true that we have a water range and a land range that is sufficient to recover, at the present time, the particular shell desired for examination after firing.

28. Despite every handicap, the result of our long-range firing on shore in France showed that our guns were remarkably accurate; and, further, that our fuzes functioned exceedingly well; in fact, they gave 100 per cent performance.

29. The records show that for ranges from 13,000 to 15,000 yards the dispersion as determined at the proving ground was not excessive for 12-inch, 14-inch, and 16-inch guns.

30. A table of these dispersions follows:

Dispersion results, Naval Proving Ground range, 13,000 to 15,000 yards, up to January, 1918.

	Number of shots.	Weight of shell.	Original of shell.	Dispersion.
		Pounds.		Yards.
12"/45 inc. twist.....	16	870	7	± 79
Do.....	3	700	5	± 44
Do.....	2	740	4	± 72
12"/50, inc. twist.....	19	870	7	± 81
Do.....	3	700	5	± 38
Do.....	3	740	4	± 98
12"/50 uniform twist.....	16	870	7	± 50
12"/50 inc. twist.....	16	870	7	± 74
14"/45.....	188	1,400	7	± 40
Do.....	18	1,400	7	± 40
Do.....	7	1,400	7	± 83
Do.....	5	1,400.5	10	± 22
16"/45.....	24	2,100	7	± 69

¹ A. P.

² Target.

³ Class B.

⁴ Midvale target.

31. It was only after attempts to fire at greater ranges were made that excessive dispersion was encountered, as is shown by the records of firing of the *Nevada*, *Oklahoma*, *Pennsylvania*, *Mississippi*, and *New Mexico*.

Ship.	Mean dispersion.	Range.	Remarks.
	Yards.	Yards.	
Nevada.....	301	17,600	Excessive.
Oklahoma.....	370	20,000	Do.
Pennsylvania.....	128	19,000	Very good.
Mississippi.....	650	21,000	Excessive.
Do.....	80	24,000	Excellent.
Do.....	250	28,000	Excessive.
New Mexico.....	280	18,000	Do.

32. From information obtained concerning British battleship target practice, it appears that their mean dispersion at 20,000 yards is about 115 yards.

33. As soon as it became apparent that ranges exceeding 15,000 yards would be used in battle, steps were taken to obtain a proving ground where long-range firing could be conducted.

34. In the meantime long-range firings have been conducted by various ships. It should be noted, however, that certain data necessary to the determination of the

causes of dispersion can not be obtained in ship firing; for example, muzzle velocities and jump card determination of the character of flight of projectile. Valuable interior ballistic data, however, have been obtained from these firings leading to improvement in ignition and loading.

35. Experiments have also been conducted with a view of determining a more satisfactory type and twist of rifling. Other experiments are under way looking to an improvement in form of rotating bands.

36. Our guns and powder appear to be fully equal or superior to any foreign guns and powder. There is every indication that improved flight of projectiles resulting from the before-mentioned experiments will make our dispersion compare most favorably with that of any foreign navy.

37. The steps taken by the bureau to see that a sufficient supply of projectiles was on hand for all calibers of guns proved satisfactory, and at no time was any real worry experienced, except in regard to the shells of 14-inch caliber. The condition in regard to shell of 14-inch caliber was that the shell rooms of all ships in commission carrying that caliber were filled, but, that there was not a reserve supply ready for issue in shell houses at ammunition depots.

38. Capt. H. Laning, appearing before the Senate committee on March 23, 1920, stated in part the anxiety concerning these contracts that was felt by the Bureau of Ordnance at that time. The records disclose the fact that at the time of the declaration of war the Bureau of Ordnance was greatly concerned over the question of the supply of 14-inch projectiles. There had been great difficulty on the part of manufacturers in meeting the severe specifications. This fact, together with industrial conditions and the necessity for providing additional facilities, brought about an impasse over the price to be paid under new contracts. Contract had been made in February, 1917, for such projectiles at \$500 each. The new price was \$592 each. The price finally agreed upon and embodied in new contracts dated June, 1917, was \$580 each, a reduction, due to negotiations, of \$12 per projectile. Twenty-two thousand one hundred projectiles were ordered at this price, showing a saving of \$265,200.

39. In the meantime, no delay in production occurred, as the Secretary had directed the manufacturers to go ahead and that a price adjustment would be made effective as early as possible. One lot of 14-inch arrow-point projectiles which under the contract was required to be delivered in February, 1918, was actually delivered in June, 1917, and further deliveries were made so that by October, 1917, projectiles were being delivered which were not due for delivery under the contract until September, 1918. Thereafter no further concern was experienced regarding this case of war necessity.

40. Under date of July 7, 1917, the Chief of the Bureau of Ordnance reported in regard to the supply of this caliber of projectiles that deliveries had then been made and progress of manufacture "has removed a great anxiety felt by the bureau as to providing such shell."

41. Of course, all in the department realized that this projectile shortage was really more theoretical than practicable, because the naval war had continued for two years and eight months with no engagement in which the ships' allowances of major caliber shells had been expended. Conditions did not indicate another fleet action, even though the United States should go into the war, and the whole past history of the naval war showed that there could be no urgent or hurried need for projectiles that was so great as to cause the department to accept an inferior projectile or to pay an exorbitant price for any type. At one time it looked as if the department could not get shells of 14-inch caliber of the standard it wished, no matter what price it paid, and its reluctance to accept inferior projectiles was one of the reasons why the shell contracts were not placed earlier.

42. The department approved of procuring an additional reserve—shells for all calibers of guns—immediately after the breaking of diplomatic relations in February. This additional reserve was never completely obtained and since the armistice it has been decided to adhere to the reserve specified in the department's war plans.

43. Among the special type shell developed by the Bureau of Ordnance and supplied during the World War was found the nonricochet high-explosive shell, which was very successful when used in such high-velocity guns as the 5"/51 caliber.

SMOKELESS POWDER.

44. As in the case of projectiles, an additional reserve was authorized and steps taken at once to acquire the same. The following table shows the powder situation December 1, 1916, and April 1, 1917, showing that ample powder was on hand at all times:

	Pounds.
December 1, 1916:	
Allowance for guns on hand.....	20, 235, 390
Reserve for above.....	30, 353, 085
Total.....	50, 588, 475
Total powder on hand ashore and afloat.....	48, 291, 544
Shortage.....	2, 286, 931
April 1, 1917:	
Allowance for guns on hand.....	20, 829, 140
Reserve for above.....	31, 243, 710
Total.....	52, 072, 850
Total powder on hand ashore and afloat.....	50, 726, 269
Shortage.....	1, 346, 581

TORPEDOES.

45. Capt. Laning's statement, made to the committee on March 23, 1920, sets forth the shortage of torpedoes. Here, again, it was a case of negotiating for manufacture of torpedoes at a price considered reasonable to the department. Evidently there would be, during the war, no large demand for torpedoes, and this estimate of the situation was justified by developments as the war went on. Negotiations did not delay actual production of torpedoes, as they did not delay actual production of shells, although the difficulties and delays met with in placing of such contracts worried both the chief of bureau and the Secretary of the Navy greatly. As far as torpedoes went, it looked as if the submarines and destroyers would be completed before they could be equipped with torpedoes. However, the vessels were delayed, as were also delivery of the torpedoes, and hence no actual delay resulted.

46. The manufacture of torpedoes is such an intricate and time-consuming matter that unless the war were to have been a long one it scarcely could have been hoped that torpedoes ordered at its beginning could be completed at such times and in sufficient numbers as materially to aid in the prosecution of the war.

47. Under date of November 10, 1916, a price of \$9,500 each was quoted for Mark VIII, Model 3, 21 feet by 21 inch torpedoes, and a price of \$8,150 each for Mark X, Model 5, 5 meters by 21 inch torpedoes. As a result of further negotiations reduction was made to \$9,163.84 and \$7,815.84, respectively.

48. Under date of April 4, 1917, however, by direction of the Secretary of the Navy, the price to be paid for these torpedoes was fixed and an order given at \$7,922 and \$6,140 each, respectively. Contracts were placed in April, 1917, for 952 torpedoes at \$7,922 each and 344 torpedoes at \$6,140 each, an indicated saving from the original quotation of \$2,193,696.

49. A further contract for 876 torpedoes was placed in the same month at \$7,922 each, indicating an additional saving over the original price of \$1,382,328, a total saving in the price of torpedoes ordered at that time of \$3,576,024.

50. There being no spares of the heavy portions of turret mounts on hand, on January 1, 1917, the Bureau of Ordnance immediately took up the problem of procuring the large castings and the structural steelwork necessary in order to insure that, if a turret of a battleship should be damaged by shell, there would be on hand material necessary for its rehabilitation with the least delay, for otherwise six months would be required to fabricate such parts as slides and lugs. The Secretary of the Navy promptly approved these steps, and manufacture started upon the necessary items at once.

DEPTH CHARGES.

51. Prior to April, 1917, practically no information could be obtained in this country relative to depth charges and their use in the war against submarines. In fact it was only in February that any real information as to their use became available. This information indicated that small—that is, when considered in light of later knowledge—depth charges were being used from destroyers and patrol vessels against submarines. In other words, they were a war material only coming into being during 1917. The bureau, then, in the very earliest days of 1917 started at work intensively on the design of depth charges. Depth charges we learned in April were very scarce

abroad, due largely to the scarcity of high explosive, and their use much restricted accordingly. The substitute high explosive used was not entirely satisfactory.

52. Soon after the entry of the United States into the World War, the Bureau of Ordnance arranged for a supply of 10,000 50-pound depth charges of a somewhat complicated type as compared with later practice. The contract for these was let May 22, 1917; but before deliveries in quantity commenced messages from abroad indicated that this type of depth charge was too light to be very effective and too complicated to be certain in action. It was recommended that a heavier depth charge, similar to those recently designed and constructed by the British, be supplied to our antisubmarine forces. This recommendation was dated June 20, 1917, and in accordance therewith on July 30, 1917, a contract for 10,000 depth charges of the general type indicated with 300 pounds explosive charge was let. The design of these depth charges, however, differed in several respects from British practice in the direction of greater safety in handling and greater robustness.

53. As early as August, 1917, the Bureau of Ordnance in a memorandum in regard to the supply of depth charges gave its opinion that eventually not less than 40 depth charges should be supplied to each destroyer engaged in antisubmarine work. This continued to be the bureau's opinion in spite of the fact that September 1, 1917, Admiral Sims cabled that the depth charges contracted for would suffice for six months. Later in the same year the Bureau of Ordnance offered to supply additional depth charges according to British designs for use by British destroyers, and on December 13, 1917, a contract was let for 15,000 such depth charges.

54. Deliveries on the first 10,000 orders were about half completed by the first of the year, and all these charges became available for issue to ships for transport to bases abroad before the 1st of March. Meanwhile, anticipating the increased supply of both United States and British depth charges, a policy was outlined January 7, 1918, by Admiral Sims calling for a more liberal use of depth charges and increasing storage space on destroyers so as to raise the number of ready depth charges from 16 to 26. As late as the previous month the supply of depth charges had been sufficient to issue 10 to each destroyer with additional in store at overseas bases for replacements. The more liberal policy in treatment of depth charges as expandable if even a fair chance of damaging an enemy was thought to exist caused an additional order for 5,000 United States depth charges to be made March 12, 1918; and following further emphasis by Admiral Sims in a circular letter of April 19, 1918, to all forces under his command an additional contract for 15,000 was let April 29, 1918.

55. Deliveries on the principal contracts were seriously delayed during the spring of 1918 by strikes at the manufacturers' plant in St. Louis; and anticipating that expected deliveries would not be met the Bureau of Ordnance July 3, 1918, let still another contract for 10,000 depth charges of the United States type. On July 8, 1918, Admiral Sims recommended the use of United States design depth charges in place of British design, even on British vessels, for use in Thorneycroft throwers, on account of several accidents which had occurred in handling the British type with this projector. The Bureau of Ordnance immediately took steps to insure a sufficient supply by letting two more contracts for 10,000 each on July 19, 1918.

56. By this time it was a settled policy that destroyers engaged in antisubmarine work should be able to carry 50 depth charges, about half ready for use; and the numbers under contract at this time showed that this was possible, provided the depth charges could be shipped rapidly enough. During July, 1918, production on the various contracts steadily increased, and difficulty began to be experienced in obtaining necessary cargo space for greatly increased supplies to overseas bases. Many shipments were delayed by lack of carriers, the first large shipment during July being 1,000 of the British type shipped on the 25th. A further shipment of 1,000 United States depth charges went forward on August 3; and from this time until the end of the war the supply of ships kept approximately even with the supply of depth charges, so that a total of about 25,000 depth charges had been supplied to our forces at home and abroad by November 11.

57. Thus it is seen that not until after we entered the war—that is, April 6, 1917—did any inkling come to the Bureau of Ordnance as to the necessity of using depth charges heavier than 50 pounds, and not until long after that did any depth charge designs arrive in this country from Great Britain. When they did arrive the Bureau of Ordnance's own depth charge designs had been completed, and firing devices according to our development were put in production in preference to the designs received from the British Admiralty; this after careful consideration of the matter. That our action was right is proved by the fact that not one month later did we receive notice from the British Admiralty that depth charges made according to the designs forwarded to us were unreliable and inefficient, and had been given up for a new type because they were not sufficiently safe to handle or certain in their action.

58. It will be noted also in the above that it was the United States that permitted the extensive use of depth charges against submarines by assuring supply of depth charges in unlimited quantities to its own antisubmarine craft, as well as helping out supplies of the British antisubmarine craft. We believe that while a large stock ahead was never accumulated, still there was always sufficient aboard destroyers operating.

NEW EXPLOSIVES.

59. The bureau early realized that it could not continue any extensive depth charge or mining program and use T. N. T. therein without seriously embarrassing both our Army and the Allies for lack of that material in shells. The bureau was not satisfied with the substitute explosive used abroad—that is, amatol—as reports of the action of this explosive were not at all reassuring. Therefore the bureau developed a new explosive called trinitroxylol, and put it in manufacture so that satisfactory high explosive for any depth charge or mining program—no matter how great—that might be undertaken would never suffer from lack of explosive therefor.

SMOKE SCREENS.

60. Among the essentials for antisubmarine work was found to be the providing of merchant vessels with smoke-producing apparatus, which could be used in various ways, either from containers thrown on the water, emitted from special funnels provided aft, or thrown out by the vessels' own funnels. The material we provided was found in general to be satisfactory, due largely to the work done by the Bureau of Mines, Interior Department, at the request of the Bureau of Ordnance, Navy Department.

NEW DEVELOPMENTS.

61. The bureau carried out in time, and in a way generally as expeditious and satisfactory as possible, the development of many new devices of ordnance material such as noxious gas shells, star shells, and flashless powder.

AVIATION ORDNANCE.

62. The Navy Department was working along various lines of arming aircraft for offensive and defensive purposes in the fall of 1916, and in November of that year tried certain bombs for use against submarines in much the same manner as our depth charges, only necessitating a more complicated firing mechanism. Such bombs were not altogether satisfactory at that time and required further development. The greatest handicap—this was the controlling factor—to development of ordnance for aircraft was the difficulty of obtaining aircraft with which to test ordnance material. Nevertheless during the war the bureau supplied nonrecoil guns of a type suitable for sinking submarines sighted by aircraft when on patrol, originated a method of securing a machine gun to the larger gun in order that it might act as a finder for the larger gun. This method is now being generally adopted for aircraft guns by both the Army and the Navy. The pilot directing sight was developed by our Navy, and eventually was added to by improvements developed in practice abroad, with the result that the present bombing sight is considered quite satisfactory, although of course development is being pushed in line of improving this steadily. The Navy also took charge of the development of a new weapon of the air, which weapon depended upon aircraft, and which is still being held confidential.

OPTICAL INSTRUMENTS.

63. Rear Admiral C. P. Plunkett, United States Navy, on March 26 made the following statement before the Senate Investigating Committee:

"The question of range finding was taken up seriously. Up to 1915 we had comparatively no efficient range finding instruments. These are instruments of prime importance, and at the outbreak of the war we had only a sufficient number of them for our first line ships. The ships in reserve had practically no range finders worth mentioning."

STATUS OF RANGE FINDERS—WORLD WAR.

64. There were on hand in the Navy on April 6, 1917, the following range finders:

Long base (20 feet).....	24
Intermediate base (9 feet, 12 feet, 15 feet).....	130
Short base (1 to 1½ meter).....	234

After we had entered the war the Bureau of Ordnance sent an officer to Europe to compare the optical range finder of the Allies with those manufactured by the United States. This officer reported on the British range finders as follows:

"Range finders—United States Navy is better, but will not be when British get new 30-foot instruments."

French Navy: "Optical material is not as good as the British."

Italian Navy: "* * * optical material in the Italian Navy does not compare with the British."

Japanese Navy: "Judging by the policy which the Japanese Navy pursues of buying a few instruments from manufacturers of any note in every country where possible, I am of the opinion that her optical instruments compare favorably with those of the British Navy and the United States Navy."

From the above it will be seen that the Allies obtained most of their range finders from Barr & Stroud Co. in England so that a comparison of the American range finders with the best range finders made by Barr & Stroud will give us an idea of the efficiency of our range finders as compared with that of our allies.

65. Early upon our entrance in the war we sent our best portable range finder, a 20-foot Bausch & Lomb instrument to England for the purpose of having the British Admiralty compare our instrument with their best Barr & Stroud instrument. We had better and longer based instruments at that time installed in the turrets of some of our latest ships, but it was impracticable to send one of these. The 20-foot instrument we sent was put on test against a 15-foot Barr & Stroud instrument, which was the best instrument at that time in the British Navy. A comparative test of the two instruments was reported upon by the captain of H. M. S. *Excellent*, Portsmouth, England. The tests were made by operators who had had several years range-finding experience in a large ship. The result of the tests shows United States instruments to be superior to the best instruments in use in the British Navy. The complete data on these tests gives all the readings made by the two range finders and shows the superiority of the American instrument over the British.

66. The American naval officer's report on range finders used in the British Navy contained the following interesting statement:

"At the beginning of the war the British began to fit the latest ships with Barr & Stroud 15-foot instruments, the standard instrument in use up to this time being the 9-foot Barr & Stroud, a number of which we have in the United States Navy (Mark II). At the Battle of Jutland, in spite of the early reports to the contrary, I have been informed that there were thirty 15-foot range finders in the British Fleet, five each on four ships of the *Queen Elizabeth* class and five each on two ships of the *Revenge* class."

The above quotation from Commander Orr's report shows conclusively that as regards range finders the American Navy was superior to all of the Allies.

67. We have had no means of comparing our range finders with those used in the German Navy, for the reason that we have been unable to procure any German range finders. Prior to the war the glass and optics used in the manufacture of our range finders came from Karl Zeiss, of Jena, the manufacturer of the range finders for the German Navy.

68. Each first-line battleship of the active fleet contained at least one 20-foot range finder or better, which was superior to the best range finders mounted in the British fleet, the British carrying 15-foot range finders.

69. In addition to these range finders, the United States, beginning with those ships commissioned in 1914, had range finders installed in turrets. This was a distinct advantage over the mounting of range finders in other navies, in that the range finder is protected by the turret in which it is mounted and contains a base slightly greater than the width of the turret.

No navy had any such range finders as those which we had mounted in the ships beginning with the *New York* and *Texas* and continuing through the *Oklahoma*, *Nevada*, *Arizona*, and *Pennsylvania*. All the ships mentioned were commissioned before the war and all of them contained long base range finders in the turrets, those in the *Arizona* and *Pennsylvania* being 25 feet in length. After we entered the war, the battleship *Mississippi* was commissioned and in this ship 30-foot range finders were installed in the turrets. The British had no range finders during the war that could compare with those and only since the war are they mounting in their new H. M. S. *Hood* a range finder equal to that installed on the *Mississippi*. Our ships in reserve in the second line before the war had range finders of the base length equal to those of the British.

Battleships as of July 1, 1917.—Indiana, Massachusetts, Oregon, Iowa, Kearsarge, Kentucky, Illinois, Alabama, Wisconsin, Maine, Missouri, Ohio, Virginia (one 20-foot, one 12-foot, two 3-inch), Nebraska (one 20-foot, one 12-foot, one 3-inch), Georgia

(one 15-foot, one 12-foot, one 9-foot), New Jersey (one 12-foot, two 3-inch, one 9-foot), Rhode Island (one 12-foot, one 3-inch, one 9-foot), Connecticut (one 20-foot, one 15-foot, one 12-foot, one 3-inch), Louisiana (one 20-foot, one 12-foot, two 3-inch), Vermont (one 20-foot, one 12-foot, two 3-inch), Kansas (one 20-foot, one 12-foot, one 3-inch), Minnesota (one 20-foot, one 12-foot, one 9-foot), New Hampshire (one 3-inch, one 20-foot, one 12-foot), South Carolina, Michigan, Delaware, North Dakota, Florida, Utah, Wyoming, Arkansas, New York, Texas, Nevada, Oklahoma, Pennsylvania, Arizona, New Mexico, Mississippi, Idaho, Tennessee, California, Colorado, Maryland, Washington, and West Virginia.

Eleven ships in second line. Total range finders on them were—20-foot, 8; 15-foot, 2; 12-foot, 11; 9-foot, 4; 3-meter, 13.

OPTICS.

70. During the period from 1913 to 1917, the Bureau of Ordnance obtained all of its optical instruments from two firms in this country. While these firms fabricated the instruments themselves they were dependent upon Europe, principally Germany, for their supply of optical glass. The outbreak of the war in Europe during 1914 practically shut off the foreign supplies so that the manufacturer saw themselves helpless for raw material unless something was done in this country. However, influenced by the cost and lack of knowledge as to manufacture of optical glass and buoyed up by the hope that the war in Europe would be of short duration, these manufacturers depended upon their reserve stock of glass to see them through until such time as new supplies would be available. As the war went on, however, these companies attempted laboratory experiments in a very small way with the object of making glass. Such were the conditions as existed when we entered the World War, the first part of 1917. It was immediately recognized that the first step in the solution of the supply of optical instruments necessary was to provide a supply of glass of high quality. The Bureau of Ordnance's initial move in this direction was to secure an allotment to the Bureau of Standards, of a sum of money sufficient to establish an optical glass plant, of small capacity, but operating on the manufacturing production basis. Orders for optical glass were placed with several companies which agreed to attempt to manufacture such glass. The result of these efforts was that before many months passed the production of glass which has been measured in quantities of a few pounds was being produced by tons, the product improving in both quality and quantity. At the end of the war in November, 1919, there were five large producers of optical glass supplying glass to the Navy, where in 1913 there were none.

71. As stated there were only two companies supplying optical instruments in 1913, and the Navy in its own industrial yards had nothing but small plants devoted exclusively to repairs. By the end of 1917, the bureau had succeeded in getting the two original producers to nearly double their output and, in addition, had succeeded in getting seven other manufacturers to work on instruments for the Navy. In one case where the contractor got into difficulties that prevented satisfactory deliveries, the Bureau of Ordnance promptly took over the plant, operated same, supplied the Navy's needs for binoculars and, in addition, made deliveries to the War Department. A building was also started at the Naval Gun Factory in Washington for the purpose of establishing an optical plant there, but owing to priority being given to other work, the building was not completed until the end of the war.

72. The armistice naturally has produced the vast demands for optical instruments and consequently nearly all of the plants have turned their efforts to commercial work. However, the Navy will never be in the position it was in 1913, for a thoroughly equipped optical shop is now in operation at the Naval Gun Factory and while present capacity and output is small, there is a complete nucleus available for rapid expansion in case of necessity for the increase of capacity.

73. To sum up, the bureau has freed itself from the dependency upon foreign makers for optical glass as existed in 1913, and through its own optical shop has a capacity to extend readily, and has nearly four times as many commercial plants capable of doing its work as it had in 1913.

74. In its production of optical instruments, the Navy Department was certainly not behind other departments of the Government or of foreign Governments. As one witness to this, during the war the Signal Corps of the Army had placed contract with the Navy for 75,000 binoculars, which binoculars were in the course of being delivered at the cessation of hostilities. The production of binoculars and other optical instruments was all plain sailing by the end of the war and was due to energetic efforts of the technical officers concerned. For example, a private plant making binoculars, and delivering but 100 acceptable pairs per week, having 75 per cent of each week's

output failing to pass naval inspection was taken over by the Bureau of Ordnance, placed under its direct control, and was, within a month, delivering 1,000 pairs of binoculars each week, all of the highest grade.

MISCELLANEOUS ACTIVITIES OF THE BUREAU.

75. The Council of National Defense, during the early months of 1917, established certain subdivisions to coordinate war-like activities, this bureau dealing with the munitions board under that body. That board was desirous of obtaining an industrial inventory of the Nation, and found, upon inquiry, that this bureau had anticipated this need by many months, and was able to furnish a complete list of industrial commercial firms, giving their location, capacity, and war responsibilities. This was a confidential compilation of the bureau showing the facilities existing in the United States for the manufacture of projectiles, explosives, guns, cartridge cases, fuses, detonators, torpedoes, mines, nets, optical instruments, and other war materials. All firms were listed by name and address, their capacity and other characteristics being set forth.

76. The bureau had standard forms of contracts, handled business in a routine manner, and adhered closely to the competitive bidding system for procuring supplies.

77. Among the bureau's measures in this war period was the effort made by it, alone, to secure the enactment of a law, by which Congress authorized advance payments to contractors of a sum not exceeding 30 per cent of the contracts awarded them. This provision was most necessary, and its enactment certainly saved the day for Navy ordnance.

78. As a result of the bureau's urgent recommendations, the deficiency act of October 6, 1917, provided for advanced payments in the following language:

"SEC. 5. That the Secretary of War and the Secretary of the Navy are authorized, during the period of the existing emergency, from appropriations available therefor, to advance payments to contractors for supplies for their respective departments in amounts not exceeding thirty per cent of the contract price of such supplies: *Provided*, That such advances shall be made upon such terms as the Secretary of War, and the Secretary of the Navy, respectively, shall prescribe, and they shall require adequate security for the protection of the Government for the payments as made."

79. Without the aid of this law, there were few new firms that could, by any possibility, enter the field of manufacture of ordnance; and yet new firms had to take up such work, else merchantmen, destroyers, and patrols would have been without guns. Men and ships could be provided far faster than could guns and other offensive weapons.

80. This law of Congress really saved the convoy system, made it a success, enabled destroyers and transports to be armed; without it, the Navy could never have had its clean record of transportation of men and supplies overseas.

81. The bureau, in order to insure that tests of modern ordnance could be properly made, established a proving ground at Dahlgren, Va. The bureau established also the Naval Mine Depot at Yorktown, Va., and the torpedo station at Alexandria, Va., operated the plant for production of star shells at Baldwin, Long Island, pushed the naval ordnance plant at South Charleston, W. Va., along, so that delivery of gun forgings was made during the war, established an electrical shop at Dayton, Ohio, for fire control instruments, greatly increased the naval gun factory at Washington and the naval torpedo station at Newport, and also increased the torpedo production at the works of the E. W. Bliss Co.

82. The Bureau of Ordnance originated the plan, designed, produced, and shipped materials requisite for (a) the operations of heavy naval guns aboard, mounted on mobile railway mounts, (b) the mine barrage across the North Sea, known as the north-horn barrage.

83. It also originated certain operations that were not carried out to completion because of the shortness of the war, such as (c) the 7-inch naval guns mounted on mobile mounts, which would have been, had they been shipped overseas and used on the western front, the longest range tractor-mounted batteries in existence in the world, they being capable of 23,000-yard range, and (d) long-range supergun, designed for use against fortifications and cities in a manner similar to that utilized by the Germans in their long-range bombardment of Paris, the use of which might have resulted in bringing on a second fleet engagement, and in any event would have assisted the forward push by use on German sea flank.

INCREASE IN CAPACITY FOR ORDNANCE WORK DURING THE WAR.

84. For the information of the committee, should it be desired, the following information showing actual capacities for ordnance work now and the additions made in war, which it is requested by the bureau be not made public, is appended:

85. *Supergun project.*—Having spent sometime in investigation, calculations, and research, ever since the long-range-gun bombardment of Paris, the Bureau of Ordnance, on June 8, 1918, requested the Naval Gun Factory to proceed in cooperation with the officers of the bureau with calculations and design of gun capable of longest possible range; that is, one having a muzzle velocity of 4,500 foot-seconds and giving range of from 65 to 80 miles.

86. On July 17, 1918, the bureau wrote Vice Admiral Sims as follows: "It looks as though it would be possible for us to put some guns of 9-inch caliber, with a range of between 80 and 90 miles, depending somewhat on atmospheric conditions, on board ship. This being the case, do you think it advisable to rush such work in order to try a shot into Kiel, Helgoland, etc.? The firing ship could, of course, be well out of ordinary gun range and well protected from submarines by suitable destroyers. The mount of this gun is not yet developed, but does not seem to offer any particular difficulties, and, in fact, I believe we will be able to put it on a 14-inch railway mount. Any encouragement toward completing such weapon of warfare would be appreciated."

87. On August 13, the following cable was received from Admiral Sims:

"Acknowledge and refer to last paragraph your personal confidential letter 28737-324. The use, as suggested in your letter, of such extreme ranges, I consider, would have a decidedly detrimental effect on the morale of the enemy and at the same time a most favorable effect on the morale of the Allies, especially the civilian public. The military advantage of such a weapon would depend somewhat upon its accuracy. It might be used on the 14-inch naval railway mounts to bombard large ammunition dumps or tactical supply, thus forcing the enemy to accumulate his supplies farther to the rear of his lines than at present, which might be of considerable advantage. It is difficult to anticipate the requirements far in advance and it is probable that the necessity for such gun will be greater in the future than at present. It is recommended that utmost dispatch be used by board to proceed with development of such a gun as proposed."

88. The bureau advised Admiral Sims, under date of September 9, 1918, as follows:

"At the present time this bureau proposes to build six 9-inch Mark I guns, capable of a range of about 62½ miles. The *Oregon*, *Indiana*, and *Massachusetts* would each put on one of these guns; the other three would be placed on railway mounts. The Army General Staff prefers 14-inch guns, but say that they very much desire these guns on the flank. This would mean that mounted on board ship or on shore in Flanders they might be of some value morally. It would be quite easy to shoot into Wilhelmshaven, Emden, or Cuxhaven without the ships coming within the range of any fortress."

89. On September 19 we wrote Admiral Sims as follows:

"Gen. March requested that the three superguns that we had in process of construction be also built for use on the flank as contributing to a possible moral demoralization of the enemy at the time the big spring drive is on. We expect to mount these guns on three vessels of the *Massachusetts* class and fire at big marks, such as Wilhelmshaven, the range of the guns being about 62.5 miles as calculated, though we hope for much more. Do you believe it advisable or desirable to substitute for the vessels railroad mounts? The Army prefers the guns at sea on the flank."

90. Vice Admiral Sims was advised under date of September 28 as follows:

"The so-called supergun, i. e., 9-inch Mark I, is under construction and it is a gun 90 feet long, and the travel of the projectile along the bore is 63 feet. Its range as calculated by the best of empirical formulæ is 64 miles. The department intends to mount three of these guns on the *Massachusetts*, *Iowa*, and *Oregon*. As I find these guns can also be mounted on railroad mounts exactly similar to the present 14-inch, I intend to build a railroad mount of these designs in order that they may be used on the flank on land as suggested by Gen. March, in case you so desire."

91. The design and calculations having finally been completed, examined, and approved, the bureau, on October 2, 1918, in conjunction with the Bureau of Construction and Repair, reported that the design of the 9-inch supergun was completed, together with a mount which would permit the same to be used in turrets of the *Indiana* class, and recommended that one of these guns be mounted in the forward turrets of the *Indiana*, *Massachusetts*, and *Oregon* for use against cities on the enemy's flank and against important naval bases. All these guns would be ready early in 1919.

92. The bureau recommended that the ships be sent to the New York Navy Yard in order that changes in turrets necessary would be made in sufficient time to insure the completion of the project by June, 1919.

93. On October 1 Vice Admiral Sims advised the department as follows:

"As for the 9-inch long-range guns that you propose to build, I have discussed this matter with the Admiralty, and they do not see any use to which they could be put if mounted on ships. You state that shells could be thrown into Wilhelmshaven from a distance outside of the range of the forts. This is quite true, but it would be

a major operation to get these ships into that position through the mine fields (which extend out a hundred miles) and maintain them there. They and their supporting force would be subject to torpedo attacks by destroyers and submarines every night, not to mention airplane attacks from the neighboring airplane stations. Moreover it would be practically impossible in the present state of the art to maintain airplanes sufficiently near the target to send back the spots. You may be sure all this has been looked into very carefully and the authorities do not see much chance of molesting ports like Wilhelmshaven, etc., until they have completed the construction of a number of the great planes that can carry bombs that distance and get back again."

94. Nevertheless Great Britain went ahead on these lines and only in April, 1920, have firing tests with such a gun been carried out, if recent information considered to be authentic can be believed. This statement is based on what is believed to be authoritative and satisfactory evidence although it, of course, can not be confirmed officially.

95. On October 21 the bureau wrote Admiral Sims as follows: "The comments made on the 9-inch long range guns were very interesting and was the point of view that I wanted to obtain. I realized that to use the guns it would be necessary to undertake a major operation with the fleet, and had hoped that this was desirable, as it might bring out a part of the German Fleet, and thus bring on an engagement, whereby the German Fleet would lose sufficient units to more than pay for the expense and time in getting up the proposition. In view of your comment, and my inference from it that the Admiralty would not care to undertake such an operation, I shall put the matter before the Chief of Naval Operations before undertaking to mount these guns upon the battleships of the second line. However, the new railroad mounts for the 14"/50 guns we have constructed can take this 9-inch Mark I gun, in case the Army desire to use them on shore. Unless they do care to do so, I will not attempt to complete them."

96. *Mines.*—The following was the situation relative to mines in the Navy on December 31, 1916.

	On hand.	Under construction.
Mark I mines.....	550	.....
Mark II mines.....	312	.....
Mark III mines.....	1,090	.....
Mark IV mines.....	1,280	6,000
Mark I drifting mines.....	600	3,000

On April 7, 1917, the following material was on hand: Mark I mines, 550; Mark II mines, 312; Mark III mines, 1,090; Mark IV mines, 1,280; Mark I drifting mines, 600.

There were 2,000 Mark IV mines practically completed. In addition, there were under construction 10,000 Mark IV mines and 5,400 floating mines.

97. The mine and net situation in the bureau was probably the most difficult, to bring into a state of efficiency, of any of the work with which the bureau is charged. In the latter part of December the only officer attached to the bureau, who had been doing work with mines, had been detached, so that January, 1917, found the bureau with no mine section and absolutely no personnel with which to work and handle mines or nets. This was the situation confronting the new bureau chief, who, at once, made urgent representations to the Secretary, with the result that early in February he secured assignment to the bureau, in charge of the mine and net section of that bureau, which section he organized and placed into being—Commander S. P. Fullinwider, United States Navy, retired.

98. The mines that the Navy had under manufacture all possessed a firing device which was most unsatisfactory; in fact, it had been reported on adversely by our mine force, and word came from abroad that similar mines were of practically no value. One of the first steps necessary, then, was to so modify this mine-firing mechanism as to make it function under conditions met with along the coast of the United States, so that it would be suitable for any defensive mining that would be necessary. This task was handled satisfactorily and the mines on hand at the end of 1916 and those made later, on the contracts then existing, were made operative and efficient.

99. To summarize the mine situation, it was somewhat as follows: In the beginning of 1917, the situation in regard to submarine mines was most unsatisfactory. The only officer on duty with the bureau who was charged with mines had been detached in late December, 1916. The Elia type of firing device was proving unsat-

isfactory for waters where strong currents existed. Floating mines were being prepared at Newport, and the "depth mine," later known as depth charge, was being put into production, this, however, being only the 50-pound charge, then considered satisfactory in size. The prewar program called for but 14,000 contact mines, of which 3,232 were on hand. Two thousand due for completion on February 15, 1917, were under construction at Norfolk, and an additional order was placed for 10,000 at the same place, its capacity being about 500 mines per week at maximum, although the rate being attained at that time was but 140.

100. In connection with the development of the northern barrage project, which was one of the results of the study of offensive mining undertaken in the very earliest days of the war by the bureau, there was developed at St. Julien's Creek a mine-loading plant. In preparation for the barrage it was necessary to create a mine-loading plant capable of receiving, loading, and shipping 1,000 cases per day. The design for a plant of this nature was made by the Bureaus of Ordnance and Yards and Docks. The plant was located at St. Julien's Creek, Va., near the naval ammunition depot. The ground was broken for this plant on October 25, 1917, and, due to bad weather which set in early in November and continued with unprecedented severity until spring, construction work was delayed so that the plant was not ready for operation until March, 1918.

101. This plant, with its accompanying barracks for the housing of its operatives, covers an area approximately 3,000 by 800 feet, including the wharf, and consists of 22 buildings, including a mine case storage building, capable of storing 5,000 empty cases; a melting plant for the melting and pouring of T. N. T. for 1,000 mines per day; a cooling building where loaded mines are permitted to cool preparatory to shipment; a T. N. T. ready storage building with a capacity of about 4,000,000 pounds; a heating plant; and a wharf. This plant was equipped with conveyors and all labor-saving facilities. The rated daily capacity of 1,000 was exceeded by 50 per cent on one occasion. The plant handled a total of over 73,000 mines, which involved the melting and handling of over 22,000,000 pounds of T. N. T. without an accident.

102. As an indication that we entered whole-heartedly into all war projects, it is pertinent to note here that the actual proved mine capacity of this one depot was greater than the entire capacity that ever existed in Great Britain for mine production.

103. The bureau not content with planning the North Sea mine field went on and planned mine fields in the Adriatic and Aegean Seas. These projects were later taken up, considered, favorably reported on and adopted by the allied mine force in conferences held in foreign waters with responsible officers of the mine forces of the Allies. Anticipating the call for new mines that would be capable of use in water deeper even than that encountered in laying the Northern Barrage, and to provide for additional mines necessary for the Adriatic and Aegean projects, and at the same time making sufficient replacements for the northern barrage, the bureau went ahead and established the naval mine depot at Yorktown, Va. This was a comprehensive scheme, and that mine depot will form a most essential part of the Navy's activities in future years.

104. It is recalled that Rear Admiral A. P. Niblack, United States Navy, in statement before the committee on April 12, 1920, stated that—

"Before we entered the war and up to the time the convoy system got in working order the allied losses in merchant tonnage were as follows:

Year.	Ships.	Tonnage.
1914.....	67	86,665
1915.....	685	1,245,054
1916.....	1,310	2,290,437
1917.....	2,377	4,637,713
	4,434	8,259,869

"At the outbreak of war, in August, 1914, Germany had only 28 submarines, but she built 340 additional ones during the war. As there were about 200 of these submarines put out of action during the war it transpires that there were 168 submarines available for service at the time the armistice was signed. The average stay at sea of a submarine was about 27 days for the U-boats and 20 days, or less, for smaller types, of which one-third of its time was spent in going, one-third in operating, and one-third in returning to its base, and the trip generally resulted in the sinking of from 6,000 to 10,000 tons of shipping. It is estimated that each enemy submarine averaged about 40,000 tons of shipping sunk before it itself succumbed to attack. The sinking of sub-

marines was, however, not attributable to any one method employed against them, but was the result in pretty equal proportions of the various means employed against them."

105. As the total expenses involved everywhere in the mine barrage was \$79,476,534.32, it will be seen from the above that, estimating the value of merchant tonnage at \$240 per ton, which is slightly under what it was costing the United States to produce this tonnage, Rear Admiral Niblack's testimony of a submarine's value in shipping would be \$9,600,000; the cost of the northern barrage then equaled 8.32 submarines. As will be stated later, the lowest authoritative number of submarines that can be accredited to the northern barrage was 17. Therefore, the barrage was certainly well worth while and did an enormous amount of good. It is well to note again that the British Admiralty estimated officially that 23 submarines were lost in this barrage.

106. In any event it shows that the barrage which existed for only 6 per cent of the period of the war caused a loss of 8½ per cent of the total number of submarines lost during the World War.

107. In view of the fact that the testimony of Rear Admiral W. S. Sims, before the Senate committee has discussed the mine barrage in some detail, a running narrative of the conception and construction of this barrage is inserted here, after which the various statements made by Rear Admiral Sims are taken up, one by one, and discussed from the viewpoint of the records and knowledge available on this side of the sea.

THE NORTHERN BARRAGE INITIATION AND ACCOMPLISHMENTS.

The general impression gained from Rear Admiral Sims's testimony on March 16, 1920, before the subcommittee of the Senate investigating his charges against the Navy is that the mine barrage was proposed by the British Admiralty, and further that it was really not such a great success after all—did not materially affect the war.

Such impressions I consider do the Navy a great injustice and are contrary to the fact.

The Bureau of Ordnance submitted on April 15, 1917, a memorandum which dwelt upon two principal propositions: First, the protection of merchant vessels by means of cellular constructions and "blisters"; and second, antisubmarine barrages inclosing the North Sea and the Adriatic. Obviously, it was impossible to consider seriously any proposition to close German harbors as long as the enemy had complete control of his own waters. The next best thing to "closing the holes" was, of course, to close the North Sea by means of a barrage restricting the operations of enemy submarines to the North Sea and preventing their getting into the Atlantic and interfering with the lines of communication between the United States and Great Britain and France. The proponents of this plan freely admitted that such a barrage probably could not be made completely effective, but insisted that even if it were only partially effective it would win the war.

The consensus of opinion, however, was that the barrage should extend from the east coast of Scotland to the Norwegian coast. This, together with a short barrage across the Dover Straits, would shut off access to the Atlantic, or at least made the continued operations of enemy submarines exceedingly hazardous and unprofitable.

On April 17, 1917, the department cabled to Admiral (then Rear Admiral) W. S. Sims, in command of United States naval forces in European waters, directing him to report on the practicability of blockading the German coast efficiently in order to make the ingress and egress of submarines practically impossible. He in answer stated that this, of course, had been the object of repeated attempts by the

British Navy with all possible means and found unfeasible. Failure to shut in the submarines by a close blockade, using mines, nets, and patrols in the "Bight" and along the Flanders coast, focused attention of the department upon plans for the alternative of restricting the enemy to the North Sea by closing to him the exits through the Channel and the northern end between Scotland and Norway, as proposed by the Bureau of Ordnance. These are outlined in a memorandum of the Office of Operations dated May 9, 1917, which was to be submitted for the advice and comment of the British Admiralty with its valuable antisubmarine experience. The Navy Department noted that in working up any plan the whole field of operations was to be considered primarily with a view to attacking the submarine under water as well as on the surface. It stated that the entrances to the North Sea, while very broad and presenting immense difficulties, came within the bounds of possibility of control.

Estimating the cost of gaining this control and confining enemy submarines within the North Sea to be \$200,000,000, or perhaps twice that sum, there was no doubt that the United States would devote whatever amount it was worth if the purpose was to be accomplished. This was proposed to be done by establishing a barrage of nets, anchored mines, and floating mines to operate from 35 feet to 200 feet below the surface, which, while safe for surface craft, would bar a submerged submarine, while patrols could deal with those running on the surface.

Admiral Sims's reply to the department's query of April 17 was as follows:

To absolutely blockade the German and Belgian coast against the entrance and departure of submarines has been found quite unfeasible. Attempts have been made with all possible means to stop egress and to prevent nets and mines being dragged out. Many nets and mine fields have been and continue to be laid—destroyers, submarines, and other vessels have been used. Of course, for craft operating so near enemy bases, the danger is great and the result has been that several have been mined and torpedoed. Even to keep up an effective patrol against submarines and raiders between Norway and Scotland has been found quite unfeasible; far too many ships were attacked. On lines between Iceland and Scotland and between Scotland and Greenland ice floes as well as enemy craft must be guarded against on lines where patrol is now kept up. It is necessary to move lines after each enemy contact in order to maintain them and to prevent torpedoing, as there are no available ships to protect the cruisers from attack by submarines.

The destroyer has shown itself to be to a great degree the most efficacious enemy of the submarine attacking commerce. All possible means are taken by the enemy to force their being assigned to other duty, even to sinking ships on hospital service. With the exception of the minimum number required by the Grand Fleet, for carrying troops and their supplies, all destroyers are now so used. These vessels are being constructed as expeditiously as possible, but their number is quite insufficient to meet the existing submarine crisis, particularly as it affects merchantmen.

Commenting on this, the Admiralty, who had apparently but quite erroneously considered the United States proposals to particularly advocate the extensive use of nets, replied on May 13:

From all experience Admiralty considers project of attempting to close exit to North Sea * * * by method suggested to be quite unpracticable. Project has previously been considered and abandoned. The difficulty will be appreciated when total distance, depths, material and patrols required, and distance from base of operations are considered.

Admiral Sims, in his report to the department on May 14, 1917, said:

Bitter and extensive experience has forced the abandonment of any serious attempt at blockading such passages.

The officers of the Bureau of Ordnance continued to agitate the project enthusiastically and on July 18, 1917, the bureau addressed a letter to the Chief of Naval Operations announcing the development of a new type of mine-firing gear which would be suitable for mines for a northern barrage.

On July 30, 1917, the bureau addressed a second communication to the Chief of Naval Operations, submitting more complete information regarding the new mine and again proposing an American-British joint offensive operation in the form of a northern barrage.

On August 15, 1917, Admiral Mayo, commander in chief Atlantic Fleet, who was about to proceed to England accompanied by certain members of his staff, conferred with the chief of bureau and officers of the mine section regarding the new mine and its value for the proposed northern barrage. This discussion covered not only the material questions but also matters of strategy and tactics involved in such an undertaking. The bureau furnished Admiral Mayo for his information and for use in discussing the matter with the British naval authorities a memorandum embodying the ideas of the Bureau of Ordnance concerning the adaptability of the Mark VI mine for a barrage.

This memorandum gave in complete detail the barrage which was accepted later by the Admiralty. It is worthy of note that we advocated a complete sealing of the North Sea by laying the mines from Aberdeen to Ekersund, the Dover Straits to be closed by the British. The British claim to have originated the plan for the northern barrage is based on a paper submitted toward the end of August, 1917, by Commander Alan M. Yeats-Brown, D. S. O., R. N., entitled "Anti-submarine mining proposals." It also appears from a British history of the northern barrage that Commander Yeats-Brown made various proposals on the same subject during the preceding two months, first about July 1, 1917. The British had not then nor never did have a suitable mine for such a barrage. Our proposal was really put in writing under date of April 15, and the bureau was actually testing the type of mine it finally adopted two months before said Commander Yeats-Brown knew anything of or seriously considered such a barrage.

The northern barrage project was taken up at an allied naval conference, at London, September 4-5, 1917, attended by Admiral H. T. Mayo, United States Navy, where, as reported by him on September 8—

The British Admiralty put forward as an alternative to a close offensive in German waters the suggestion that the activity of enemy submarines might be restricted by the laying of an effective mine field or mine net barrage.

The mine net barrage was considered impracticable and—

As to the proposal to put down a mine barrage in the northern part of the North Sea, while it could be guarded against enemy sweepers, certain difficulties exist, such as lack of freedom of movement of the Grand Fleet, so that a very promising degree of success should be indicated before such an undertaking was begun.

Further—

The conference, after discussion, agreed that the distant mine barrage could not very well be undertaken until an adequate supply of mines of satisfactory type was assured.

Our mine record in the World War stands the scrutiny of time. In the short period devoted to mine work we averaged 12,805 mines per month. The greatest British output reached was 10,000 mines per month. In our five months of laying mines, though 3,000 miles and more from our base of supply, we planted one quarter as many as did the British during the entire period they were at war.

The results of the allied naval conference at London September 4-5, 1917, may be summed up as indicating a favorable attitude in principle toward the northern barrage project—leavened with doubt of its practicability. At the outbreak of war in 1914 the British had practically no mines, and for want of a better one adopted the Vickers-Elia type, which soon proved unreliable and ineffective. This was superseded by one of British Admiralty design, essentially similar to the Russian and German horn mines, but with a distinctly British sinker (anchor). This British horn mine, while perhaps an improvement on the Vickers-Elia, was not entirely satisfactory, being comparatively dangerous to handle, too susceptible to countermining, unreliable in automatic depth taking, and not of a type lending itself to rapid and economical manufacture.

For some reason British officials apparently were skeptical of the ability of the United States to produce quickly a more satisfactory type. This attitude first became apparent to the Bureau of Ordnance on June 2, 1917, when Admiral Sims, in a dispatch to the department reported:

The British Admiralty have concentrated upon the construction of mines to such extent that they now anticipate that by August the output will reach 10,000 a month. They consider it unwise from their previous experience with mines similar to those which we now have on hand to attempt to utilize our present available supply. They now consider * * * as our output of a different type mine would not be available in sufficient time that we can more profitably concentrate on other work.

On October 20, 1917, on the recommendation of the General Board, the Navy Department cabled Admiral Sims substantially as follows:

The department requests to be informed whether the plan for the placing of a mine barrage across the North Sea on the Aberdeen-Ekersund line has the approval of the Admiralty. It is believed that the great experience of the British naval forces in North Sea operations and their experience in naval mining during the present war puts them in the best position to decide whether the proposed scheme is practicable in construction and maintenance, and whether in the opinion of the Admiralty it is the best scheme in sight for limiting the operations of enemy submarines, provided that the Straits of Dover can be efficiently closed to the passage of submarines which if possible, in the opinion of the department, should be done at the earliest possible date.

The British proposal was our proposal modified—in some details, it is true—but less effective, the line being changed from Aberdeen-Ekersund to Orkneys-Norway, thus leaving a bad leak at Pentland Firth.

The foregoing indicates the desire of our Navy, from the very beginning of the war, to add the barrage to the existing submarine offensive measures.

The following reply in substance was received on October 23 from the Admiralty:

Admiralty's cable of 17th indicates the assistance desired from the United States of America. This scheme is considered by the Admiralty to be the best to be carried out at a distance from the bases of the enemy. The Admiralty are working on a supplemental scheme for operation close inshore, but any such inshore operation has

the defect that a passage through for submarine can eventually be cleared by the enemy.

No scheme yet tried has been effective in closing the Dover Straits to submarines, but measures are being constantly improved and they are at the least always a considerable deterrent. Mining operations on an extensive scale against submarines in the Straits of Dover commence in November. Owing to the lack of effective antisubmarine mine this has hitherto been delayed.

The report of the General Board was approved by the Secretary of the Navy October 29, 1917, and on the following day the northern barrage project was favorably acted upon by the President at a Cabinet meeting. This formal approval was anticipated, since the Secretary and the President had been in close touch with the project from its inception in April, 1917, and had been giving support and approval to the plans of the Bureau of Ordnance.

So much to show who were the initiators and boosters of the plan. It was our Navy, especially the Bureau of Ordnance.

It must have been considered a plan to offer success, as the British advertised it May 4, 1918, and Admiral Jellicoe claimed a large share in it, stating that not until large supplies of mines became available could really effective results against submarines by mining be achieved. He made the prophecy, having in mind the American barrage, that the submarine menace would be met by August. Surely the originating of an undertaking not worth while would not have been claimed by so many notable officials.

It has been established that six submarines were lost in the barrage and three more so badly damaged that they never again put to sea. However, from other evidence, the British Admiralty officially credit the barrage with 14 additional, or a total of 23. Two hundred German U-boats were destroyed in the war, or 50 more than the Allies could account for. To err on the conservative side, we claim but 8 out of the 14, credited the barrage by the British Admiralty, or a total of 17. This is also the figure arrived at by Capt. R. R. Belknap, commander mine squadron 1.

What does this figure show? Eight and one-half per cent of the total number of submarines lost during the war were brought into the list of missing by the barrage, which existed for only 6 per cent of the period of the war.

Such a result more than justified the effort and time and funds expended.

But in addition we see that it aided the successful conclusion of the war most materially by holding German battle cruisers in port and affecting the morale of the German Navy.

It was to be expected that the German battle cruisers would raid our transports coming across the Atlantic, and that such raids would be made with the probability of sinking many transports in the convoys. By closing the North Sea with this mine barrage it becomes impossible for German battle cruisers, even though commanded by sea fighters of the first quality, to leave the North Sea in order to make such attack.

The morale of the whole submarine force was affected by the presence of this North Sea barrage, and it was one of the contributory cause, if not the main cause, of the naval mutiny that occurred in Germany in the early fall. German submarine commanders continually referred to the presence of this barrage, stating that their greatest fear was caused by mines. The morale of the submarine

force was undermined by the fact of this danger, impossible to avoid, stretching across the North Sea, both on the water and underneath the water, so that the sailors and officers had a wholesome dread of the unseen danger lurking in the darkness of the rough waters of the North Sea.

After our mine fields became known, we learn that captured German commanders stated that the mine had replaced the depth charge in their estimation as being the most dreaded of the weapons in use against the U-boat. Some of these vessels actually tried to reach the high seas and return therefrom through the hazardous route of Pentland Firth.

The summary of activities of United States naval forces in European waters, issued by Admiral Sims, says further:

There is no doubt that this barrage had a considerable moral effect on the German naval crews, for it is known that several submarines hesitated some time before crossing. Also, reports from German sources are that the barrage caused no small amount of panic in some of the submarine flotillas.

It is also probable that the barrage played a part in preventing raids on allied commerce by fast enemy cruisers.

Our barrage was carried out without interfering in any way with other operations against the submarines. The barrage was the greatest constructive naval offensive of the World War—conceived immediately upon our entrance into the war, pressed upon the Allies until they accepted it, and mainly laid by the American Navy. History will give it first place as the outstanding new and effective naval weapon which this war produced. Its work stands as sufficient testimony to its worth.

TESTIMONY IN REGARD TO THE NORTHERN BARRAGE, GIVEN BY REAR ADMIRAL W. S. SIMS, UNITED STATES NAVY, BEFORE THE SENATE SUBCOMMITTEE ON NAVAL AFFAIRS, TUESDAY, MARCH 16, 1920.

A study of the testimony leads to the conclusion that, consciously or not, it was the intention of Rear Admiral Sims to prove the following propositions, all of which are believed to be fallacious:

(a) That all the antisubmarine measures proposed by the Navy Department soon after the entry of the United States into the World War were "impracticable."

(b) That no project for an antisubmarine barrage across the North Sea, of mines, nets, or both, should, at that time, have been given consideration.

(c) That a barrage was proposed as the only operation of the United States Navy.

(d) That, at a later date, September 4, 1917, the British Admiralty initiated a barrage plan radically different from the plan proposed previous to that date by the Navy Department.

(e) That the Navy Department delayed, without reason, its adoption of the British barrage plan.

(f) That after adoption the plan for a barrage of mines alone, as a joint operation, received full support from Rear Admiral Sims and from the Admiralty.

An effort will be made below to show at what points in the testimony each of these propositions is supported. Comment will be made where it appears that false impressions have been or are

likely to be created by the wording or arrangement of the testimony. The force of real arguments presented in favor of the propositions will be discussed, contradictions noted, and additional evidence not included in the testimony will be referred to in rare instances where it appears possible that facts known to Rear Admiral Sims have been ignored. Nothing will be given in comment upon parts of the testimony that are merely irrelevant, or upon parts that appear either to be true, or, if fallacious, to be incapable of disproof by evidence available to the Bureau of Ordnance. Most, but not all, of the statements which are objected to have a basis in fact, but, by their manner of presentation, give impressions wide of the truth.

It is pertinent here to quote the remarks of Rear Admiral Mayo made before the committee on March 30, 1920, in reference to this matter. They are:

Referring to the discussion of the northern mine barrage—the discussion of the northern mine barrage is misleading. In 1917 I took over a memorandum regarding a mine barrage, which included the details of the mine. The British Admiralty discussed this question with myself and staff and proposed modifications which were later accepted by our department. I incorporated this statement in order that there can be no doubt on the subject. Furthermore, I do not concur in the statement that the barrage was a subsidiary measure, but I will not attempt to go into the details because the committee will presumably call officers who are more familiar with the details than I am.

Proposition (a) is that all the antisubmarine measures proposed by the Navy Department soon after the entry of the United States into the World War, were impracticable. Rear Admiral Sims states:

- 187:15-16. 3. Mine barriers of net and mines of standard types.
4. Mine barrier of mines of new type.

Separation of mine barriers into two classes, standard and new, implies that the corresponding plans were distinct and consecutive in the order given. As a matter of fact the hope of using standard mines, Vickers-Elia type being understood by this term, had been definitely abandoned by the Bureau of Ordnance prior to the issuance, April 15, 1917, of a comprehensive memorandum on anti-submarine warfare, prepared, at the instance of the chief of bureau, by Commander S. P. Fullinwider, United States Navy (retired), then head of the mine and net section of the bureau. The following quotations from this memorandum are particularly interesting in this connection:

28. All measures for sealing ports or channels present the difficulty that the Germans have so extensively mined their waters and have such supervision and control thereof as to render such measures almost, if not, impracticable. It is possible, however, to establish mine barriers in zones at a distance from the German coasts, practically sealing up the North Sea. * * *

33. The northern barriers would extend from the mid-eastern coast of Scotland to the Norwegian coast, a distance of about 250 miles. * * *

36. Assuming that a special form of mine is used. * * *

41. * * * If an immediate decision should be made, the proposed barrier scheme could not be put into effect inside six months.

In his testimony Rear Admiral Sims states:

188:17-19. * * * there must have been compelling reasons, tactical or otherwise, that had prevented its adoption by the Allies long before our entry into the war.

189: 25-35, 38-41, 46-48. The fact that all such methods (nets, mines, obstructions, etc.) inherently involve the added necessity of continuous protection and maintenance by our own naval forces, is seldom understood and appreciated. I finally convinced the prime minister of the fallacy of such propositions by describing the

situation into which we would be led, namely, that in order to maintain our obstructions we would have to match the forces the enemy brought against them, until finally the majority, if not all, of our forces would be forced into dangerous areas, where they would be subject to continual torpedo and other attack; in fact, in a position most favorable to the enemy.

The heaviest anchors obtainable have been used for nets, mines, and obstructions, only to have the arduous work of weeks swept away in a few hours of heavy weather. Moorings will not hold. They chafe through.

Submarines have gone under mine fields and have succeeded in unknown ways in evading and cutting through nets and obstructions.

192: 19-22. Bitter and extensive experience has forced the abandonment of any serious attempt at blockading such passages as Scotland to Norway, Scotland to Shetlands, Skaggerback.

194: 21-29, 50-60. 26. As for protecting such a long line, or any line of considerable length, it is, of course, physically impossible to do so effectively, and this for the fundamental reason the defense is stretched out in a long and locally weak line, while the enemy can concentrate an attack at any point of it, destroy the patrol vessels, and drag out some sections of the mines or net, thus permitting the passage of any number of submarines.

27. This can be done in as many places as desired and as often as may be necessary, whether the barrier is nets or mines.

I can not too strongly emphasize the fact that during nearly three years of actual warfare this whole question has been the most serious subject of consideration by the British Admiralty, and that many schemes of the nature of those in question have been thoroughly discussed, and those considered practicable—those which do not violate a fundamental principle—have been, or are now being, tried and extended; but the point is that no barrier can be completely effective, and, unfortunately, a barrier or system of barriers, such as mines, etc., needs only to be slightly ineffective to permit continuous passage without much loss of submarines.

199: 7-12. Their experience in developing new designs and arranging and conducting manufacture rapidly under pressure of actual war conditions has been very disheartening, and they are therefore considerably concerned over the prospect of our introducing new designs with which the personnel here will not be wholly familiar.

All these statements are of the same general type, showing disbelief in any mine barrage. The fact that something has failed is taken as an argument against trying again in a new way designed to avoid the causes of failure. Comment is superfluous.

Writing of the British experience, Rear Admiral Sims says:

192: 5-9. According to their experience, all barrages, whether of mines or nets, or both, are not an absolute solution, for the following fundamental reason: Nets do not stop submarines. Mine barriers can not be wholly effective, unless they could be maintained by patrol at all points.

A particularly pernicious type of argument is illustrated by these instances, to the general effect that there is no difference between partial success and complete failure. A little consideration will show how weak such an argument is when Rear Admiral Sims urges, almost in the same breath, the continuance on a greater and greater scale of measures, such as the use of destroyers and other craft, whose failure to wholly suppress submarines is well known. (See testimony, p. 188, lines 6-8.)

Rear Admiral Sims goes on to say:

188:45-48. Even to keep up an effective patrol against submarines and raiders between Norway and Scotland has been found quite unfeasible; far too many ships were attacked.

It is implied by use of the word "even" that the planting of a mine barrage would make this problem harder. The contrary is the case.

Again he says, speaking of the Navy Department's proposal:

188:48-49. On lines between Iceland and Scotland and between Scotland and Greenland. * * *

The implication is that the Navy Department proposed barrages between Iceland and Scotland or between Greenland and Scotland. This was never done.

Rear Admiral Sims also says:

192:14-16. A barrage that can be thus broken at will by concentrated attack is ineffective.

The argument of Rear Admiral Sims that surface craft can easily sweep passages for submarines loses force as the barrage is placed farther from the enemy's bases and nearer to our own. Compare paragraph 28 of the Bureau of Ordnance memorandum of April 15, 1917:

All measures for sealing ports or channels present the difficulty that the Germans have so extensively mined their waters and have such supervision and control thereof as to render such measures almost, if not, impracticable. It is possible, however, to establish mine barriers in zones at a distance from the German coasts, practically sealing up the North Sea. * * *

Rear Admiral Sims seems to find no good reason for the barrage, for he says:

192:27-29. Enemy submarines can always find passages around and through, principally close in shore, and through island passages and gaps dragged in mine fields.

The longer the barrage and the better its ends are located with respect to smooth coast lines the less this argument applied. What it does show is that the patrol need not be spread out uniformly, but can be concentrated at weak spots. The argument applies more accurately to the barrage as modified by the British Admiralty than to that first proposed by the Bureau of Ordnance, since the British proposed terminating the barrage at the western end of the Orkneys, where numerous island passages required special patrolling.

Your committee should bear in mind the various and strongly expressed reasons why Rear Admiral Sims opposed the barrage from the time it was proposed, in April, 1917. He never in any letter or cable based his opposition on the character of the mines. His reasons, as given during 1917, were not because of the type of mine. His reasons as given above are practically that the British had tried out everything possible, and all methods of closing the North Sea had failed and all measures proposed by the American Navy were impracticable. In the hearing before your committee, page 193, he makes it appear that his opposition was wholly to the type of mines then known to him, for he says:

193: 4-11. It should be noted, at this point, that the scheme here proposed, although similar in character, and designed to be carried out in the same area as the northern mine barrage which will be discussed later, was to in sense the same plan later carried into effect in laying that barrage. The thing which made possible the northern barrage was the use of a certain type of mine known as the antenna mine, because of its technical features which had not been invented at the time this dispatch was sent to the department.

Much of the reasoning given above in regard to Rear Admiral Sims's testimony, quoted from page 187, 15-16, applies here as well.

In addition, it should be made clear that the new type of mine was designed to fit the barrage plan, and not the barrage plan to fit a new type of mine. It has been proven in evidence taken to support a patent claim that the device embodying the principle later utilized in the mine was not, as offered by the inventor, suitable either for an antisubmarine barrage or for any other naval use. The idea of designing a mine to utilize the unique features of the device was suggested by the existing need for an antisubmarine barrage mine.

Rear Admiral Sims further advanced the great extent of the project as an argument against it in the words:

192: 32-35. Mine area much too extensive for all to be patrolled; hence no definite knowledge of the number of submarines destroyed or damaged by mines.

The absence of "definite knowledge of the number of submarines destroyed or damaged by mines" is no argument at all against attempting such destruction and damage.

Again, in his testimony, Rear Admiral Sims says:

202: 30-33, 33-34. As I have clearly pointed out, however, the plan of the mine barrage as finally carried out, as a supplementary measure against submarines, was an entirely different matter from the plans proposed by the department in April and May, 1917.

The statement made here merely proves the inability of Rear Admiral Sims to recognize continuity in the development by the Navy Department of a successful barrage plan.

He also says:

These implied a complete neglect of the time element.

So far was the Bureau of Ordnance from neglecting the time element that the time estimate made in the memorandum of April 15, 1917, and quoted above in connection with 187, 15-16, proved in the sequel to have been approximately correct. The bureau estimated six months, and its work was completed in that time.

Rear Admiral Sims has told you that no project for an antisubmarine barrage across the North Sea, whether of mines, nets, or both, should have been given consideration during the spring of 1917.

He says:

188: 20-27. I found gradually in the early months of my mission abroad that the department was insistent upon development of some such solar-plexus blow, which should immediately defeat the submarine. Personal letters from officers in the department indicated clearly to me that, in their failure to realize the desperately critical nature of the situation, they were allowing themselves to be drawn into fascinating speculation in the effort to devise some new and radical offensive plan.

The statement that officers in the Navy Department failed to realize the desperately critical nature of the situation appears directed against all who were making an "effort to devise some such new and radical offensive plan." The following quotations from Commander Fullinwider's memorandum of April 15, 1917, will be sufficient answer to this charge as far as the proponents of the mine barrage are concerned:

* * * Germany will win the war if she can continue the rapid diminution of merchant shipping. The only hope of the Allies (including America) lies in finding means to curb the effectiveness of the submarine and replacing lost ships, and any further delay will be fatal.

The situation was clearly grasped, and it was seen by the Bureau of Ordnance as an obvious duty to study the possible value of new

weapons while maintaining peak production of all standard types required. "Fascinating speculation" is not a fair term for such duty.

Rear Admiral Sims had but one idea in fighting submarines, and that was hunting the submarines after they had been permitted to get out. The Navy Department wished to keep the hornets in their nests. Rear Admiral Sims then states his one-idea policy:

189: 10-14. In the absence of adequate patrol craft, particularly destroyers, and until the enemy submarine morale is broken, there is but one sure method of meeting the submarine issue, upon which there is also complete unanimity—increased number of merchant bottoms, preferably small.

It is assumed again that effort, except on "one sure method," is purely wasted. His mind seems closed to any plan looking to an effective barrage that would shut in the submarines. He welcomes no such suggestions, for he says:

191: 19-26. Personal letters which I received from officers in the department at this time contained practically nothing else than long discussions of various projects which might be carried out to accomplish that end, all of these requiring a tremendous amount of material, and a length of time, which necessarily reduced them to subsidiary operations to be carried when time and material might be available, if they were considered at all feasible, rather than as the main operation which the United States Navy should undertake.

Again Rear Admiral Sims says:

192: 38-41. Defensive measures on our own coast, or in any other locality, and in act, all defensive considerations, should be subordinated to the offensive against the submarines where they are operating.

The statement is very misleading, implying as it does that the barrage plan was defensive and, as such, rightly secondary. As a matter of fact, the plan was offensive, the barrage being proposed between the enemy submarine bases and their chief theater of operations.

Again and again Rear Admiral Sims emphasizes that the British Admiralty had no plan against the submarine except surface boat attacks, which they had carried on three years with small measure of success. He shared that view and discouraged, so far as he could do so by declaring other plans impracticable, the great idea of a barrage that would keep the high seas free from submarines. He insists upon the surface craft as the only weapon against them, whereas the number of net craft in Europe and America was wholly inadequate to patrol the wide expanse in which the submarines moved. Here is his argument, iterated and reiterated:

192: 47-54. It is the firm conviction of all British officials concerned in this problem that the most effective opposition to submarines lies in numbers of antisubmarine craft strategically disposed, with the mission of dispersing the enemy submarine efforts from the critical areas and thereby forcing them to operate over such widely separated areas that their successes and our losses will be reduced below the critical point.

This assumes, in error, that mine barrages in the right places would not disperse the enemy submarine efforts from the critical areas. Note also that most of the argument is as much a convoy system as against any other new plan.

Again he returns to his argument against the proposals to fight the submarines by means of closing up the North Sea, for in his testimony he goes on to say:

193: 21-33. Numerous propositions are made to the British Admiralty that have for their object the closing of the North Sea, or the German ports, against the ingress

or egress of submarines. These are presented by all classes of people, including Members of Parliament.

They are, generally speaking, of two classes, namely, mines or nets, or both. I have gone over this whole matter with the First Sea Lord, and those members of the Admiralty board who are specially charged with the practical details of such matters.

As may be imagined, this whole subject has been given the most earnest consideration, as it is, of course, realized that if submarines could be kept from coming out the whole problem would at once be solved.

Rear Admiral Sims also states:

194: 50-56. I can not too strongly emphasize the fact that during nearly three years of actual warfare this whole question has been the most serious subject of consideration by the British Admiralty, and that many schemes of the nature of those in question have been thoroughly discussed, and those considered practicable—those which do not violate a fundamental principle—have been or are now being tried and extended.

These passages, of course, nullify any argument against the consideration of similar proposals by the Navy Department, since such consideration by the British is here commended, and he accepted their conclusions unreservedly.

But after all his argument against the mine barrage, when the Navy Department refused to accept his view, the British view, he attributed the success of the barrage to a new type of mine, saying:

195: 16-21. With the invention in the United States of a new type of mine, however, the project was put in an entirely new light and it merited further careful consideration. The Bureau of Ordnance of our Navy Department was quick to grasp the possibility offered by the new mine and to outline a plan for its use.

It would be imagined from this statement by Rear Admiral Sims that a new mine was invented outside of the Bureau of Ordnance, and that new proposals originated thereafter, and long subsequent to May, 1917. That this was not at all true has already been made clear. In addition, note that the new electrical device was submitted to the Bureau of Ordnance on May 2, 1917, and was being considered as one possible firing element for a barrage mine at the time Rear Admiral Sims first heard of the barrage plan and opposed it.

So strenuously did he oppose the idea of the Bureau of Ordnance of a mine barrage that he even suggested that the bureau should drop the matter entirely, though it had devoted its best energies and thought to it from the beginning of the war. He even suggested that it could more "profitably concentrate on other work," a suggestion, in the light of what was achieved, which shows that Rear Admiral Sims as well as some others had hindsight instead of foresight in this great matter. He said to your committee:

196: 13-16. In view of above, and as our output of a different type of mine would not be available in sufficient time, they now consider we can more profitably concentrate on other work.

Rear Admiral Sims assumes the inability of the Bureau of Ordnance to supply material for a barrage without crippling other work. This indicates a certain degree of truth in his repeated statement that a situation 3,000 miles away can not be correctly judged. We were wiser in Washington, as events proved.

He devoted several pages to trying to show the difficulties that lay in the way of carrying out the project. The Navy Department's answer was that the only good of an obstacle is to overcome it and we did it to the pride of our Navy.

If consideration of every one of the problems had not been taken up by the Bureau of Ordnance on its own initiative and before the slightest encouragement had been received from abroad it would have been impossible to finish more than a small part of the northern barrage, to say nothing of the whole project, during the first available period. Far from being "impossible * * * to undertake any such scheme," it is clear that this is the very thing that was successfully done.

Rear Admiral Sims was adamant against any and every argument for the mine barrage, he refused to believe it practicable, threw cold water on it, quoted the British Admiralty on being opposed to it, and in the following statement indicated his belief that it was simply "a magnificent scheme" and could be "effective at some future date," evidently thinking this future date would not help to win the war:

205: 24-25. It is not enough, when a nation is at war, to prepare magnificent schemes of operation to be effective at some future date.

The fact is, that the Bureau of Ordnance, to take a concrete example, was at this time doing everything humanly possible to provide every sort of weapon required in other operations than a mine barrage, and doing it so quietly that Rear Admiral Sims, bombarded with queries as to plans whose progress was being delayed by lack of information from abroad, thought nothing was being done.

Rear Admiral Sims indicates that at a later date, September 4, 1917, the British Admiralty initiated a barrage plan radically different from the plan proposed previous to that date by the Navy Department, and giving the British Admiralty credit for what justly belongs to the American Navy said:

200: 34-38. I immediately replied in my dispatch 187 of August 22, stating that the British were sending a special officer to inspect and test the new mine, and that if it was found "suitable for operations in contemplation, further arrangements for cooperation would be made."

The context makes it clear that the "operations in contemplation" were American in origin. The low rank of the officer selected (Lieut. DeSalis, R. N.), indicated to the Bureau of Ordnance that the Admiralty at this time, two weeks before the date of its alleged initiation of the final barrage plan, held no very high opinion of any such plan.

Continuing, Rear Admiral Sims said:

200: 40-44. He (Admiral Mayo) brought with him a memorandum from the Bureau of Ordnance, with regard to the new mine, and had been instructed by the department to discuss, at the allied conference, the possibility of offensive operations based upon the employment of this new mine.

The impression conveyed is that Admiral Mayo brought to the conference of September 4 and 5 only a memorandum giving the characteristics of the new mine. This is a serious understatement and conveys a wholly wrong impression, for Admiral Mayo not only had the characteristics of the mine but the well developed plan for the barrage.

As soon as experiment had shown, early in July, which of the new types of mine under development should be chosen for the barrage, already a well developed plan, the Bureau of Ordnance, in two letters to the Chief of Naval Operations, dated July 18 and July 30, and in a memorandum for the commander in chief Atlantic

Fleet, dated August 15, gave in great detail and with a full statement of the reason for each recommendation a comprehensive plan for the northern barrage. This plan represented the result of continuous study by officers of the Bureau of Ordnance, and of frequent conferences between these officers and others concerned.

Again Rear Admiral Sims gives all the credit to the British Admiralty:

200: 45-48. In the agenda for the conference, prepared by Admiral Jellicoe, item two was that of a mine or net barrage, either in German waters or farther afield.

Note that the inclusion of the barrage among the subjects for discussion gives no clue as to its origin. Each of the members of allied conference had undoubtedly been consulted informally before this list was made out. It is the opinion of the Bureau of Ordnance that its plan, approved by the Chief of Naval Operations and in the hands of Admiral Mayo, was the reason for this inclusion of this item. In this connection a quotation from the British "History of the northern barrage from its inception to 28th July, 1918," issued by the Admiralty on August 4, 1918, is of some evidential value. After mentioning a study of antisubmarine measures made by Capt. Yeats-Brown, R. N., during July and August, the following statement is made:

The conclusions arrived at were brought up for discussion at the next allied naval conference by the First Sea Lord, who, it is believed, had previously discussed the matter with Admiral Mayo of the United States Navy.

But Rear Admiral Sims persists in giving priority to the British Admiralty and says:

200: 50-53. The British Admiralty put forward, as an alternative to a close offensive in German waters, the suggestion that the activity of enemy submarines might be restricted by the laying of an effective mine field or mine net barrage.

Note that the British conferees, apparently guided by the report of Capt. Yeats-Brown, were still talking about mine nets. Mine nets had been regarded by the Bureau of Ordnance as unpromising since before April 15, and even the experimental study of such devices had been stopped early in July.

Admiral Jellicoe's comments on the subject at this conference were not those of an active proponent. He said, quoting again from the British "History:"

I do not think we get many submarines by mines. * * * There is the alternative of laying a mine field in the North Sea, in a position where the enemy sweepers can not reach without running very considerable risk. In view of our present experience I do not think that would have much more result than our present policy; but if a mine is produced which is more effective against submarines than our own mines, the matter perhaps becomes somewhat different. * * * A great deal depends upon whether the mine is a satisfactory one. If we get a satisfactory mine it might be worth while laying a barrage when we get a sufficient number.

These are the words of one who wishes to discourage a plan without giving offense to its originators.

In the following statements Rear Admiral Sims continues to lay stress on the mine and give its perfection as a reason for the change of front, though that is not justified by the facts. He said:

201: 14-24. The description of the new mine, brought over by Admiral Mayo, gave an entirely new direction to the discussion, and before Admiral Mayo left he was provided with a plan, drawn up in a conference of allied officers, for a barrage of mines of this new type to be put across the North Sea.

On September 13 Admiral Mayo received a message from Admiral Benson, emphasizing the great possibilities of the new mine, stating that the British officers sent over to the United States to examine it had found it most satisfactory and urging that immediate action be taken. The result was a proposal by the Admiralty of a of a definite scheme for the northern mine barrage.

The statement that the plan was "drawn up in a conference of allied officers" is true only to the extent that the Navy Department's plan was discussed and modified in details. This occurred between September 5 and 15. On the latter date the Admiralty issued to Admiral Mayo a memorandum entitled "General future policy, including future mining policy," with an appendix, "Mine barrage in the North Sea." This memorandum followed very closely most of the features of the American plan, and it was regarded by the Navy Department as a "confirmation copy" of that plan. The changes in the details of this "definite scheme" were not in all cases improvements, and appear to have been dictated mainly by a lack of confidence in America's ability to carry out successfully its share of the joint operation it proposed. One change in particular was regarded by the Bureau of Ordnance as inviting certain failure. This was the proposal to leave patrolled area at the eastern end of the barrage in which only deep mines would be planted, instead of mining all the way up to the surface. The difficulty of maintaining an efficient patrol at this distance from Scotland would have been enormous, and after the British Admiralty became convinced that the supply of American mines was really forthcoming and not merely a bluff, the original Bureau of Ordnance plan of leaving only necessary "gates" close to the coast of Scotland was returned to.

Perhaps the most remarkable of all the statements giving credit to the British Admiralty which belongs to the American Navy is the following:

201: 41-45. That is to say, the mine barrage of the North Sea, the plan of which was drawn up by the British Admiralty and which had been proposed by the British Admiralty and which was taken home by Admiral Mayo, was held up for discussion to see whether the American Navy Department would agree to the laying of that barrage.

This statement that the British Admiralty originated the northern barrage is utterly false. The proof of this has been referred to just above. That Rear Admiral Sims was not always so ready to concede British claims in this connection is proved by his letter dated August 23, 1918, transmitting the British history referred to above, in which he said:

The Admiralty history does not appear to be complete from the American viewpoint.

Rear Admiral Sims in his testimony said that the Navy Department delayed without reason its adoption of the British barrage project. Here are his words:

201: 35-40. Seventh. Question of proposed mine barrage. Scotland to Norway, as presented to Navy Department, is not definitely concurred in, but careful consideration is being given to this particular subject, with a view to arrive at definite conclusion in regard to employment of the mine barrage, which measure is considered in principle to promise good results.

This paragraph, taken alone, appears to indicate delay. It conveys a wrong impression, for production of material by the American Navy was under way. The first large contract, that for 90,000 firing devices, was let on October 3, 1917, raising from 10,000 to 100,000 the total number on order.

The questions under discussion at this time between the Admiralty and the Navy Department were details as to location, patrol, and the like, where the changes introduced by the British promised to reduce the efficiency of the plan. It should be stated here that unannounced and arbitrary changes in the plan continued to be made by the British up to the very end of the project and caused extreme difficulty in the supply of suitable mines and anchors to meet demands made 3,000 miles away without much reference to material problems. The first effect of a difference of opinion in regard to a detail of the plan was usually to speed production so that either proposed type of material could be supplied without too much departure from schedule. Many changes proposed by the British Admiralty tended to restore the original plan as opposed to the complicated system of partially mined areas favored by the Grand Fleet.

Even after the British Admiralty approved of the plan for a barrage of mines alone, as a joint operation, Rear Admiral Sims said:

203: 42-44. The difficulty of cooperating with the Grand Fleet and of securing the consent of the commander of the fleet to laying mine fields with an untried electrical device in areas through which and over which the Grand Fleet necessarily might operate.

The difficulty of securing the consent of the commander of the Grand Fleet to laying any mine barrage was felt long after the project was under way.

Rear Admiral Sims was still hesitating and doubtful, even after approval of the project, for he says:

204: 27-32. It therefore was incumbent upon me to assure myself that before giving my concurrence, not only that it was a practicable project but that it promised to be reasonably effective and could be executed without serious detriment to the efficiency of the other antisubmarine measures which were already being carried out.

Although not plainly put, this appears to be an excuse for further delay due to Rear Admiral Sims, and implies that he was not yet convinced that the barrage even "promised to be reasonably effective." That Rear Admiral Sims was hesitating to decide in favor of the barrage on September 4, 1917, is shown by his statement at the allied naval conference of that date, and quoted in the British "History." He said: "It must be successful completely or it is not successful at all. Either the barrage is successful absolutely or it fails absolutely."

From this analysis of the testimony in regard to the northern mine barrage, it appears that the propositions apparently supported by Rear Admiral Sims are incorrect, and, that where a basis of fact exists which appears to support any of them, it does so only because of the method of presentation or because pertinent facts leading to a different interpretation have been omitted. The contrary propositions that the northern mine barrage was American in its origin, urgently recommended against British opposition and carried to success without delaying or hindering any other useful activity, are considered to have been abundantly proven.

RAILROAD BATTERIES.

The railroad batteries provided by the Navy Department were successful in their operations in France, as has been testified to fre-

quently, and especially in the two reports of the operation made by Gen. J. J. Pershing, United States Army. In his report dated November 20, 1918, he states:

Our large caliber guns had advanced, and were skillfully brought into position to fire upon the important lines at Montmedy, Longuyon, and Conflans. On the 6th a division of the First Corps reached a point on the Meuse opposite Sedan, 25 miles from our lines of departure. The strategical goal which was our highest hope was gained. We had cut the enemy's main line of communications, and nothing but surrender or an armistice could save his army from complete disaster.

And in his final report of September 1, 1919, to the Secretary of War, he states as follows:

The only guns of these types produced at home which reached France before the cessation of hostilities were one hundred and nine 75-mm. guns. In addition, twenty-four 8-inch howitzers from the United States reached our front and were in use when the armistice was signed. Eight 14-inch naval guns of American manufacture were set up on railroad mounts, and most of these were successfully employed on the Meuse-Argonne front under the efficient direction of Admiral Plunkett of the Navy.

GENERAL REMARKS.

The Bureau of Ordnance, it is thus seen, was working along lines well defined and laid out in instructions of the department from time to time, many of which were originated by the war plans provided the bureau in March, 1915.

The organization of the Bureau of Ordnance, during the time of peace was a workable organization and one made to operate with the least friction with view toward its operation during war. This aim was realized, in that the organization was never changed during the course of the entire war and it proved a workable and satisfactory method of handling ordnance material. It also showed that it could be enlarged without confusion to any degree desired. This organization simply linked together authority and responsibility directly and thus proved most adequate to meet all the situations that arose from time to time during the World War. It also controlled directly sufficient industrial plants to set a standard to which commercial firms entering the field of ordnance manufacture could follow, and provided the necessary skilled supervisors with which to do the work.

One reading much of the testimony before the committee can not help but feel that work of the Navy in the World War is belittled unnecessarily and that effort is being made to prove that the Navy did not enter wholeheartedly into the business of carrying on the war promptly, and that organization of the department was such as to not obtain best results. The organization of the bureau is considered to need no change and its relations with the Chief of Operations are considered to be proper and of the best, no friction whatever has arisen either during the war or peace. The directions of the Chief of Operations are always carried out wholeheartedly, and anticipated in large degree.

It is believed that the partial record of the bureau, as submitted heretofore, indicates that the bureau put every effort into getting ready for the war that could be legally done before February 3, and from February 3 to April 6, everything possible in any way that could be done was done, and it is possible to say more and go back in certain respects to midsummer of 1916, when the record made by Ordnance will stand the closest scrutiny by anyone. This record indicates no

waste of money or material, but rather that logical steps were taken with knowledge of war conditions existing and with deduced outlook into those that would arise in the future after our entry into the same.

That we, of the Navy, wasted no time in getting into the war is also testified to by extract of an article by Mr. H. M. Hyde, which appeared in the Chicago Daily Tribune under date of November 21, 1917, which is hereafter quoted merely as giving an outside opinion of the Navy Department's activities at that state of the war.

BIG ORDNANCE CONTRACTS.

To get down to cases, consider what the Navy has done and is doing in the matter of big guns and ammunition.

The Navy has so far let more than 800 ordnance contracts. That is, it has placed 800 odd contracts for big and little navy guns, for shells to shoot in them, for powder, bombs of various kinds, high explosives, and other implements of war. Some of these contracts were let long months before war was declared on Germany.

On each contract delivery at a certain specified time is called for, and a weekly report must be rendered showing exactly the progress of the work on each of hundreds of thousands—even millions—of items covered.

It is a fact—a most extraordinary and cheering fact—that out of 822 contracts there is only one on which the work is not advanced as far, if not farther, than it should be at this time.

SHOWING IS CREDITABLE.

One may take it for granted that the eager officers of the Navy who have such matters in charge allowed on all these contracts the shortest possible time. It means a great deal to say that in every case but one the job is up to or ahead of the schedule.

Such a record, one would be sure, could not have been made without careful foresight and planning. The facts are that the Navy in many of its departments began to get ready for war on a big scale a long while before anybody else woke up.

More than a year and a half ago, long before there was anything more than danger of war with Germany, the Navy started out on a big campaign. It canvassed all the machine shops and other factories which might be useful in making supplies and munitions for the fleets.

TRIES THEM OUT.

It made small trial contracts with many of them. It found out just what institutions in the United States were fitted in equipment and personnel to do work for the Navy.

Navy experts saw to it that the proper machinery was supplied and installed in proper quantities and that the proper number of machinists and other workmen were employed and trained to do the Navy work.

At the very first instant when it was legally possible—perhaps the clock was even set ahead a little—the Navy Department took advantage of the law under which it could advance money to private manufacturers for the enlargement of their plants, the advance to be paid back later out of the proceeds of the Navy contracts, and tied up a considerable number of big factories with huge orders for munitions and supplies.

CONTROL MANY FACTORIES.

To-day the Navy Department controls enough factories to fill every possible demand for guns, shells, munitions, and supplies. It has even made supplemental contracts with still other factories covering possible but still indefinite future increases.

Perhaps the greatest handicap experienced by the bureau in getting a start was the shortage of commissioned personnel available on duty in Washington. This, of course, was due to the continually recurring statements before Congress and in the papers of Washington that too many naval officers were on duty in that city. We suffered in the World War from having had insufficient officers on duty in Washington during the time of peace, and it is to be hoped that this great mistake will not be repeated in the future.

The department, especially so far as material bureaus are concerned, must have competent and sufficient number of officers on duty at all times to not only handle routine administrative affairs of the Navy but to carry on scientific research and investigation and make the Navy progress and maintain a position in the lead of all navies in the world. It is the shortage of officer personnel during the time of peace on duty at headquarters that is mainly responsible for any lack of preparedness, efficiency, or modernness of our Navy. Funds are sometimes available in sufficient amount but have various restrictions placed on their use which nullify and prevent their being applied to the best advantage. The greatest handicap that this bureau, at the present time, for example, is laboring under, is the restriction as regards employment of draftsmen and technical help in the bureau at the Navy Department. There is no restriction on the employment of draftsmen elsewhere than in the bureau, but it is manifest that in the bureau is the place where they should be employed and not outside where the knowledge that is available to the department can not be obtained by them.

In other words, the officer, the civilian technical, the design and the drafting staff should be maintained in sufficient numbers in time of peace to insure that the Navy is ready without fail in the time of stress. This condition should be established and maintained in being during peace. This material bureau requires aid along this more than any other line. Its realization will save millions when the next time comes.

PRESIDENT WILSON'S PLAIN TELEGRAM TO ADMIRAL SIMS.

From the date the United States entered the World War the President kept in close touch with all matters affecting naval policies and was keen in proposing and following up plans for new, bold and audacious methods against the submarines. He was familiar with the cablegram I sent to Admiral Sims in April, 1917, suggesting plans for shutting the submarines up in German waters, the plan proposed by the Bureau of Ordnance in April, 1917, for a barrage across the North Sea, and the earnest desire of the Navy Department to run any risk to secure the adoption of daring and effective offensive measures. The new and bold measures suggested by the Navy Department in the spring of 1917 were all pronounced "impracticable" by Admiral Sims, who reported that the British Admiralty declined cooperations because they were "unfeasible" or "impracticable," though they were finally accepted after much pressure by the Navy Department and proved the most effective offensive against the submarine.

The President believed so strongly in new and offensive measures that the attitude of Admiral Sims in opposing the really great plans proposed by the department led him to send the following plain telegram to Admiral Sims in July, 1917:

WASHINGTON, July 4, 1917.

From the beginning of the war, I have been greatly surprised at the failure of the British Admiralty to use Great Britain's great naval superiority in an effective way. In the presence of the present submarine emergency they are helpless to the point of panic.

Every plan we suggest they reject for some reason of prudence. In my view this is not a time for prudence but for boldness even at the cost of great losses.

In most of your dispatches you have quite properly advised us of the sort of aid and cooperation desired from us by the Admiralty. The trouble is that their plans and methods do not seem to us efficacious. I would be very much obliged to you if you would report to me, confidentially, of course, exactly what the Admiralty has been doing, and what they have accomplished, and, added to the report, your own comments and suggestions, based upon independent thought of the whole situation, without regard to the judgment of anyone on that side of the water.

The Admiralty was very slow to adopt the protection of convoy and it is not now, I judge, [protecting] convoys on adequate scale within the danger zone, seeming to keep small craft with the Grand Fleet. The absence of craft for convoy is even more apparent on the French coast than on the English coast and in the Channel. I do not see how the necessary military supplies and supplies of food and fuel oil are to be delivered at British ports in any other way within the next few months than under adequate convoy. There will presently not be ships or tankers enough, and our shipbuilding plans may not begin to yield important results in less than 18 months.

I believe that you will keep these instructions absolutely and entirely to yourself, and that you will give me such advice as you would give if you were handling and if you were running a navy of your own.

WOODROW WILSON.

Admiral Sims's reply was a long telegram of generalities of what the British Admiralty was doing. He told of a "combined sea and land attack to force back the German right flank and deny them the use of Zeebrugge as a provisioning base." That was the kind of bold and audacious thing the President and the department had been urging from our entrance into the war, but even then, as Admiral Sims said, it had not been "definitely decided by the war council," though the daring and successful attack on Zeebrugge came much later. It might have been a different story if it had been undertaken earlier when the Navy Department was urging some such bold plan, all of which Admiral Sims thought "impracticable" when proposed and urged by our Navy.

In his answer to the President, referring to the American Navy's plans for preventing the egress of the German submarines, which, in 1918, were successfully carried out, Admiral Sims cabled: "I have been shown studies of the proposed plans and I consider them impracticable," and evidently sought to discredit the Navy Department's plan by saying:

These same suggestions and many similar ones have been and continue to be made by people of all classes since the beginning of the war.

Instead of accepting the department's suggestions of great offensive plans, or originating some plan that promised to stop the egress of German submarines, his mind was closed as the above and many other extracts show, to every plan looking toward the great offensive which in the fall of 1918 was the most effective foe of the submarine.

Admiral Sims cabled the President that the proper policy to pursue was to adopt the suggestions he had made to the Navy Department, most of which had been decided upon and put in operation before Admiral Sims had suggested them, and Admiral Sims added that we should adopt an organization "similar in all respects to the British squadron," virtually transfer all naval authority to his headquarters in London, and that he should be given a larger staff. He was careful not to say, though he regarded the Queenstown base and surroundings as "the critical area," that as rapidly as American destroyers arrived in this critical area the British destroyers were removed to another base, though he now makes the preposterous statement that the failure to have more destroyers in that critical area (we had 34 at that time out of our total 50) occasioned the loss of 500,000 lives,

and fifteen hundred thousand or billion or trillion, or quadrillion dollars—I don't know how much, it is so absurd.

There are two remarkable and significant statements in his cable to the President, particularly significant in the light of his later letters and statements:

1. He cabled the President that the views he had expressed were "in all cases an independent opinion," and in the very next paragraph showed how "independent" his opinion was when he said—I am quoting his exact words—it was "based upon specific facts and official data which I have collected in the Admiralty and other government departments" (meaning the British). He closed the paragraph by saying: "They constitute my own conviction and hence comply with your request for an independent opinion."

2. He also cabled the President as follows, and, gentlemen, I wish you to bear in mind that this is an admiral of the American Navy telegraphing to the President of the United States, the commander of the American Navy. He cabled the President as follows [reading]:

Depend upon the fact, which I believe to be true, that regardless of any future developments we can always count upon the support of the British Navy. I have been assured this by important government officials.

This is the most remarkable of all the abundant evidence that Admiral Sims was so hypnotized by British influences that he was willing to try to lure the President of the United States into the feeling that "regardless of any future developments, we can always count upon the support of the British Navy." He not only expresses it in a childlike and bland way as his opinion, but gravely also stated that he had "been assured this by important government officials." It would be interesting indeed to know what British "government officials" assured him that "regardless of any future developments" the United States can always count upon the support of the British Navy. It seems inconceivable that any admiral could have regarded such assurance as worth paying the tolls to transmit. Every school-boy should know that no government official in a democratic government could pledge his country's navy to support another government "regardless of any future developments." It is to be hoped that if Admiral Sims has such assurance he will send a copy of the pledge in writing with the name of the "important government officials" appended thereto to be filed in the archives of "Sops for the simple."

It is, indeed, to be hoped that the navies which fought together in the World War will always be employed in cooperation to effect the world's peace, but, without a binding League of Nations, no man not hypnotized believes that the navy of one country "regardless of any future developments," will be at the service of another country. This statement, however, shows how completely and absolutely and hopelessly Admiral Sims was under the spell of influences which made him believe that the British Government could be depended upon more to take care of America rather than that America should depend on her own strong right arm. It is one thing, Mr. Chairman and gentlemen of this committee, to cooperate heartily and upon equal terms with the navy of another country. That was the Navy Department's attitude throughout the war. It is quite another thing to be absorbed in belief in the infallibility of another country and to have an obsession of its supposed superiority. That was the

attitude of Admiral Sims as evidenced by his own statements and action.

That attitude of acceptance of everything British undoubtedly accounts for his opposition to the creation of an independent American Army and his idea that the American troops sent abroad should be used as an annex to the British Army, quoting Gen. Bliss as recommending that policy. When Gen. Bliss read in the published testimony that Admiral Sims had quoted him as advocating such a policy, he wrote at once to the Secretary of War a letter in which, after quoting the testimony of Admiral Sims, Gen. Bliss said:

Not only at no time did I make any recommendations for the brigading of American troops with the British Army, but the truth is exactly the reverse.

To that attitude, too, is to be attributed his statement to Hon. C. C. Carlin, then Member of Congress from Virginia, that America did not need to build a big Navy because our country could depend upon the navy of Great Britain.

It is likewise true that the same mental attitude accounted for the statement Admiral Sims made to Congressmen Byrne and Whaley and Senator Glass when they were abroad during the war, as stated by Congressman Byrnes:

He (Admiral Sims) expressed the hope that we would not be led astray by the agitation for a merchant marine. He declared that England, because of her geographical location, must necessarily control the seas, said that we could rely upon her at all times providing a merchant marine to transport our goods to foreign markets. When I took issue with him he stated that even if we entertained the view that it would be desirable for the United States to possess a merchant marine, that it was impossible because we could not compete with Great Britain; that it would be necessary to pay subsidies, for which our people would never stand; and that it was the part of wisdom for us to develop the great West and leave the sea to Great Britain. With that government, he said, we would never have any trouble, and Great Britain could be depended upon at all times to care for our business upon the seas.

The President's plain telegram quoted above, conveying his dissatisfaction with the policy of "prudence" instead of "boldness" and his earnest belief in audacious policies, evidently caused Admiral Sims to believe that the President would recall him to America. This is made plain by the following letter which Admiral Sims wrote to Ambassador Walter H. Page:

UNITED STATES NAVAL HEADQUARTERS,
London, August 7, 1917.

MY DEAR DR. PAGE: In the first place, let me congratulate you on your "Mayflower" speech. It was highly original and just the kind of common-sense "dope" that is needed on both sides of the water.

I particularly like the idea of having some proper history books written for the small Americans and Britishers.

I remember the hard jolt Max O'Rell gave the British public by publishing extracts from their school histories to show that the poor children were taught to hate and despise the French.

I inclose you two articles by prominent naval writers on the subject of "Digging the rats out of their holes."

Now, Mr. Chairman, I would like to emphasize the following two paragraphs [continuing reading]:

In this connection I have a suggestion to make—

Now, this is an admiral of the American Navy writing to the American ambassador in London—

I have received word, practically directly from the President, that he was much displeased with my reply to his cablegram, that it did not change his opinion at all,

and that he regards me as owned by the Admiralty and so pro-British that he considered the advisability of replacing me by some other officer.

My suggestion is that you send the inclosed clippings to Mr. Lansing, with the idea that he may show them to the President.

In any case this can do no harm, and it may do some good.

I hope you are fully enjoying your vacation. Please give my kindest regards to Madam Page, and believe me,

Very sincerely, yours,

WILLIAM S. SIMS.

SIMS TOLD CONGRESSMAN CARLIN THAT ENGLAND HAD PROTECTED US ON THE SEAS, AND WE COULD ALWAYS RELY UPON HER TO DO SO.

I have furnished your committee with statements by Admiral Sims himself, addressed to the President of the United States, showing his belief that the United States could depend upon the British Navy under all circumstances.

I have furnished you with his statements in which he advocated brigading our soldiers with the British, which policy he incorrectly attributed to Gen. Bliss, and which Gen. Bliss repudiated.

You have read the statements of Senator Carter Glass and Congressmen Byrnes and Whaley, who said, as stated by Mr. Byrnes:

On October 30, with my colleagues, I saw Admiral Sims, who was then in Paris. I shall never forget that interview. The armistice had been requested by the enemy. Sims told us of the magnificent progress made by the British on the English front, and as we listened he proceeded to tell us that the armistice would have to be granted because Pershing had been unable to break through the German lines, owing to the absolute breakdown of transportation behind the American lines. With pathos in his voice he told us how unfortunate it was that this breakdown occurred at so critical a moment. In amazement we listened, and in the monologue he delivered he proceeded to tell us that while the Americans believed their Navy was working wonders, that as a matter of fact we had but 3 per cent of the antisubmarine craft in English waters; that Great Britain had brought over two-thirds of our troops and had escorted one-half of them.

In his hearing before this committee Congressman Byrnes told you:

Not satisfied with telling us how small a part we played upon the sea in time of war, he proceeded to tell us that in time of peace we should seek to play no part at all. He expressed the hope that we would not be led astray by the agitation for a merchant marine. He declared that England, because of her geographical location, must necessarily control the seas, and that we could rely upon her at all times providing a merchant marine to transport our goods to foreign markets. When I took issue with him, he stated that even if we entertained the view that it would be desirable for the United States to possess a merchant marine that it was impossible because we could not compete with Great Britain; that it would be necessary to pay subsidies, for which our people would never stand, and that it was the part of wisdom for us to develop the great West, and leave the sea to Great Britain. With that Government, he said, we would never have any trouble, and Great Britain could be depended upon at all times to care for our business upon the seas.

In addition to the statement you already have in the record, I will read you now the statement of another prominent and able Member of Congress, who visited Europe during the war, Hon. C. C. Carlin, of Virginia, who was told by Admiral Sims that—

As compared with the British Navy, and our achievements had amounted to but little during the war; that England had protected us upon the seas and we could always rely upon her to do so, and that in view of this friendship there was no necessity for us to desire a Navy which would in any way equal that of Great Britain.

The full letter of Hon. C. C. Carlin is as follows:

WASHINGTON, D. C., April 20, 1920.

HON. JOSEPHUS DANIELS,
Secretary of the Navy, Washington, D. C.

MY DEAR MR. SECRETARY: It has been in my mind some time to write you with reference to a conversation I had with Admiral Sims in London, in December, 1918. At that time I was a Member of Congress, had been reelected to the present Congress, and was traveling with my young son in Europe.

While in London I went to the American Embassy to inquire as to Admiral Sims's headquarters, as I wished to call and pay my respects. Just as I was leaving the embassy, on my way to Admiral Sims's office, I met the admiral in the street, stopped him and introduced myself, and then entered into a conversation with him, which lasted about 5 or 10 minutes. During the conversation, which was almost exclusively with reference to our Navy and its operations, in my enthusiasm I remarked that our Navy had been of great importance during the war and had accomplished splendid results. The admiral promptly disabused my mind of this view, and while I do not attempt to quote him exactly, yet I recall distinctly that his statement was to the effect that our Navy was small and ineffective, as compared with the British Navy, and our achievements had amounted to but little during the war; that England had protected us upon the seas and we could always rely upon her to do so, and that in view of this friendship there was no necessity for us to desire a Navy which would in any way equal that of Great Britain. I was surprised at the admiral's statement and politely but plainly told him so. When I bid him good-by I remember that I stated to my son, who was with me, that the admiral should be in the British Navy and on their pay roll and not on ours.

I do not know whether you care to make use of this letter, but as I am strongly of the opinion that the American people are entitled to know the full viewpoint of Admiral Sims with reference to our Navy, you are at liberty to make such use of it as you may see fit.

Sincerely, yours,

C. C. CARLIN.

I have put it in the record.

SIMS ORIGINATED NO NEW PLANS OR POLICIES.

If Admiral Sims originated a single one of the important policies or first suggested one important measure the United States Navy put into effect during the war, I can not recall it.

The most important things done by the Navy during the war, all of which originated in the Navy Department, were:

1. Close cooperation with the Allies.

This had been decided upon, in case of war, long before war was declared, and before Sims ever went abroad. In fact, he was sent to London in pursuance of this policy.

(See Admiral Sims's letter of Jan. 7, 1920, pars. 6 and 8.)

6. In the latter part of March, 1917, in response to a request from the American ambassador in London, expressing the desire of the British Government that a naval officer of high rank be sent to secure the closer cooperation which our Navy Department had suggested—

Now, bear in mind, Mr. Chairman, he says "which our Navy Department had suggested"—

I was ordered abroad on barely 48 hours' notice.

8. I assumed that my mission was to confer with the heads of the allied navies to learn the actual situation and to discuss means for naval cooperation in case the United States declared war against the Central Powers.

This cooperation was put into effect on this side of the water and a thorough working agreement had been arranged with the British and French Navies before the Navy Department ever heard a word from Admiral Sims, except the one-line cable announcing his arrival.

Sims arrived in London April 10, 1917. His first dispatch regarding the situation was sent April 14. War was declared April 6, and

we immediately got in touch with the representatives of the Allies in Washington, and arranged a conference with the commanders in chief of the British and French forces in the western Atlantic, Vice Admiral Browning, and Rear Admiral Grasset. Admirals Benson, Mayo, and Wilson, conferred with them at Old Point, Va., April 10, the day Sims reached London, and the next day all these admirals held a conference with the Secretary of the Navy and the General Board in the Navy Department at Washington. Within the week after war was declared the allied and American naval representatives had discussed the whole situation; we had asked them to tell us how best the United States Navy could aid them and the allied cause, and we had agreed at once to their suggestions. This agreement had been concluded before we ever heard from Sims.

The day before Sims sent his first dispatch from London, Admiral Browning, British commander in chief in the western Atlantic, had sent the following dispatch to the British Admiralty, detailing the agreement for cooperation:

APRIL 13, 1917.

The Commander in Chief to the naval attaché, via Ambassador, Washington.

Your 246. Following are points of agreement arrived at with United States Navy Department; French admiral sending telegram to Paris; question raised with British Admiralty:

(1) One squadron immediately ready to proceed from North Atlantic port on receipt information of escape raider. Operations this squadron will be coordinated with allied squadrons. Area of operations, Cape Sable to longitude 50° west, thence south to parallel 20 N. E.

(2) Second squadron on coast of South America will be provided as soon as possible in near future. Area from Brazilian coast parallel 5 south to meridian 30 west, thence south to 15 south, etc.

(3) Six destroyers will be sent over in immediate future, based on British and French ports.

(4) United States will look after west coast of North America from Canadian to Colombian boundaries.

(6) United States China squadron be maintained for present.

(7) United States supervise Gulf of Mexico and Central America.

(8) On appearance enemy submarine to send submarines to Canadian coast, etc. Small patrol vessels for French coast will be supplied when available. Armed naval transport for carrying railway material to France to be furnished.

(NOTE—Paragraph (5) is omitted, as it relates to another country, and ought not to be printed.)

The Secretary of the Navy, the Assistant Secretary of the Navy, Admiral Benson, Chief of Naval Operations, Admiral Mayo, commander in chief of the United States Atlantic Fleet, Admiral Wilson, commander of the patrol force, and the members of the General Board took part in these negotiations, and the British and French representatives were impressed with our earnest desire to do everything possible to aid the Allies. In fact, we strove to do more than they asked. Admiral Browning suggested that one or two American destroyers be sent. Admiral Benson and Admiral Mayo agreed with me that we would not like to send less than a division, and we agreed to send a division (6) and orders were given at once. On April 14, the Eighth Division, destroyer force, sailed for its home yards to "fit out for distant service." As agreed upon, we promptly took over the patrol of the western Atlantic, relieving British and French vessels then engaged in that patrol, to other duty. We took over the patrol of the Pacific (west) coast from Canada to South America. We brought the

major part of the Pacific Fleet, under command of Admiral William B. Caperton, to the Atlantic and took over the patrol against raiders of the Gulf, Caribbean, and the east coast of South America; we supervised allied interests in the Gulf of Mexico and Central America. We sent armed yachts to the French coast as soon as they could be secured, and converted into patrol vessels. Every feature of this agreement was carried out promptly.

I might add, Mr. Chairman, that at the conference at the office of the General Board, attended by all these gentlemen, we had maps on the wall, and about 95 per cent of the conversation in that conference was with reference to our taking over the protection of this coast. You will recall that all during the war the British and the French had kept ships on this side of the Atlantic to protect commerce, and the chief thing they desired us to do, and what they put most emphasis upon, was that we should take charge of patrolling the coast from Canada to South America, the Caribbean and the Gulf of Mexico, so that they could release their ships and take them back to service on the other side of the ocean.

SENDING ANTISUBMARINE CRAFT TO EUROPEAN WATERS.

We had decided on the policy of sending antisubmarine craft to the war zone before we ever heard a word from Admiral Sims. The orders to the Eighth Division, Destroyer Force, were issued before Sims's first dispatch was received.

Even though Sims, in his first dispatch (dated London, April 14) had informed us, "It was very likely the enemy will make submarine mine-laying raids on our coast or in the Caribbean," and we realized that the Germans could at any time send U-boats to attack our coasts, his recommendation that the "maximum number of destroyers be sent" was in accord with our own ideas and policy. The department cabled him on April 16:

Yours of noon 14th April will be given earnest and serious attention.

We followed entirely the recommendations Sims made in his dispatch of April 16, which read as follows:

Strongly advise that any destroyer or other patrol forces sent this side do not base on French coast but as far to westward as practicable south coast Ireland to operate principally in designated high-sea area in zone to westward and southward which is present critical area.

All the destroyers we dispatched in the next three months were sent to Queenstown for operation in that area, and were put under direct command of the British commander in chief of the coasts of Ireland, to secure the highest degree of cooperation.

Admiral Sims sent, as he says, on April 15, 17, 23, and 24, dispatches all of the same tenor requesting additional forces. We were carefully considering all our resources, to determine the maximum number of effective antisubmarine craft we could send to Europe in the shortest time. All Sims's dispatches were taken into consideration, but they were general in their nature, and it was not until his dispatch of April 28 that he mentioned definite numbers, and stated that the British Admiralty and war council had "decided"—now, I wish to emphasize this: on April 28 he said that the British Admiralty and war council had decided—

That cooperation of twenty-odd American destroyers with base at Queenstown would no doubt put down the present submarine activity, which is dangerous, and keep it down.

The Eighth Division (six destroyers) had sailed four days previous and arrived at Queenstown on May 4. On May 7 another division sailed, and by the end of May 30 vessels—28 destroyers and 2 destroyer tenders and repair ships had either arrived at Queenstown or were on the way. Although we sent 30, Admiral Sims had told us on May 28 that the Admiralty and the war council wished 20, and stated there was no doubt that if we would send 20 they could put down the submarine activity and keep it down.

Thus we had dispatched, within a month, more than the British war council and Admiralty had decided were needed to "put down" the dangerous submarine activity in that area and "keep it down."

THIRTY VESSELS ON THE WAY BEFORE END OF MAY.

Following is a list of United States naval vessels which sailed for duty in European waters in April and May, 1917:

Name.	Type.	Date of sailing.	Name.	Type.	Date of sailing.
Conyngham.....	Destroyer.....	Apr. 24, 1917	Cushing.....	Destroyer.....	May 15, 1917
Davis.....	do.....	Do.	Nicholson.....	do.....	Do.
McDougal.....	do.....	Do.	O'Brien.....	do.....	Do.
Porter.....	do.....	Do.	Sampson.....	do.....	Do.
Wadsworth.....	do.....	Do.	Drayton.....	do.....	May 21, 1917
Wainwright.....	do.....	Do.	Jenkins.....	do.....	Do.
Cassin.....	do.....	May 7, 1917	Patterson.....	do.....	Do.
Erricson.....	do.....	Do.	Paulding.....	do.....	Do.
Jacob Jones.....	do.....	Do.	Tripp.....	do.....	Do.
Rowan.....	do.....	Do.	Warrington.....	do.....	Do.
Tucker.....	do.....	Do.	Sterrett.....	do.....	May 23, 1917
Winslow.....	do.....	Do.	Walke.....	do.....	Do.
Melville.....	Destroyer tender.	May 11, 1917	Jarvis.....	do.....	May 25, 1917
Benham.....	Destroyer.....	May 15, 1917	Perkins.....	do.....	Do.
Cummings.....	do.....	Do.	Dixie.....	Destroyer tender.	May 31, 1917

Total, 30 vessels—28 destroyers and 2 destroyer tenders.

BRITISH HAD ONLY 4 TO 15 DESTROYERS AT QUEENSTOWN.

How many destroyers did the British have fighting submarines and protecting shipping at this "critical area"?

Admiral Sims, in his book, *The Victory at Sea* (World's Work for September, 1919), says the British had, when we entered the war, in April, 1917, about 200 destroyers, the use of which had been determined as follows:

In April, 1917, the Admiralty had decided to give the preference to the Grand Fleet, the hospital ships, the channel crossing, and the Mediterranean, practically in the order mentioned. It is evident from the figures given that all but about 10 or a dozen destroyers must have been used in these three areas. It was for this reason that the great zone of trans-Atlantic shipping, west and south of Ireland, vitally important as it was, had to go almost unprotected. Sometimes only four or five destroyers were operating in this great stretch of waters; I do not think the number ever exceeded 15.

Then Admiral Sims goes on to say:

The area of the destroyer patrol off Queenstown comprised about 25,000 square miles; in other words, the complete protection of the trans-Atlantic trade routes would have taken about 25,000 destroyers. And the British, as I have said, had available anywhere from 4 to 15 in this area."

AMERICANS FURNISH PRACTICALLY ENTIRE QUEENSTOWN FORCE.

Admiral Sims states (p. 55, *World's Work* for November, 1919)—I would like to emphasize this. He states as follows:

Not long after our destroyers arrived at Queenstown most of the British destroyers left to reinforce the hard-driven flotillas in the Channel and the North Sea, so that the destroyer forces under Admiral Bayly became almost exclusively American.

SIMS'S OWN FIGURES CONTRADICTIONARY.

Admiral Sims, in his testimony before this committee, when asked how many destroyers we had in European waters by the end of June, said we had 20. Your committee would not be justified in inferring from this that he lost the other eight that had been sent. Stating that he had only 20 when the records show 28 were at Queenstown the first week in June is remarkably accurate for Admiral Sims. Though the "Summary of activities of United States naval forces operating in European waters," made up and issued by his own headquarters for the information of the press just before he left London in 1919, states that our total forces in European waters July 1, 1917, were 22 vessels—20 destroyers and 2 tenders and repair ships—and that we had only 30 destroyers there by October 1, Admiral Sims, in his magazine articles entitled "The victory at sea," states (*World's Work* for November, 1919, p. 61):

By July 5 we had 34 destroyers at Queenstown.

And he has told that the British Admiralty and the war council had said that if we would send 20 there was no doubt that the submarine trouble could be put down and kept down.

Great Britain had some 350 destroyers when we entered the war in 1917. The following table shows the number of British destroyers that were based on Queenstown from April 1 to October 1, 1917:

Apr. 1, 1917....	0	June 1, 1917...	1	Aug. 1, 1917...	2	Oct. 1, 1917...	0
May 1, 1917....	0	July 1, 1917...	4	Sept. 1, 1917...	0		

Look at that. How many did they have based on Queenstown on April 1, 1917? None. How many did they have on May 1, 1917? None. How many did they have on June 1, 1917? One. How many on July 1, 1917? Four. How many did they have on August 1, 1917? Two. How many on September 1, 1917? None. And on October 1, 1917? None.

ESTABLISHMENT OF NAVAL BASES.

The most important naval bases we established in Europe, so far as concerned American shipping and transport, were those at Brest and Bordeaux. It was through these ports that American troops poured by hundreds of thousands, and supplies and materials by millions of tons. Yet one of the complaints Sims voices in his letter of January 7 is that we announced our intention to establish these bases not only without waiting for his recommendation, but when he had recommended otherwise. In his letter he says (par. 64):

64. For example, on May 8, without previous explanation—

Of course we never did stop to make explanations to Sims when we had a policy to carry out—

the department announced its intention to establish naval bases at Bordeaux and Brest, although on May 5, it had been informed of the results of a conference with the French naval authorities and their agreement that our forces should remain concentrated at that time in the area of greatest enemy activity.

He cites this as an instance of "the department's dealing directly from Washington with European naval officials in Europe," instead of depending entirely upon "its own representative" (himself). As a matter of fact the said "European naval officials" were not in Europe but in Washington. They were members of the special war missions sent over by France and Great Britain, and were far more familiar with the situation than Sims was. They had come fresh from Europe, charged with the duty of making exactly such arrangements as this directly with the Navy Department. It was apparent to them and to us that the transportation and supply of a great American Army would make the use of French ports, and the establishment of naval bases at the ports most suitable, a matter of the highest importance. As we wanted to set about this as soon as possible, we determined, on their advice, to establish at once temporary bases at Brest and Bordeaux. But before the final decision was made, we not only notified Admiral Sims, but asked his advice. Following is the dispatch [reading]:

MAY 7, 1917.

Admiral Sims, *London*.

French have requested and department contemplates establishing temporary base at Bordeaux and at Brest, one line officer in charge, one pay officer, one engineer officer. What do you advise? Expedite reply.

JOSEPHUS DANIELS.

Sims's reply was as follows:

To: Secretary Daniels.

While it is very desirable to establish temporary bases Brest and Bordeaux, necessary repair, supply and fuel vessels should not be on that account diverted in any way from mobile destroyer base. It is most urgent that destroyer force remain concentrated with mobile base ready to follow any movement of main submarine activity in high-sea trade routes.

Services of Capt. Pratt and aid urgently needed and I respectfully request information as to their probable date of arrival. 16008.

SIMS.

This dispatch, as well as the one he says he sent May 5, but which was not received by the department until May 8, reveals that the reason for his protests was not that these bases were not highly important, but that their establishment threatened to conflict with a scheme he had arranged, without waiting for the approval of the department, for the concentration of all our forces in British waters. Here is the dispatch he dates May 5, and which was received May 8:

Secretary DANIELS:

Our relations with the minister of marine very satisfactory. Conferences with minister and chief of staff and the French naval attaché at London, England, the British naval attaché at Paris, France, and the First Lord of the Admiralty, resulted in unanimous agreement our destroyers to remain concentrated and attack enemy submarines in whatever area they may be operating in greatest numbers probably principally in area from south to west northwest of Fastnet. I arrive in London May 6.

SIMS.

YEAR LATER ADMITTED BREST WAS BEST BASE FOR ESCORT VESSELS.

For months after Brest had become the center of American troop and supply activities, Sims continued to base all our destroyers on Queenstown. It was more than a year after we entered the war before he consented to transfer any considerable number of destroyers from Queenstown to Brest. In his letter to Admiral Bayly, of the British Navy, June 1, 1918, detailing why he felt compelled to transfer a part of the destroyers, under his command, Sims sets forth in detail the decided advantages of Brest over Queenstown as a base for escort vessels.

In that letter he said: -

Referring to your letter of May 29, concerning the relative advantages and disadvantages of escorting troop convoys by destroyers based on Queenstown and on Brest, I have had this matter analyzed by Commander Long, in consultation with the convoy section of the Admiralty, and I inclose herewith two memorandums covering these points. I also inclose your letter of the 19th, as you may not have retained a copy of it.

From an examination of these memorandums, it now seems that it would be really advantageous to base the escorting destroyers for our troop transports on Brest.

We had advocated that all along.

You will note from the inclosed memorandums that a troop escort based on Queenstown steam approximately three legs of a triangle as follows: Four hundred and eighty miles to the rendezvous not escorting; 600 miles to the French port, escorting; 380 miles back to Queenstown not escorting; in all 860 miles not escorting and 600 miles escorting—1,460 miles in all.

With the destroyers based on Brest, the legs of the triangle are as follows: Five hundred and ten out to the rendezvous escorting troops into the coast; 150 miles returning to Brest from St. Nazaire in case the latter port is the port of destination. In all this is 1,110 miles escorting and about 150 miles not escorting, a total of 1,260 miles.

From this it is evident that destroyers based on Brest can be used with much greater economy of both destroyers and oil.

Now Admiral Sims learned all that a long time after we had determined to put it into effect in Washington.

SENDING OF FORCES TO GIBRALTAR.

Gibraltar was the gateway of the Mediterranean through which passed one-fourth of all the allied shipping in the world. If we were to make our forces effective in carrying on the convoy system, it was essential that we establish a base and send forces there. You would have thought that one of the first suggestions from Sims, after the practicability of convoy was demonstrated, would have been in sending of forces to Gibraltar. Not only did he not recommend this, but complains because the department initiated this activity. He says in his testimony:

The first indication that I had that the department intended to send forces to Gibraltar was in a message of July 5, in which they said:

"Department is strongly impressed with the necessity for adequate antisubmarine patrol in and off entrance to Gibraltar. Ten vessels are available to send across, if considered that they can be of value."

The point to be emphasized here is the fact that such a decision as to disposition of forces in European waters, was made by the department, without reference to their representative abroad, who was in a position to thoroughly understand all individual allied requests for assistance, and determine priority in accordance with departmental instructions and the needs of the situation.

I replied to this, after consultation with the Admiralty, that the vessels of the gunboat class, named by the department, would be very useful for antisubmarine work at Gibraltar.

Very useful, the admiral thought. We knew it here, and decided to send them over before he complained about it [continued reading]:

I realized that this was a digression from the policy which I had been insisting upon the start, of concentrating all reinforcements in the critical area. However, I felt that I could not possibly explain the necessities therefor any more fully or clearly, and it seemed now to me that I should grasp any opportunity of getting forces across the ocean. Their subsequent disposition could be determined later. It was quite true that forces were needed urgently in all areas. The lines of communications to the armies in the near and far East were being hard hit at this time by submarine operations in the Mediterranean. It was simply a case of accepting the best that could be obtained.

It was accordingly informed by the department on July 14, 1917, that 11 vessels, which had been named in previous messages, and included gunboats and light cruisers, had been directed to prepare for distant service under the command of Admiral Wilson, and would sail for Gibraltar at the earliest possible date.

Events thoroughly proved the wisdom of establishing the base at Gibraltar, Brest, and Bordeaux and sending forces there as early as possible, and showed how mistaken was the policy urged by Admiral Sims, that all our forces be "concentrated" in British waters.

TROOP TRANSPORTATION.

The great machinery of troop transportation, the cruiser and transport force, was initiated by the Navy Department, organized, built up, and operated not by Admiral Sims, but by other officers not under his command. His duty in this connection consisted solely of arranging routes, and providing escort vessels through the submarine zone, and in the performance of this latter and vitally important duty he had to be reminded, time and again by the department—bear this in mind, now, gentlemen, that with reference to the duty of protecting American troops in transport through the submarine zone, Admiral Sims had to be reminded time and again by the department—that the paramount duty of our destroyers, with which nothing must interfere, was the fullest protection of ships carrying American troops. Capt. Pratt and other naval officers have told you that carrying and safeguarding troops to France was the greatest service rendered by the Navy during the World War.

TRANSPORTING SUPPLIES AND MUNITIONS TO EUROPE.

Cargo transportation of supplies, materials, and munitions for the American forces in Europe and the allied armies was initiated by the Navy Department, organized and operated, not by Admiral Sims, but by other officers not under his command. The Naval Overseas Transportation Service, which embraced the largest ocean-going fleet in the world, was built up by the Navy Department; and was not suggested by Admiral Sims, whose only duty in connection therewith was in routing and providing escorts for convoys.

THE NORTH SEA MINE BARRAGE.

The North Sea mine barrage, the largest ordnance project of the kind ever accomplished and the most important measure that could have been taken to curb the submarines, not only was initiated in

the Navy Department, but was carried out by the Bureau of Ordnance, and the United States Navy's mine force laid four-fifths of the barrage. This was not only not suggested by Admiral Sims, but he actively and strenuously opposed it; rejecting the propositions we made in April and May, 1917, as unfeasible, and he carried his opposition in for the naval allied conference in London, September 4-5, 1917, at which Admiral Mayo, presented the proposition. The opposition of Sims and the British Admiralty resulted in six months' delay in the adoption of the plan we proposed for a barrage across the North Sea.

BUILDING UP A NAVAL PERSONNEL OF OVER 500,000.

The unprecedented increase in personnel, which resulted in building up a Navy of over 500,000 enlisted men and 32,000 officers; their enlistment and training was inaugurated and carried out by the Navy Department, and the recruiting and training campaign was under way before Admiral Sims was sent to Europe. As Capt. Laning and Capt. Palmer have shown, if, as Sims requested nearly all our experienced officers had been sent to Europe in the first year of the war, the training of such a large force would have been impossible.

CONSTRUCTING 1,000 WAR VESSELS.

The Navy Department, before Admiral Sims was ever sent to London, determined upon the building of large numbers of antisubmarine craft, and in March—in March, bear in mind, before we entered the war—and early in April let the contracts for 355 submarine chasers and all the destroyers that were then authorized by Congress. The vast building program, which involved 1,000 war vessels, was determined upon by the department, on its own initiative, and carried out under the direction of Admiral Taylor, Chief of the Bureau of Construction and Repair, and Admiral Griffin, Chief of the Bureau of Steam Engineering.

UNITED STATES NAVAL RAILWAY BATTERIES.

The United States naval railway batteries of 14-inch guns, the largest mobile artillery ever built and the most powerful artillery used by the Allies on the western front, were designed and constructed by the Navy Department and manned and operated by forces organized and trained here. The suggestion of creating these batteries was made by the Bureau of Ordnance, under whose supervision they were built, shipped to France, and there set up. They operated with the allied and American armies, under direct command of Admiral Plunkett. Sims had nothing to do with their building or operation.

SENDING NAVAL AVIATORS TO EUROPE.

The department had decided upon the building up of a large aviation corps and the sending of naval aviators to Europe before it ever received from Admiral Sims any suggestion as to sending aviators abroad. Though we had few trained aviators and mechanics, we

sent aviators abroad within two months after war was declared, and the naval aviation detachments which reached Bordeaux and St. Nazaire the first week in June, 1917, were the first of the American armed forces to land in France.

ARMING AMERICAN MERCHANT SHIPS.

The arming of American merchant ships for protection against submarine attack, not only the most effective method of protection before the convoy system was adopted, but practically the only measure we could take before the declaration of war, was prepared for in February, immediately after the breaking off of relations with Germany, and put into effect by order of the President March 14, 1917, before we had entered the war and two weeks before Sims sailed for Europe. Though this proved more successful than any other policy that had been in use until the convoy system was put into effect and proved its value throughout the war, it was not only not suggested by Admiral Sims, but he persistently opposed it and repeatedly declared it practically worthless in spite of evidence to the contrary.

BUILDING UP OF LARGE MARINE CORPS FOR SERVICE WITH ARMY IN FRANCE.

The building up of the Marine Corps from 13,500 to a force of 75,000, and the sending of marines to serve with the United States Army, which proved one of the most brilliantly successful achievements of the Navy in the war, was inaugurated and carried out by the Navy Department, without any suggestion of Admiral Sims, and in this he had no part whatever.

ADMIRAL SIMS REPRIMANDED BY PRESIDENT TAFT AND TWO SECRETARIES OF THE NAVY—OTHER CASES OF INSUBORDINATION.

When Admiral Sims was selected to become confidential representative of the Navy abroad, with the duty of conferring with our ambassador and making reports upon conditions of naval operations by the allied forces, I knew of his Guildhall speech, in which he said.:

If the time ever comes when the British Empire is seriously menaced by an external enemy, it is my opinion that you may count upon every man, every dollar, every drop of blood of your kindred across the sea.

I knew that he had an intimate acquaintance with British naval officers and officials which would secure exchange of views and information desired by us for immediate cooperation if Congress declared war against the Imperial German Government. I thought then that his utterance at Guildhall was an indiscretion made in an after-dinner speech, occasions which have betrayed men time out of mind of doing what, in the common vernacular, is called "slopping over." I did not know until long afterwards that it was an obsession, and that Admiral Sims had a mind which genuflected to British views and at times was closed to the views of his superiors in his own country, if, for example, as happened the views and opinions of the American Navy Department were different from the views and

opinions of the British Admiralty. That knowledge came later and only after the culminating statements Admiral Sims made to Senator Glass, Congressmen Byrnes, Whaley, and Carlin, and Gen. Bliss, and his own statements in letter and otherwise.

Of course, I had heard about, but had never read, the reprimands that President Taft and Secretary Meyer had given him as the following official correspondence shows. This is to Secretary Meyer. [Reading:]

THE WHITE HOUSE,
Washington, January 9, 1911.

MY DEAR MR. SECRETARY: I am informed by you that the Lord Mayor of the city of London, on December 3 last, entertained at dinner 800 men of the United States Fleet; that the men were commanded by Commander W. S. Sims; that Commander Sims, in reply to the address of welcome of the Lord Mayor, used these words:

"If the time ever comes when the British Empire is seriously menaced by an external enemy, it is my opinion that you may count upon every man, every dollar, every drop of blood of your kindred across the sea."

You ask me whether the delivery of such a speech under the circumstances calls for action by the department. I think that it does. The Navy is used much as an instrument of peace. One of the chief functions that its officers perform when they visit foreign ports is the representative one of conveying to all nations the good will of the United States. An important part of the education of a naval officer, therefore, is instruction in international law and diplomatic usage. He is under special obligation to see to it that what he does or says shall not embarrass his Government in its foreign relations.

Whenever he is called upon in a foreign country to speak in public, so that what he says will necessarily be brought to the attention of the people of other foreign countries, it is his obvious duty to avoid invidious comparisons and to limit his speech and his expressions of friendship for the country whose guest he is to use language that will not indicate a lack of friendship toward other countries.

I am aware that upon the sudden spur of the moment and under the enthusiasm of a cordial welcome, grateful words crowd to the lips of the guest, the whole effect of which it may be difficult for him to measure. It should be, however, the business and training of a naval officer under such an impulse to restrain himself within the limits of diplomatic intercourse. To depart from it is not only a blunder, but a fault for which his government can not excuse him. Commander Sims can not escape censure on the ground that what he said was a mere expression of his personal opinion. Under the circumstances he must speak as an official representative and he should have known that the words he used would at once call for severe comment in other countries than Great Britain, and might involve this Government in explanation and disclaimer.

For these reasons I direct that a public reprimand be given to Commander Sims. His offense has been so conspicuous that the action of the department in reproving it should be equally so.

Sincerely, yours,

WM. H. TAFT.

HON. GEORGE VON L. MEYER,
Secretary of the Navy.

Secretary Meyer issued the following:

A public reprimand is hereby administered to Commander W. S. Sims, United States Navy, and will be entered upon his official record. The gravamen of the offense is so clearly set forth in the above quoted communication from the President that no additional remarks appear necessary to indicate to the naval service the lack of tact and knowledge of the plain duty of an officer of the Navy exhibited by Commander Sims upon the occasion mentioned and to prevent a repetition of such a regrettable occurrence.

G. V. L. MEYER,
Secretary of the Navy.

This was not the only reprimand given to Admiral Sims by the Navy Department. At another time because he was guilty of being "Insubordinate in character, disrespectful to the department and to your commander in chief," he was reprimanded by the Navy

Department. The letter of reprimand, sent to him by the Acting Secretary under date of November 1, 1910 (file No. 5688-1553) is as follows:

SIR: The department returns through official channels your communication dated October 20 that it may be revised and submitted in respectful language.

Your attention is called to the following extract on page 9 of your report:

"Whether rightly or wrongly, it is universally believed in the fleet that the application of these rules has inflicted grave injustice upon certain vessels. It is not essential whether or not this is technically true, since the essential element that makes for intensity of competition is this very belief as to its substantial justice. As specific instances of this, it may be noted that the application of rules governing the weight assigned to mines, and the consequent shifting of the relative standing of ships, as well as the classing of the *South Carolina* with ships that carried out their practice in a twisting seaway, are generally regarded in the fleet with derisive disapproval."

The Secretary of the Navy goes on to say:

The implied criticism of your superior officers in the above-quoted paragraph, and especially in your statement that the application of the present rules governing target practice which were adopted and approved by your superior officers, are "generally regarded in the fleet with derisive disapproval." is insubordinate in character, disrespectful to the department and to your commander in chief, and such as an officer of your age and experience should under no circumstances have been guilty of. It evinces a lack of military subordination to and respect for superior authority, much to be regretted.

You will rewrite page 9 of the communication above referred to, omitting therefrom the parts above quoted, and return the amended paper, together with the original of page 9, through official channels to the department.

Very respectfully,

BEEKMAN WINTHROP,
Acting Secretary of the Navy.

Commander W. S. SIMS, UNITED STATES NAVY, COMMANDING U. S. S. "MINNESOTA,"

Through the commander in chief, United States Atlantic Fleet.

Full facts of occasions of other insubordination are not on file in the Navy Department, but Burton J. Hendrick, an intimate and ardent champion and biographer of Sims, in his fulsome article in praise of Admiral Sims in *World's Work*, gives some incidents showing glowing commendation of insubordinate practices long before I became Secretary of the Navy, which are contrary to naval tradition, naval regulations, and naval discipline. I quote from the article in the *World's Work*, August, 1919:

Pages 376-385:

For many years Americans who were interested in their Navy had known Admiral Sims as the most vigorous, intelligent, and courageous officer on its rolls—as the one man, indeed, who had been chiefly responsible for its efficiency and fighting power. Others who followed naval matters less closely were familiar with his name as one that had appeared periodically in the public print, usually in connection with some startling, even sensational episode; with these the name of Sims signified a spirit of revolt, a man who was constantly rebelling against authority and tradition, a trouble-maker in the Navy, possibly even a character dangerous to international peace.

Page 386:

Washington began to realize that an active mind was working at naval problems in 1895, when Sims, then located at the China station, began to send home reports most of which were insubordinately critical of naval types and naval administration.

Like most thinkers who startle their associates with ideas, Sims merely unearthed a few obvious facts. His discovery, while not particularly recondit, was startling and shocking. Most Americans of that time thought that they possessed a wonderful Navy, but Sims now told them that their Navy was a joke. While the Nation was going wild over our achievements against the Spaniards in 1898, and especially rejoic-

ing over our skilful shooting, this disgusted naval attaché in Paris informed his chiefs that in any battle with a first-class naval power the American fleet would meet precisely the same fate as that which had befallen the Spanish ships at Manila and Santiago. In such a battle, wrote Sims, the United States would not achieve even respectable defeat—the thing could end only in absolute disaster. "One British ship," he said,

That was immediately after the Spanish War—

"could easily dispose of four or five American vessels of corresponding type."

The article continues (pp. 390–391):

All this time Sims had been calling attention to faults in the Navy that were even more serious, especially in the construction of ships. He first stepped on an American "modern" battleship in 1900; this was the *Kentucky*, then at Gibraltar en route to China. The experience was a shocking revelation. "The *Kentucky*," the admiral says, "is not a battleship at all. She is the worst crime in naval construction ever perpetrated by the white race." * * *

From 1900 to 1907 Sims kept up his solitary campaign against these errors; his reports, as already described, were committed to the flames. Finally he decided on another unprecedented move, which was one even more insubordinate than his letter to the President. This time he took his cause directly to the American people itself. He summoned his friend, Mr. Henry Reuterdaahl, the marine artist, and asked him to prepare a popular magazine article describing the defects of our ships as set forth in his reports.

The moment chosen for this exposé was a dramatic one; it appeared in McClure's Magazine, in January, 1908, just when the American Navy started on its historic cruise around the world. Probably no single article ever published in this country caused such a sensation. However insubordinate his procedure may have been, Commander Sims had at least achieved his purpose of focussing popular attention upon the defects in American warships. For weeks the newspapers all over the country talked of little else; the editorial office of McClure's received tons of clippings referring to its "unpatriotic article." Senator Hale, then chairman of the Naval Committee, started an investigation for the express purpose of proving that Mr. Reuterdaahl and his abettors—suspicion immediately fixed on Commander Sims—were liars of unprecedented magnitude. When this investigation had reached its most exciting stage, Commander Sims received this rather formidable communication from his chief, the Secretary of the Navy:

NAVY DEPARTMENT,
Washington, February 15, 1908.

SIR: The department having had brought to its attention a very unusual similarity between statements made by you in various communications to the Secretary of the Navy, and some of those contained in an article entitled "The needs of our Navy" in the January number of McClure's Magazine, over the signature of Mr. Henry Reuterdaahl, you will please submit, immediately, categorical and specific statement on the following points:

"Did you, directly or indirectly, furnish to Mr. Reuterdaahl, or to any one acting for that gentleman, or for any other individual, information which could justly be regarded as an adequate foundation upon which to base the various statements contained in the above-noted article under the following captions:

"A fleet with main armor under water," "Our investment in ships with submerged armor," "The lowness of American ships," "One-third of guns useless in a seaway," "The open shaft to the magazine," "The danger from exploding shells," "The poor protection for gun crews," "Insufficient ammunition hoists," "Lack of torpedoes and destroyers," "Ten days of battle drill in nine years," "The bureau management of the Navy," "Fifteen years' fight for a safe turret," and "Our first need."

The Secretary of the Navy continued:

The department desires that your statement be categorical and explicit as to whether or not you have communicated, directly or indirectly, publicly or privately, to editors of papers or their representatives, or to any other persons, information which could be justly used as a foundation for sensational statements of the character in the article which appeared in the January number of McClure's Magazine.

If you have not, either directly or indirectly, supplied such information, the department desires explicit information as to whether you are prepared to assume responsibility for the truth of any of the important statements therein contained under the above-noted captions, and if such be the case, a brief and explicit indication of the statements in which you concur.

Respectfully,

V. H. METCALF, *Secretary.*

Commander Wm. S. SIMS, United States Navy,
Bureau of Navigation, Navy Department, Washington, D. C.

Now I go on to quote from Mr. Burton J. Hendrick:

Meanwhile a comedy was being played under the surface. There is no harm in saying now that, while President Roosevelt had not inspired the Reuterdaahl article, he knew that it was in process of incubation and that he was glad to have it published. With all his personal force and all the advantages of his position he had not succeeded in making the essential changes in the Navy Department's construction plans, and he realized that publicity was the only cure. When Commander Sims received Secretary Metcalf's letter, therefore, he at once took it to the President.

"Apparently they intend to court-martial me," he said.

"Well, don't you deserve it?" answered the President. "Haven't you been insubordinate?"

"Yes"; Sims replied, "just as insubordinate as you were on a famous occasion."

This reference to Roosevelt's "Round Robin" in the Spanish War brought loud guffaws from the Chief Executive. After Commander Sims left, he sent for the Secretary of the Navy and directed him to drop all court-martial proceedings.

This article shows a spirit of pride in continued insubordination to authority, as disclosed in this evidently inspired story, little of which I was familiar with when Admiral Sims was intrusted with the confidential mission to London. If I had fully understood and properly assessed his past attitude and conduct with respect to the highest spirit of loyalty he would not have been sent.

SIMS NEEDED TO LEARN AND FOLLOW THE ADMONITIONS IN WASHINGTON'S FAREWELL ADDRESS.

The Guildhall speech Admiral Sims made should have caused me, before he departed for London, to have given him a copy of George Washington's "Farewell Address," with the "explicit admonition" to read and inwardly digest and practice the following wise admonitions:

The name of American, which belongs to you, in your national capacity, must always exalt the just pride of patriotism more than any appellation. * * *

Nothing is more essential than that antipathies against particular nations and passionate attachment for others should be excluded. * * *

Sympathy for a favorite nation, facilitating the illusion of an imaginary common interest in cases where no real common interest exists, and infusing into one the enmities of the other, betrays the former into a participation in the quarrels and wars of the latter, without adequate inducement or justification. It leads also to concessions to the favorite nation of privileges denied to others, which is apt doubly to injure the nation making the concessions; by unnecessarily parting with what ought to have been retained and by exciting jealousy, ill will, and a disposition to retaliate in the ambitious, corrupted, or deluded citizens (who devote themselves to the favorite nation) facility to betray, or sacrifice the interests of their own country without odium, sometimes even with popularity, gilding with the appearances of a virtuous sense of obligation, a commendable deference for public opinion, or a laudable zeal for public good, the base or foolish compliances of ambition, corruption, or infatuation.

As avenues to foreign influence in innumerable ways, such attachments are particularly alarming to the truly enlightened and independent patriot. How many opportunities do they afford to tamper with domestic factions, to practice the arts of seduction, to mislead public opinion, to influence or awe the public councils. Such an attachment of a small or weak toward a great and powerful nation dooms the former to be the satellite of the latter.

Against the insidious wiles of foreign influence (I conjure you to), believe me (fellow citizens), the jealousy of a free people ought to be (constantly) awake, since history and experience prove that foreign influence is one of the most baneful foes of republican government. But that jealousy to be useful must be impartial; else it becomes the instrument of the very influence to be avoided, instead of a defence against it. Excessive partiality for one foreign nation and excessive dislike of another, cause those whom they actuate to see danger only on one side and serve to veil and even second the arts of influence on the other. Real patriots, who may resist the intrigues of the favorite, are liable to become suspected and odious; while its tools and dupes usurp the applause and confidence of the people to surrender their interests. * * *

VIEWS UPON THE LESSONS OF THE WAR INVITED.

Before Admiral Sims made public his letter entitled "Lessons of the World War," the Chief of Operations, after consultation with other able officers, had prepared an order calling upon all officers "while the events of the war are fresh in the minds of all," to make recommendations looking to improvement. That order, as soon as it was perfected, was signed by me and promulgated. It was the naval way of securing the results of study and participation in war for the consideration of the thoughtful men in the service. Much can be learned from all wars, particularly from the World War which was unlike any other war, and the department so far from not wishing the frankest discussion of the lessons of war, including any mistakes that could be avoided in future wars, actually had prepared an order for just such study and discussion. The purpose of the order was to secure a serious professional naval examination, free from personalities or reflections, of lessons taught by the war for the good of the service and the good of the country. It is well to show the large scope of the information desired and the recommendations solicited. The general order is as follows:

General Order)
No. 516. }

NAVY DEPARTMENT,
Washington, D. C., January 17, 1920.

1. While the events of the war are fresh in the minds of all, it is considered essential to collect and record all suggestions and recommendations for improving the methods used by the Navy in the prosecution of operations and in the supply of men and materials.

2. All persons in the naval service or employed by the Navy Department who consider that they have sufficient first-hand information to make suggestions of value are requested to submit, before April 1, 1920, a statement, in duplicate, to the Secretary of the Navy describing briefly any method or practice which is considered subject to improvement and giving a concise recommendation for the remedy of this condition.

3. Recommendations on one or more of the following subjects are desired:

1. Organization of—

- (a) Navy Department.
- (b) Forces afloat.
- (c) Fleets.
- (d) Forces.
- (e) Battleship and destroyer squadrons.
- (f) Destroyer and submarine flotillas.
- (g) Battleship, destroyer, and submarine divisions.
- (h) Task forces.
- (i) Ships.
- (j) Shore establishments.

1. Organization of—Continued.
 - (k) Naval districts.
 - (l) Bases.
 - (m) Navy yards.
2. War plans of the Navy Department and commanders of fleets and forces:
 - (a) Operations of forces afloat.
 - (b) Maintenance and operation of shore establishments necessary to permit the forces afloat to carry out their mission.
3. The system of command used and the form of orders issued by the Navy Department and subordinate commanders.
4. The means taken to obtain information of the enemy and to disseminate it to our own forces.
5. The means taken to obtain information showing the exact situation of our own forces and the personnel and the material available for them.
6. The means taken to coordinate the operating forces with the bureaus and offices supplying them with personnel and material.
7. The cooperation of the bureaus and offices charged with the supply of material with civilian business men and manufacturers.
8. The escort of convoys subject to attack of surface craft.
9. The escort of convoys subject to submarine attack.
10. The organization of convoys.
11. The organization of a transport.
12. Taking over, fitting out, and equipping merchant vessels and returning them when no longer required for naval purposes.
13. Operations against submarines by—
 - (a) Destroyers.
 - (b) Submarines.
 - (c) Aircraft.
 - (d) Vessels equipped with listening devices.
 - (e) Armed merchant vessels.
 - (f) Other classes of vessels.
14. Mining operations against submarines and surface craft.
15. Fleet tactics.
16. Gunnery.
17. Torpedo tactics.
18. Scouting and patrolling for enemy surface craft.
19. Communications, including signaling and signal books.
20. Obtaining adequate personnel:
 - (a) Enlistments and training of naval personnel.
 - (b) Recruiting and making available the civil personnel necessary for the supply of special material and the maintenance of the fleet.
21. Methods of raising the morale and increasing the contentment of the personnel.
 - (a) Naval personnel.
 - (b) Civil personnel.
22. Discipline, rewards, and punishments.
23. Uniform and clothing.
24. Food.
25. Mail and censorship.
26. Development of ordnance material.
27. Development of engineering material.
28. Development of construction and repair material.
29. The purchase of supplies and making of contracts.
30. The transportation of supplies.
31. The settlement of claims.
32. Development of medical supplies.
33. Sanitary arrangements on ship and ashore.
34. Treatment of sick and wounded.
35. Cooperation with inventors.
36. The preparation of diaries, records, and reports.
37. Cooperation of the Navy Department with other Government agencies.
38. Cooperation of the Navy Department with the Allies, in connection both with the operation of the naval forces and with material matters.
39. Miscellaneous subjects.
40. A separate page should be used for each subject. Recommendations are not limited to those listed above, but should be made on all other important subjects of which the writer has first-hand knowledge.

JOSEPHUS DANIELS,
Secretary of the Navy.

ALL OFFICERS ASKED EARLY IN THE WAR TO SUGGEST PLANS TO WIN VICTORY.

You have heard the views of a few naval officers who have appeared before your committee, and though particularly as to the criticisms of trivial matters by those who were called because they were known to have made recommendations which were not adopted by the Navy Department, you must have been struck with the truth that naval officers are not always in agreement upon policies, or ships or personnel. Indeed, if all who disagreed had been called at one time you would have had a debating society. The adverse witnesses were in agreement only on one point; and that was that the department greatly erred every time it did not unquestioningly follow the particular plan the particular officer was cocksure was the only plan to win the war.

It may not be known to the members of this committee and to Congress that the department from the first recognized that the war upon which it had entered was unlike any other war, and that its end could be hastened only by discovering and adopting new and more audacious methods than the allied powers had employed up to the time the United States entered the war.

As evidence of the desire of the department to enlist the thought and initiative and advice of all the officers of the service for bold methods, the following "All-Navy telegram" was sent on the 2d day of August, 1917, for every officer in the Navy:

August 2, 1917.

Radicode: To all officers of the United States Navy. Confidential. In order that nothing may be left undone by the American Navy to win the war, the cooperation in initiative and suggestion of every officer of the Navy is earnestly desired. Request is hereby made that all officers who are giving study and thought to this important matter to submit their views and plans to the Chief of Naval Operations.

Well-considered suggestions from officers of all grades will receive immediate consideration, and officers presenting plans that give promise of helping to secure victory will be ordered to Washington for consultation.

Victory may wait upon students and strategists in the American Navy.

This request is made of all officers, young and old alike, and all are urged to forward without delay the result of their studies direct to the department.

JOSEPHUS DANIELS,
Secretary of the Navy.

In answer to that request replies were received from 251 officers. Their suggestions were referred to the General Board for consideration and recommendation. I feel quite sure that if your committee had called each one of these 251 officers before you, every one of them would have told you, and have been perfectly honest about it, that the plan he proposed had about it such merit that, if it had been promptly carried out, it would have contributed greatly to win victory, and that the department was wanting in wisdom when it did not adopt his particular suggestion. Most of these officers, however, have no grievance or disappointment or excess of vanity. Few of them would charge that failure to follow their particular recommendation cost the lives of 500,000 men or \$15,000,000,000, for they are mainly officers not given to hyperbole, and they have no desire to help to prove that, while allied navies did great things, the American Navy was inefficient, and the department lacked the desire or the capacity to work whole-heartedly to win victory. I will append

herewith or read, whichever pleases the committee, those 251 suggestions in response to my request. They make just as important a part of this post-mortem to discover which plan suggested was not adopted, and therefore was responsible for not hastening victory as the views of officers who have come before you and told of how not adopting their advice delayed or hampered the glorious victory which brought lasting honor to the Navy, in spite of any lack of omniscience on the part of any officer of the Navy Department. I will give them to the committee.

The CHAIRMAN. You will give what to the committee?

Secretary DANIELS. The replies of these officers as to the best methods of winning the war.

The CHAIRMAN. You mean the 251 suggestions?

Secretary DANIELS. Yes.

The CHAIRMAN. For the records?

Secretary DANIELS. Of course. Each man gave his opinion. Some men who gave their recommendations which were not adopted have been before you and stated them. In order to know what was proposed and to know whether any of them were wise, these might very well go in.

Senator KEYES. These recommendations were made in writing?

Secretary DANIELS. Yes. Of course, many of them were made personally, but only in writing.

THE MAGNITUDE OF THE NAVY'S TASK.

The Navy under this administration has built and manned more ships than in all the periods of 126 years since the Navy Department was established in 1794.

The Navy under this administration has enlisted and trained more men than in all the preceding years of naval history in the United States.

The Navy under this administration has secured appropriations which amount to \$2,688,080,466.59, a billion and eight hundred thousand dollars more than the total expenditures of the Navy during all the years since 1794.

One of the new dreadnaughts, like the *New Mexico*, which was finished during the war, is equal in gun power to all Farragut's fleet which bottled up the southern ports.

The following ships composed the fleet of Admiral Farragut:

The steam sloops *Hartford*, *Pensacola*, *Colorado*, *Brooklyn*, *Portsmouth*, *Oneida*, *Mississippi*, *Varuna*, *Iroquois*, *Richmond*, *Lackawanna*, *Monongahela*, *Ossipee*, and *Seminole*.

The monitors *Chickasaw*, *Manhattan*, and *Tecumseh*.

The Coast Survey steamer *Sachem*.

The steamers *Sciota*, *Katahdin*, *Winona*, *Itasca*, *Cayuga*, *Pinola*, *Wissahickon*, *Kennebec*, *Harriet Lane*, *Westfield*, *Miami*, *J. T. Jackson*, *Clifton*, *Pambina*, *Cowslip*, *Stockdale*, *Buckthorn*, *Genesee*, *Glasgow*, *Estrella*, *Narcissus*, *Galena*, *Conemaugh*, *Port Royal*, *Mittacomet*, *Octorora*, and *Sebago*.

The bark *Houghton*.

The ironclad *Winnebago*.

The mortar schooners *Norfolk Packet*, *A. T. Ward*, *Horace Beall*, *Henry James*, *William Bacon*, *Seaform*, *Para*, *George Mangham*,

Sarah Bruen, Racer, O. H. Lee, Ben Smith, Adolph Hugel, Maria J. Cordon, Signey C. Jones, Sophronia, Matthew Vassar, C. P. Williams, Griffith, and Orvetta.

It will be interesting and illuminating to contrast the number of ships, with their displacements and their cost, in the World War, as compared with those in the War of 1812, the Mexican War, the War of 1865, and the Spanish-American War. The number of ships in all previous wars was 1,271, as compared with 360 which we had on April 1, 1917, but this number had been increased by 2,834 ships on November 1, 1918, thus making the total number of ships that we had in the World War 3,194.

The displacement of all ships in all previous wars was 1,217,000 tons, as compared with a displacement of 1,490,000 on April 1, 1917, and this displacement was increased by 8,176,000 tons to November 1, 1918, making a total displacement of all ships that we had in the World War 9,666,000 tons.

The estimated total cost of all ships in all previous wars was \$288,000,000, as compared with the estimated total cost of all ships we had on April 1, 1917, \$422,000,000. This estimated total cost of ships constructed from that date to November 1, 1918, was \$2,222,000,000, thus making a total cost of all ships that we had in the World War \$2,644,000,000.

The Navy expanded from 47,357 men on March 5, 1913, when I became Secretary of the Navy, to 530,000 on November 11, 1918, and the Marine Corps increased from 9,893 on March 5, 1913, to 72,963 on November 11, 1918.

To be sure the great expansion in 1917-18 was due to the World War, but before we entered the war we had secured an authorized strength, in case of emergency, to 97,000 men and secured authorization for more ships than in eight years prior to this administration, and the appropriations were in the five years before we entered the war \$1,265,823,617 more than in the preceding eight years under Roosevelt and Taft.

The stupendous appropriations for war purposes tell the size of the job, certainly as far as it relates to administration, the securing of ships, munitions, and supplies, better than could be told in words. The expenditure of more than \$4,000,000,000 by the naval administration—more in something over 2 years than in the previous 124 years—without the suggestion or intimation of a dollar of expenditures being improper, dishonest, or touched by graft, could not be recorded without the fact carrying with it tribute to the efficiency of the organization of the Navy Department, the sound judgment of the responsible administrators and the perfect team work which characterized the Navy Department and all naval agencies engaged in the gigantic task committed to it.

Without going into the naval expenditures of the naval participation in the War of 1812 or the War with Mexico in the forties, it may be interesting to give the amounts appropriated for the Navy in our three greatest wars—the war from 1861 to 1865, the war with Spain in 1898, and the World War of 1917-18. Here are the figures:

The Civil War.....	\$466, 715, 116. 99
Spanish-American War.....	182, 915, 293. 00
The World War.....	4, 290, 945, 799. 48

When one contemplates these vast sums which were required to do the big job intrusted to the Navy and the necessity of its expenditure in so short a time under the whip and spur of war, the reflection of Americans must be one of pride that the big task was performed so well.

I confess that as I look back upon the strenuous days of those critical times my admiration for the men with whom I was privileged to associate is heightened. We enrolled and trained the men, we built and chartered the ships, we built the guns and the munitions and the mines, we carried on a business embracing everything from laying a barrage costing \$79,476,534.31 across the North Sea to feeding, clothing, and equipping over 600,000 sailors and Marines with such expedition and so little delay as to win the commendation of every captain of industry who touched the Navy Department at any angle while it was performing its task. There was no friction, no lost motion, no failure anywhere. The Navy lived up to its motto: "They say it can't be done. We have done it."

I do not pretend, of course, that there were no errors of judgment or that the Navy was always 100 per cent efficient, though the Chief of the Bureau of Supplies and Accounts holds that its lowest figure of perfection was 99½. During the days of strain there was never a moment when, working from early morning till late into the night, any responsible administrator did not go to bed regretting that the day was not long enough to do more. Looking back upon the enforced speed of the performance, it is remarkable how few and small were the errors or mistakes. They were made, of course, but never was there any spirit except to break the speed limit in hurrying every ounce of naval power into the struggle.

And nobody in America suggested that the Navy had lacked in doing a great work in a great way until nearly over a year had elapsed since the Navy brought back the hundreds of thousands of soldiers it had safeguarded to France. It took months to find any imagination vivid enough to suggest lack of success and efficiency. And though many thousands of words have been droned out before your committee, nothing has yet been established that takes away the just pride of the American people in their Navy during the World War.

It is a matter of interest to note the appropriations for the Navy made by Congress from its establishment in 1794, when they had \$768,000, up to 1913, when they had \$130,000,000. In other words, up to the 4th of March, 1913, the appropriations are \$3,000,000,000.

Since the 4th of March, 1913, the appropriations amount to \$5,000,000,000, making a total for the 120 years of \$8,962,000,000. I have a statement here in the form of a table showing the appropriations and the expense of the war.

(The table referred to is here printed in the record, as follows:)

Statement showing the appropriations for the Navy year by year during the period from 1794 to 1919, inclusive.

Fiscal year:		Fiscal year—Continued.	
1794.....	\$768, 888. 82	1800.....	\$2, 482, 953. 49
1795.....		1801.....	3, 042, 352. 95
1796.....	5, 000. 00	1802.....	1, 719. 00
1797.....	487, 000. 00	1803.....	1, 144, 797. 46
1798.....	2, 024, 712. 00	1804.....	1, 667, 498. 45
1799.....	3, 813, 789. 89	1805.....	1, 550, 000. 00

Fiscal year—Continued.

1806.....	\$1,692,141.44
1807.....	2,429,564.47
1809.....	1,131,567.80
1810.....	2,916,902.50
1811.....	1,870,274.05
1812.....	4,304,669.60
1813.....	9,510,788.55
1814.....	8,174,910.87
1815.....	5,258,686.25
1816.....	4,234,793.77
1817.....	3,814,598.49
1818.....	3,508,695.00
1819.....	3,427,306.95
1820.....	4,042,990.00
1821.....	2,709,243.06
1822.....	3,141,881.52
1823.....	2,822,484.62
1824.....	2,948,969.29
1825.....	3,667,706.31
1826.....	3,738,985.23
1827.....	3,709,490.35
1828.....	3,898,205.04
1829.....	3,845,008.13
1830.....	4,316,000.47
1831.....	3,496,643.29
1832.....	4,456,573.53
1833.....	3,867,872.01
1834.....	4,548,252.95
1835.....	4,966,734.13
1836.....	6,787,667.96
1837.....	7,465,057.60
1838.....	5,076,336.26
1839.....	5,888,930.96
1840.....	5,789,679.40
1841.....	7,418,086.64
1842.....	6,632,386.82
1843.....	3,641,300.97
1844.....	6,048,456.51
1845.....	5,858,060.27
1846.....	8,963,923.10
1847.....	7,591,784.61
1848.....	10,380,808.30
1849.....	8,957,107.98
1850.....	8,826,172.54
1851.....	8,697,046.67
1852.....	6,978,442.18
1853.....	8,371,406.71
1854.....	12,198,103.37
1855.....	10,447,751.77
1856.....	14,293,118.49
1857.....	12,716,584.55
1858.....	12,173,509.36
1859.....	14,906,329.49
1860.....	10,249,483.03
1861.....	23,305,139.51
1862.....	55,700,422.74
1863.....	143,916,799.35
1864.....	118,910,288.32
1865.....	124,882,467.07
1866.....	2,156,197.87
1867.....	20,033,616.56
1868.....	16,642,868.11
1869.....	17,687,279.48

Fiscal year—Continued.

1870.....	\$17,905,952.77
1871.....	20,617,650.38
1872.....	21,192,081.46
1873.....	23,635,779.69
1874.....	26,197,216.06
1875.....	19,102,134.69
1876.....	18,872,725.06
1877.....	12,979,993.49
1878.....	14,758,409.57
1879.....	20,525,082.83
1880.....	14,510,875.40
1881.....	15,467,509.72
1882.....	16,142,903.13
1883.....	15,989,487.78
1884.....	17,189,340.49
1885.....	16,796,714.21
1886.....	18,256,336.45
1887.....	17,412,520.02
1888.....	56,091,338.34
1889.....	20,935,210.90
1890.....	22,246,567.06
1891.....	24,742,253.05
1892.....	32,723,493.45
1893.....	24,025,688.67
1894.....	22,928,256.60
1895.....	25,759,215.64
1896.....	30,686,652.32
1897.....	31,268,274.90
1898.....	62,993,512.90
1899.....	119,921,780.10
1900.....	59,088,546.98
1901.....	66,220,984.00
1902.....	84,442,710.74
1903.....	82,592,228.33
1904.....	87,926,217.08
1905.....	113,523,469.43
1906.....	105,105,889.73
1907.....	104,629,684.59
1908.....	108,124,421.40
1909.....	124,618,807.80
1910.....	137,779,343.11
1911.....	133,376,688.21
1912.....	128,207,382.88
1913.....	130,644,875.46

Total..... 3,137,219,478.15

UNDER THE WILSON ADMINISTRATION.

Fiscal year:

1914.....	\$142,019,023.11
1915.....	147,795,023.78
1916.....	157,170,184.74
1917.....	318,390,017.43
1918.....	1,771,083,353.86
1919.....	2,201,472,428.19
1920.....	624,133,339.63
1921 ¹	466,236,574.00

Total..... 5,825,299,944.74

Total for 126
Years..... 8,962,519,422.89¹ Naval bill as reported to Senate.

Comparison of appropriations and expenditures for the Navy for the fiscal years 1914 to 1920, inclusive (the years in which I have been Secretary of the Navy):

Fiscal year.	Appropriations.	Expenditures.	Fiscal year.	Appropriations.	Expenditures.
1914.....	\$142,019,023.11	\$139,707,021.48	1919.....	\$2,201,472,428.19	\$2,047,573,081.33
1915.....	147,795,023.78	142,959,092.11	1920.....	624,133,339.63	¹ 656,576,434.52
1916.....	157,170,184.74	154,290,185.30	Total.....	5,362,063,370.74	4,774,635,199.95
1917.....	318,390,017.43	255,785,658.92			
1918.....	1,771,083,353.86	1,377,742,826.29			

¹ July 1, 1919, to April 1, 1920.

Statement of appropriations for the Navy during the Civil War, Spanish-American War, and World War.

CIVIL WAR.		WORLD WAR.	
Fiscal year:		Fiscal year:	
1861.....	\$23,305,139.51	1917.....	318,390,017.43
1862.....	55,700,422.74	1918.....	1,771,083,353.86
1863.....	143,916,799.35	1919.....	2,201,472,428.19
1864.....	118,910,288.32	Total.....	4,290,945,799.48
1865.....	124,882,467.07		
Total.....	466,715,116.99		
SPANISH-AMERICAN WAR.			
1898.....	\$62,993,512.90		
1899.....	119,921,780.10		
Total.....	182,915,293.00		

The CHAIRMAN. I think this will be a good place to adjourn, Mr. Secretary, until to-morrow morning.

Secretary DANIELS. Very well, Mr. Chairman.

(Thereupon, at 12 o'clock m., the subcommittee adjourned until to-morrow, Thursday, May 13, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

THURSDAY, MAY 13, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

The CHAIRMAN. The committee will come to order. I have here a letter from Admiral McKean, concerning the request made by the committee to him, that a copy of the Black plan be given the committee, and explaining his reasons for not producing the plan. I will ask that this letter be inserted in the record.

(The letter referred to is here printed in the record as follows:)

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, May 8, 1920.

MY DEAR SENATOR: In the hearings of April 30 the Navy Department's General Board's basic plan known as the Black plan was referred to, and you requested a copy of this plan be furnished this committee for record.

After consultation with the Secretary of the Navy I regret to inform you that in view of the confidential nature of this plan, the Navy Department does not think it should be submitted to the committee, or any part of it placed on the records.

You will understand the department's point of view. I am sure, when I explain that as the strategy of the Black plan was based on the Atlantic Ocean, it was necessarily similar in trend of thought and strategic design to any other or all other plans covering the same strategic area, and that should this plan or any part of it come into the hands of any other powers who might in the future get to be our enemy, it would give them an immense advantage to know our strategic methods and our line of strategic thought.

Admiral Badger, chairman of the General Board, is in agreement with the Secretary as to the inadvisability of this plan or any part of it being permitted to become public, or that we would be justified in running the risk of any part of it becoming public.

Very truly, yours,

J. S. McKEAN,
Rear Admiral, United States Navy.

Hon. FREDERICK HALE,
Chairman Naval Subcommittee of Investigations, United States Senate,
Washington, D. C.

The CHAIRMAN. A short time ago I received a letter from Rear Admiral Victor Blue, retired, which reads as follows. [Reading:]

FORT GEORGE, FLA., May 2, 1920.

Hon. FREDERICK HALE, United States Senator,
Chairman of committee investigating the Navy Department.

MY DEAR SENATOR: The New York Times of April 29 alleges that Rear Admiral McKean in his testimony before your committee states that an error made by me in 1915 in estimating the necessary complements of the ships was mainly responsible for the shortage of enlisted personnel.

I desire to make a most emphatic protest against any such implication by Admiral McKean, and request that your committee will kindly permit me to submit a written statement in reply thereto.

In order that I may have exact information in regard to Admiral McKean's testimony, it is requested that an official copy of same be forwarded to me at the address indicated above.

If not for my serious ill health, I would ask the privilege of appearing before your committee in person.

Very respectfully,

VICTOR BLUE,
Rear Admiral, United States Navy (retired).

I have also received another letter from him, dated May 8, in which he explains the matter and asks that his letter be included in the record. I have shown this letter to Senator Pittman, and he has no objection; and without further objection this letter of May 8, as well as the letter of May 2, will be inserted in the record.

The second letter is as follows:

FORT GEORGE, FLA., May 8, 1920.

HON. FREDERICK HALE,

Chairman of committee investigating the Navy Department's conduct of the war.

MY DEAR SENATOR: On the 2d instant I addressed a letter to you protesting against certain statements of Rear Admiral McKean, as alleged by the public press to have been made before your committee to the effect that errors made by me in estimating the number of men for the ships in 1915 were mainly responsible for the shortage of enlisted personnel, and that these errors were due to the fact that I took the number of ships listed in the General Board's plans and estimated the total number of men on the basis of "peace complements." In that letter I requested that an official copy of Admiral McKean's testimony be sent me, in order to permit of an intelligent reply to the same.

Not having received such copy, and believing that your committee is now nearing the end of its labors, I am constrained to submit this statement, and beg that it may be considered by your committee and placed in the record.

I am greatly surprised that an officer who served so long in the Navy Department, and who was so fully cognizant of its inside working, as was Admiral McKean, should make such a statement in regard to my actions while Chief of Bureau of Navigation.

In the estimates referred to the figures used were those with which the ships had operated from the very beginning of their existence, extending back many years before I was ever thought of for chief of bureau. To my mind there was no question of a "peace" and a "war complement" per se in the case of ships in full commission, except that always in time of war a large number of supernumeraries are usually kept on board for the purpose of being at hand to fill vacancies immediately as they occur. As a matter of fact, I always tried to impress this view of the matter upon Members of Congress. My predecessors in the Bureau of Navigation had established the complement of the ships when they were built, and these complements had stood the tests of actual service. They compared favorably with the complement of ships of the British Navy of similar types. They were made out in accordance with a fixed rule established by the department for many years, yet one would infer from Admiral McKean's alleged testimony that they were evolved from my brain.

It had been the custom for many years for the Bureau of Navigation to fix arbitrarily the complements of the ships. I believe that I was the first chief of bureau who ever attempted to revise these complements by reference to boards of officers appointed by the commander in chief of the fleet. Unfortunately, however, the reports of these boards differed so widely in cases of certain battleships of the same type that full confidence could not be placed in them. The controversy which arose over these reports, being sent to the House Naval Committee by persons unknown for use as propaganda, befogged the issue and led to a general belief that I was opposed to an increase of enlisted personnel.

This idea was preposterous, as subsequent events proved—notably the passage of legislation in 1916 which increased the enlisted strength to practically 100,000 men. This total included 76,700 fighting men, in addition to the Medical Corps and some others, which number the President could increase to 87,000, making 100,000 in all. For this legislation I had labored for many months, and was finally successful in that my recommendation was enacted into law without a single figure being changed by Congress. This large increase was made from an enlisted strength of some 54,000 men.

It so far exceeded the recommendations of the General Board and of other high-ranking officers that everyone experienced great surprise.

I wish to say in this connection that it was not my custom to make recommendations to committees of Congress on matters involving policy that did not meet the approval of the administration. If, as was sometimes the case, such approval was a long time in coming, I bore the burden in silence without explanation of the reasons to the service.

Any other course on my part would have been disloyal to my civilian chief, who was responsible to the people for his administration of the Navy and the establishment of its policies, as well as a source of danger to the Nation.

Recent European history amply demonstrates how a Government can be destroyed and a whole nation debauched by the arrogance of the military in assuming to itself to decide upon state policies.

During my hearings before the House Naval Committee, which considered the "estimates" to which Admiral McKean referred, I explicitly stated in effect that they were only "estimates" based on certain conditions that governed, and were not to be taken as recommendations from me.

I am all the more surprised at Admiral McKean's statement for the reason that he was in the department and presumably cognizant of my activities towards securing legislation for the Navy that would place it on a firm basis and raise it to the highest degree of efficiency. To what extent I was successful in my efforts is shown by the amount of personnel legislation urged by me, and enacted into law during my regime as Chief of Bureau.

Among the principal items of such legislation were the following:

(a) The provision creating a Chief of Naval Operations in the Navy Department organization.

(b) The provision for admirals and vice admirals in the organization of the fleet.

(c) The reorganization and increase of the officer personnel of the Navy, basing the total number of officers on a percentage of the enlisted strength, and distributing the number of officers throughout the various grades in order to insure an automatic and healthy flow of promotion.

(d) The creation of the Naval Reserve Force. This measure not only created a Naval Reserve Force, but it also contained excellent provisions for the regular enlisted force, by offering great inducements for long service of the men, and for reclaiming to the regular service or to the reserve the many thousands of well-trained ex-service men in civil life, as well as increasing the morale by placing a high premium upon honorable service.

(e) The provision increasing the enlisted strength from about 54,000 to practically 100,000 men.

There were many other measures of minor importance that were initiated and urged by me until enacted into law.

All these measures were passed as provisions of appropriation bills, and therefore were subject to a point of order.

It was amusing to read the statement of a high ranking officer to the effect that he had recommended the creation of a Chief of Naval Operations, and that his recommendation was adopted, notwithstanding the opposition of the Secretary of the Navy and of the majority of the Naval Committee. That would, indeed, seem strange, when it is known that the opposition of only one Member of Congress was required to defeat it.

The position in which Admiral McKean has placed me makes it necessary for me to bring to light matters in regard to personnel legislation which would seem to exploit myself. This, however, is far from my desire or intention. Regardless of what others did, I worked hard to have the office of Chief of Naval Operations authorized, giving it the maximum power possible under the Secretary of the Navy. It was I, against much opposition, who insisted on having it written into law that the Chief of Naval Operations would be in succession to act as Secretary of the Navy next to the Assistant Secretary, although I, as Chief of Bureau of Navigation at the time had that prerogative.

When the law went into effect, I subordinated myself and my bureau to the Chief of Naval Operations as an example to the other bureaus to regard him as their military chief—all this that the Navy might be better organized for war.

As for the other items of legislation mentioned herein, I not only initiated them, but urged them continually, until they were finally enacted into law. Some of these required months, and others years. As your committee well knows, it is one thing to recommend legislation and another thing to get it through.

The provision reorganizing the officer personnel on a percentage basis of the enlisted force with a percentage of distribution in the various grades was proposed and drafted by me personally. Many months of effort were expended in collecting data about foreign navies, making tables of same, and producing arguments for convincing the department and Members of Congress of the advantages of this legislation.

Same may be said of the provisions creating the Naval Reserve Force. This was also entirely my own. It was evolved from lengthy studies of foreign systems and from a large mass of correspondence with many persons throughout the country. More than two years were taken up in efforts to get this legislation through. It provided for enrolling and training an unlimited number of officers and men for war service.

And again, the increase in the enlisted force (regular) from about 54,000 to practically 100,000 required many months of effort on my part in collecting data and writing arguments to show the necessity for the increase, etc.

When I first took over the duties of the bureau, I found the Navy woefully short of officers and did everything possible to increase the output of the Naval Academy and to provide for commissioning deserving enlisted men as well as civilians. The history of legislation affecting these matters that passed during my incumbency of the bureau amply shows that my efforts in this regard were at least fairly successful.

It must be remembered that all my work in connection with the above-mentioned legislation was in addition to the regular routine work of the bureau.

The fact of the physical breakdown which I have undergone, and which cut short my active career in the Navy, is directly traceable to the burden of overwork performed in connection with the above-mentioned matters.

Before closing I wish to say that all the legislation mentioned above was approved by Secretary Daniels before being sent to a committee of Congress. I wish to say in conclusion that all statements made herein are matters of record in the department and in the Naval Committees, and as such are susceptible of proof, if not actually recorded, they come within the knowledge of officials and naval officers now in Washington or close at hand. In this connection I refer to Senator Swanson and Senator Lodge, of the Senate Naval Committee, and to Mr. Padgett and Mr. Butler, of the House Naval Committee. All of these gentlemen were indefatigable in their efforts to make the Navy 100 per cent efficient, and it is a pleasure to know that I was privileged to work with them. The Secretary of the Navy has first-hand knowledge of all my efforts in behalf of the Navy.

Admiral Benson knows about my activities in regard to the office of Chief of Naval Operations.

Capt. Ridley McLean, who was Judge Advocate General at the time and who translated proposed legislation into legal phraseology, knows about my efforts in that regard, especially as to the legislation creating the Naval Reserve Force and that reorganizing the personnel of the Navy.

Capt. D. W. Wartsbaugh, who was in charge of the enlisted personnel division of the bureau at the time in question, knows how the "estimates" referred to by Admiral McKean were made.

The statements made herein are from memory entirely, as I have no records at hand to refer to, but my memory can hardly be at fault in matters which engrossed my attention for so many months and even years. I remained in the bureau a year and several months longer than I at first intended, for the express purpose of assisting in the preparation of the Navy for war by furthering the legislation that finally passed in August, 1916. It was my original intention to go to sea in the spring of 1915, but when that time came around without the legislation that I had been hoping for and working for, I concluded to remain in the bureau and continue my efforts until such legislation was assured.

Very sincerely,

VICTOR BLUE,

Rear Admiral United States Navy (retired.)

Will you proceed, Secretary Daniels?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. There never was a moment from the time that I told Admiral Sims in the Navy Department on the day he was intrusted with the confidential mission to London, that the President believed shipping should be protected under convoy, when my individual opinion was not favorable to the plan of convoy. But neither in that nor in any other purely naval operation or distribution of our ships did I impose my individual opinion upon the responsible military officers. I knew that up to July the British

were not fully operating the convoy system, though successful trips had been made from Gibraltar and other places.

I knew that there was a difference of opinion among naval officers on the convoy question, particularly under the conditions existing as to destroyers and other escort craft. I knew that some of our ablest officers agreed with the three-year doctrine of the British Admiralty, that a well-armed ship had a better chance by going alone than in convoy. I knew the armed guard had been successful to a high degree. Though in harmony with the view frequently expressed by the President, that the convoy system would prove an additional protection, I did not undertake to impose such view upon the Office of Operations, which was responsible for the formulation and carrying out of the operations of our ships. I had full faith in the ability and judgment of the head of that office and his subordinates. This was justified because, though having agreed at first with the British Admiralty, that the policy of dispersion was preferable, it was ready to adopt the convoy system when it was practicable, and furnished all possible ships to make it a success. All American troops from the very first, going to France, went in convoy.

Knowing exactly my opinion at the time on the question of convoys, it may be imagined that it was with a good deal of surprise I read the telegram produced by Admiral Sims on the 10th day of March in his opening statement before this committee, which he declared and emphasized time and again had been sent by me, it being apparent that he was attempting to produce the impression that I was personally in opposition to the convoy system. The dispatch he presented was as follows:

Received: June 20, 1917 via Admiralty.
To: Commander in chief, Queenstown.

Following for Admiral Sims:

Begins. There will be no additional movement before August of troops. You will be furnished fully with information as to sailing of Army supply ships as far as possible in advance and the actual sailing and intended route and probable dates of arrival will be reported. We hope to sail four Army supply ships now fitting out in about 10 days' time. The 32 destroyers which are all that there are available have sailed. One hundred and ten-foot chasers which are to be sent to France should begin to deliver in August. Fishing vessels, 12 in number, will sail in August for France. There are no other small craft available at present although work on yachts is being pushed; probably ready 15th July. In regard to convoy, I consider that American vessels having armed guards are safer when sailing independently.

DANIELS.

In his testimony Admiral Sims added:

I would like to invite particular attention to that last paragraph:

"In regard to convoy, I consider that American vessels having armed guards are safer when sailing independently."
And that was signed "Daniels."

Well, I can assure you that I was about ready to jump overboard when I got that last message. After all the information that had been sent out, as to the nature of the antisubmarine campaign and as to the nature of the submarine campaign, to be informed officially by the Navy Department, "In regard to convoy I consider that American vessels having armed guards are safer when sailing independently."

The statement "and that was signed 'Daniels,'" is untrue. No such telegram "signed 'Daniels'" was ever sent to Admiral Sims. In his testimony he iterated and reiterated several times that this dispatch which made him "about ready to jump overboard" was "signed 'Daniels,'" and conveyed the impression that the civilian

Secretary of the Navy had personally passed upon the question of a particular method to be adopted to protect shipping, and was "resisting the adoption of the convoy system." I knew I never entertained the opinion stated in the dispatch he displayed. I knew I had never sent such a telegram. I knew that if my name appeared upon such a telegram it would be because somebody had forged my name to it. Therefore, as soon as I learned that Admiral Sims had produced the telegram "signed 'Daniels,'" I gave directions to see if such a telegram had been sent by me to Admiral Sims at any time. The answer was that there was a copy of the telegram in the files of the department, but the copy was not "signed 'Daniels.'" The dispatch had been sent to London through the British Embassy, which had retained the original copy. I then sent an officer to the British Embassy for the original copy, which I now present to your committee. [Handing paper to the chairman.]

This is the original of the telegram obtained from the British Embassy, furnished for transmission by the naval aid to the Chief of Naval Operations, together with his note to Commodore Gaunt. [Reading:]

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, June 18, 1917.

Memorandum for Commodore Gaunt.

Admiral Benson requests that you send the following message to Vice Admiral Sims: "No additional movement of troops before August. Information of sailing of Army supply ships will be furnished as far in advance as possible and actual sailings, probable dates of arrival and intended route reported. Four Army supply ships now fitting out to sail in about 10 days.

"All available destroyers totaling 32 have sailed; 110-foot chasers are to be sent to France as fast as possible, beginning in August. Twelve fishing vessels will sail for France in August. No other craft available at present although work on yachts is being pushed, probably ready by July 15.

"Regarding convoy I consider that American vessels with armed guards on board are safer when sailing independently.

"By direction of Chief of Naval Operations.

"A. F. CARTER."

This shows that somewhere somebody was guilty of signing my name to an official dispatch which the original here produced shows I never signed, or of altering a dispatch by erasing the real signature and substituting "Daniels." You can imagine my indignation when this false signature was spread broadcast over the country in the sensational press stories of the hearings, and the country was told that I had signed a telegram which made Admiral Sims "about ready to jump overboard." The perpetrator of this attempt to fix upon the civilian Secretary of the Navy a telegram signed by another official, ought to be produced by Admiral Sims, who produced the altered telegram, and who owes an apology to me and to the country for the impression undertaken to be made by his testimony based upon a false signature.

I gladly and freely take responsibility for every policy and act of the Navy and Navy Department, whether originating with me or my responsible subordinates, and if Admiral Sims had printed the telegram with its true signature, I would have said to your committee, as follows:

"In the matter of operation and disposition of ships, the Office of Operations was given full responsibility during the war. Its activ-

ities were directed by able and patriotic men of long experience, and the dispatch expressed the opinion of a great officer. I gave the Chief of Operations authority to act independently upon these matters, and had such confidence in his judgment that he was given a perfectly free hand. He believed at the time he sent that telegram that 'American vessels having armed guards are safer when sailing independently.' He conveyed that opinion to Admiral Sims for his information, but he gave no orders against the convoy and did not close his mind. Our Chief of Operations, open-minded and ready to change his views when such a change had been shown advisable, was happy to accept the result of the successful convoy experiments and to furnish ships that made possible much of the success attendant upon the adoption of the system. He was justified in his faith in the good results of the armed guard. He was justified in his policy adopted from the first of conveying every ship carrying American troops. He was justified in furnishing ships when convinced that the convoy should be added to the other methods of protecting ships from the submarine and the amount of convoy work done by the American forces under the direction of the Chief of Naval Operations, compares most favorably with the convoy work of any one of the Allies, or all of them put together for that matter."

That is the statement about the position of Admiral Benson, which all fair-minded men will say demonstrates his ability and capacity. It was because he was open-minded to suggestions and ready to adopt new plans when they promised greater success than the old ones that he made the administration of the Office of Operations during the World War worthy of the commendation and approval it has received from Americans and allied nations. This approval has been particularly worthy of mention from naval officers and Army officer at home and abroad.

The question whether the Chief of Operations of the United States Navy was convinced a few weeks earlier or a few weeks later regarding a debatable question concerning which it took practically three years to convince the British Admiralty, does not seem a serious one when we consider that after all the convoy system was put into effect quite as rapidly by the United States Navy as by the British Navy. It was not a system which could be applied instantly, and it was months before it was working with thorough smoothness. It is, however, for the purposes of your committee, a very material question whether it is furnished with facts or fiction, and I submit that nothing excuses or justifies the presentation of a telegram, no matter what its contents, "signed Daniels," which was not "signed Daniels."

I wish to have the copy of the original placed in the record, with Mr. Carter's signature, showing that this telegram had my name forged to it.

The CHAIRMAN. Very well. Are you going to leave the original with us?

Secretary DANIELS. The original belongs in the files of the British embassy. At that time, at the request of Admiral Sims, we were sending telegrams of importance through the British embassy and the Admiralty in London, to Sims. That is a part of their files. I have here a photostat copy of it, and I will leave that with you.

Senator PITTMAN. Is that a photostat copy you have there, for the record?

Secretary DANIELS. Yes, sir.

The CHAIRMAN. I think it would be well for you to leave with us also the original. Will you keep the original yourself, so that we can have it, if necessary?

Secretary DANIELS. Yes; I will.

The CHAIRMAN. Very well.

Secretary DANIELS. I come now to the matter of troop transportation.

TROOP TRANSPORTATION.

Sims warned that first duty of our destroyers was to protect troopships. Ordered destroyers to Queenstown, leaving transports without escort.

Carrying to Europe and bringing home the 2,000,000 troops of the American Expeditionary Force has been justly termed "the biggest transportation job in history." They had to be transported 3,000 miles through submarine-infested seas, facing the constant menace of attack by an unseen foe, as well as the perils of war-time navigation. Yet not one American troopship was sunk on the way to France, and not one soldier aboard a troopship manned by the United States Navy lost his life through enemy action.

That achievement had never been equaled. It was not only the most important, but the most successful operation of the war. The Germans never believed it could be done. When they broke all their solemn pledges and declared ruthless submarine warfare, sinking neutral as well as belligerent vessels without warning, they realized full well that they were waging war against the United States. But the Prussian war lords and general staff never believed America could raise and train an army of millions, and Von Tirpitz and his crew assured the German people that, even if such an army was created, it could never be transported to France. The sinking of transports would have been the most telling blow the Germans could have dealt the Allies, the greatest victory of their submarine warfare.

That they failed to sink a single loaded United States troopship and sank only three ships of other nationalities carrying American troops was not due to any lack of intention or effort, but to the fact that we gave our troopships such efficient protection that it was almost impossible for the U-boats to sink them.

There is not an American soldier, not a mother or father who sent a son to France, who is not grateful to the Navy for throwing around those ships every safeguard for landing safely in France and bringing home every soldier intrusted to its care.

The Navy Department from the moment it was intrusted with this task regarded the protection and successful operation of these troopships as its highest duty. Regarding human life as more valuable than supplies, I did not share the view of Admiral Sims that the escorting of cargo ships was quite as important as the protection of vessels carrying troops. In the medal awards hearing before this committee Admiral Sims gave you some idea of his views on this subject when he contended that even if the Germans had sunk some of our troopships and killed 15,000 or 20,000 troops "they would thereby have lost the war because the war depended upon getting the supplies in." Admiral Sims added:

Twenty thousand troops lost there would not have been any more serious than 20,000 lost on the battle front. It sounds a little heartless to say so, but from the military point of view it would have been relatively of less importance.

(Reproduction of a photostatic copy of the communication above referred to printed herewith.)

In reply refer to No.

Op-22-B

NAVY DEPARTMENT
OFFICE OF NAVAL OPERATIONS
WASHINGTON

18 June, 1917.

MEMORANDUM FOR THEODORE GAUNT.

Admiral Benson requests that you send the following message in code to Vice Admiral Sims:

"No additional movement of troops before August. Information of sailing of Army supply ships will be furnished as far in advance as possible and actual sailings, probable dates of arrival and intended route reported. Four Army supply ships now fitting out to sail in about ten days.

All available destroyers totaling 32 have sailed. 110 foot chasers are to be sent to France as fast as possible beginning in August. Twelve fishing vessels will sail for France in August. No other craft available at present although work on yachts is being pushed probably ready by July 15th.

Regarding convoy I consider that American vessels with armed guards on board are safer when sailing independently.

Opnav."

By direction of Chief of Naval Operations.

174273. (To face page 2114.)

W

Think of it, gentlemen, relatively of less importance to have lost 20,000 men than to have lost some cargo ships carrying supplies.

Senator PITTMAN. Will you pardon me, just a minute, there, Mr. Secretary. The other day, in cross-examining Admiral Benson, I had occasion to ask the admiral if he concurred in the opinion of Admiral Sims in regard to the relative importance of protecting troopships and cargo-carrying ships. I referred then to my memory of certain testimony of Admiral Sims. This is undoubtedly a part of the testimony that I had in mind that you have just read, although it was again referred to before this committee in this hearing. I just call attention to that.

The CHAIRMAN. And the testimony was put in the record at that time at that point. Admiral Sims's written testimony was put in by you the other day, at your suggestion, covering this matter.

Senator PITTMAN. I have not seen what was put in. As I recall, I was to put it in.

The CHAIRMAN. Was it not put in?

Senator PITTMAN. No; it has not been put in, because I was looking it up, and intended to put it in, which I will do. That is the reason that I call attention to it now. What I will do is, as soon as I gather it together, I will put it in in permanent form.

The CHAIRMAN. Very well.

Secretary DANIELS. This frank expression of Admiral Sims's view throws light on some of his actions during the war which, at the time, were difficult for me to understand. I found it necessary, soon after troop transportation began, to remind him sharply that the first duty of American destroyers in European waters was to protect ships carrying American troops. But I could not conceive that an American Admiral, charged with such high responsibility, could regard supplies as of more value than human life, and cargo vessels more important, for any reason, than ships carrying American troops.

WARNED THAT PROTECTION OF TROOPSHIPS WAS PARAMOUNT DUTY.

Admiral Sims's course regarding the protection of ships carrying troops caused such anxiety in the department that, on July 28, 1917, I sent him the following cablegram:

The paramount duty of the destroyers in European waters is principally the proper protection of transports with American troops. Be certain to detail an adequate convoy of destroyers and in making the detail bear in mind that everything is secondary to having a sufficient number to insure protection to American troops.

JOSEPHUS DANIELS.

That was one dispatch I did write with my own hand, and it meant exactly what it said. Admiral Sims in his testimony has tried to disguise its character by a smoke-screen of words, preceding it and following it, and by the statement that he was "completely in accord" with my attitude as set forth in that cablegram. But the fact is that that dispatch was the sharpest reminder that I could send him without making it a severe reprimand.

I would not have sent that peremptory cablegram if it had not been necessary. The protection of our troops transcended every other naval duty. The fathers and mothers who had intrusted their sons to naval protection looked to the Navy to safeguard them to France. I was daily in close touch with the Secretary of War and responsible Army officers, as were also Admiral Benson, Chief of Operations, and Capt. Pratt, Assistant Chief of Operations. We felt deeply our

responsibility. Admiral Sims's course in regard to the first convoy and his later dispatches, like that of July 14, stating that it was "impossible" for him to "guarantee safe escort protection through submarine zone for troops, troop supplies, and valuable Government cargoes"—you observe, gentlemen, whenever he speaks of cargoes, he speaks of "valuable cargoes" and "important cargoes," and whenever he speaks of troops he does not speak of the value of human life—his statement that it was "impossible" for him to "guarantee safe escort protection through submarine zone for troops, troop supplies, and valuable Government cargoes" unless various conditions were fulfilled, caused such grave anxiety that, to remove any doubt whatever about troopships being protected and insure the provision of destroyers as escorts, I sent that cablegram to Sims warning him that he must "be certain to detail an adequate convoy of destroyers," and, in making details, must "bear in mind that everything is secondary to having a sufficient number to insure protection to American troops."

TROOPSHIPS LEFT WITHOUT DESTROYER ESCORT.

When the first troops reached France, Admiral Sims ordered to Queenstown all the destroyers that escorted the convoy, leaving our transports without returning escort. You can imagine my surprise when I received the following cablegram from Admiral Gleaves, commanding the convoy:

PARIS, July 4, 1917.

SECRETARY NAVY,
Washington:

Destroyers which came with convoy to Europe have received orders from Vice Admiral Sims to proceed immediately to Queenstown. One group of convoy is now ready for return to the United States. The departure of the destroyers leaves the transports without protection. Two submarines are now operating off the entrance. I have informed Vice Admiral Sims that the convoy must have an escort of destroyers, but his order was repeated. Under these circumstances I consider it unsafe to permit the transports to leave the port.

I am holding the convoy ships here until further orders from Secretary of Navy. I request that the commander of the United States forces in European waters be ordered to send a division of destroyers to escort the transports through danger zone, so that my orders from the Secretary may be carried out. The French Government can not give sufficient protection.

GLEAVES.

This was transmitted through the naval attaché at Paris, by request of Admiral Gleaves, who was at St. Nazaire.

Admiral Gleaves also sent another message from St. Nazaire, as follows:

Three transports ready to-day; three to-morrow. The remainder except *Momus* will be ready to leave by July 9, 1917, but I have no destroyer escort. All American destroyers were ordered to Queenstown by Admiral Sims. French can not give adequate protection. Must have a division of American destroyers. Upon their arrival transports will sail.

SIMS ORDERED TO FURNISH ADEQUATE DESTROYER ESCORT.

Upon receipt of Admiral Gleaves's dispatches, the following order was sent to Admiral Sims:

NAVAL ATTACHÉ,
American Embassy, London:

(Old) For Vice Admiral Sims, U. S. S. *Melville*. (New) When informed by Rear Admiral Gleaves of date of sailing of troop convoy take steps to furnish it with adequate destroyer escort.

ADMIRAL BENSON.

At the same time the following dispatch was sent to Admiral Gleaves:

NAVAL ATTACHÉ,
American Embassy, London:

(Old) For Rear Admiral Gleaves via Vice Admiral Sims, U. S. S. *Melville*. (New) Make all preparations for sailing of convoy at earliest date. Inform Admiral Sims of proposed date of sailing and request destroyer escort. Expedite date of sailing of convoy 17004.

ADMIRAL BENSON.

At that time, you remember, Mr. Chairman, the getting of the troop ships back quickly was of the very highest importance, and so Admiral Benson says "expedite date of sailing of convoy."

ORDERED DESTROYERS TO QUEENSTOWN OR PORTSMOUTH.

Admiral Sims had peremptorily ordered all the escorting destroyers to Queenstown or Portsmouth for use with merchant shipping, refusing to allow Admiral Gleaves to retain them for outgoing escort of our troopships. Following is a copy of Sims's order:

22361.

Marine Paris a commandant marine Saint-Nazaire, pour Admiral Gleaves.
Admiral Sims,

Commandant Force Navale U. S. European:

Citation:

Vital shipping is being lost through delay in return of destroyers to their operating areas. They must be dispatched immediately and not held for outgoing escort.

Ships of convoy should be escorted clear of coast by French vessels and thence disperse and proceed independently. *Wilkes* proceed immediately Portsmouth; Other destroyers to Queenstown. Fin de citation.

Certifie conforme.

Saint-Nazaire, le 3 Juillet 1917.

Le capitaine de vaisseau, commandant de la marine, E. Cully.

GLEAVES SO SURPRISED HE DOUBTED AUTHENTICITY OF SIMS'S ORDER.

Admiral Gleaves was so surprised by Sims's first order to this effect, which was transmitted to St. Nazaire by telephone, that he doubted its authenticity. He sent a radio message to Admiral Sims in cipher requesting that the message be confirmed in code, and, further, telephoned to Lieut. Commander Sayles, attaché in Paris, requesting him to trace the message from Paris. Admiral Sims was informed that all our ships must have destroyer escort. But his order was reiterated, and the destroyers left for Queenstown and Portsmouth.

Following is a copy of Admiral Gleaves's memorandum regarding this order:

ST. NAZAIRE, FRANCE, *July 3, 1917.*

Memorandum for senior officer present.

The following communication has been received from Vice Admiral Sims. In view of the fact that this communication came by telephone, the convoy commander is of the opinion that a reasonable doubt exists regarding its authenticity.

"Admiral Sims donne l'ordre de renvoyer immédiatement le destroyer *Wilkes* a Portsmouth. Le lui signaler au besoin par T. S. F. En outre, les destroyers Américains ne doivent plus être employés aux escortes. Ils doivent tous être renvoyés immédiatement a Queenstown.

"Certifie conforme."

The following action has been taken: A radio has been sent to Vice Admiral Sims in cipher requesting that the above message be confirmed in code. Further, the naval attaché in Paris, Lieut. Commander Sayles, has been communicated with by long-distance phone and requested to trace this message from Paris.

If this message is repeated or verified, you will immediately comply with the requirements contained therein and direct all destroyers to proceed immediately.

You will then cable to the Secretary of the Navy, via naval attaché Paris, as follows:

Destroyers which accompanied convoy to Europe have been ordered by Vice Admiral Sims to proceed immediately to Queenstown. Convoy groups are now being assembled for return passage to United States. Departure of destroyers leaves transports without adequate protection. Two submarines now operating off port entrance. Under circumstances consider it unsafe to dispatch transports from this port, and will hold all vessels of convoy here until instructions are received from Navy Department. Request commander United States naval forces in European waters be directed to send division destroyers to furnish escort to transports through danger zone, in order that department order to this effect may be complied with. French can not provide proper protection.

Lieut. Perkins, force engineer in the *Seattle*, has full cognizance of the situation.

ALBERT GLEAVES,
Rear Admiral United States Navy, Commander Destroyer Force, Atlantic Fleet,
Commander U. S. Convoy Operations in the Atlantic.

(Commander of United States forces was informed that everything must have destroyer escort. His order was reiterated.

GLEAVES ALSO APPEALED DIRECT TO SIMS.

Gleaves then appealed direct to Sims, as well as to the Navy Department. Following is a copy of that message and notation, from the files of Sims's headquarters in London:

Received: July 5, 1917.

Message from Admiral Gleaves to Admiral Sims of this present date.

Eight transports and two cruisers ready to sail, and can not for lack of safe escort. French can only provide two or three slow torpedo boats. This is entirely inadequate. Navy Department has cabled for quick return of transports. Request five destroyers be sent immediately for this duty. *Allen* went to sea with first group and was ordered to return to St. Nazaire before your order was received. Please acknowledge and inform me probable date of arrival of destroyers.

GLEAVES.

Note by Lieut. Commander Babcock: The above message was received by me from naval attaché, Paris, over French telephone. The naval attaché told me also that total French force at St. Nazaire consisted of three torpedo boats, speed under 15 knots, and one British sloop under French flag, and two French sloops, and that the services of these ships for escort duty of our transports involved abandonment of escort duty for French trade coming into St. Nazaire.

Admiral Gleaves's report shows that the first group had already sailed, accompanied by three destroyers, July 2, before Sims's message was received ordering them to proceed immediately to Queenstown. The second group of five transports sailed July 5, with an escort of only three French patrol vessels. On July 8 five destroyers arrived at St. Nazaire, and these escorted the third group, which sailed July 9, and the fourth, which sailed July 14.

SIMS'S ALLEGATION IN RELATION TO FIRST TROOP CONVOY.

Admiral Sims devoted several thousand words to a tirade in regard to this first convoy, but did he tell you about his ordering the destroyers to Queenstown and leaving our troopships at St. Nazaire without escort?

This may account for the fact that while in his letter of January 7, Admiral Sims did not mention troop transportation or any alleged errors of the department in connection therewith, in his testimony before your committee he tried to produce the impression that the department's arrangements endangered this convoy and that it was only by good luck that it arrived safely.

Sims makes much of alleged confusion and misunderstanding in regard to that convoy. If there was confusion and misunderstanding, it was on his side of the water, not on this. There never was a convoy for whose protection more complete arrangements were made. Four cruisers, 3 naval transports, 13 destroyers, 2 converted yachts and 2 fuel ships were assigned as escorts to proceed with the transports from New York clear across the Atlantic. To make assurance doubly sure, we also ordered Admiral Sims to furnish one division of destroyers to escort each group through the submarine zone. The one criticism made by Capt. Pratt, in his testimony, was that this was "uneconomical"; that is, that we provided more escort protection than was really necessary. Our policy was to be certain to protect the troops. It was better to provide too much escort than not enough. The policy and purpose of the department was to absolutely protect the lives of American soldiers at all pains, at all costs. The lives of American soldiers were dearer to us than any and everything else.

PLAIN INSTRUCTIONS SENT TO SIMS.

Admiral Sims's instructions regarding the first convoy were as clear as words could make them. Read the dispatch I sent him June 4, 1917, which he says he received June 6:

From: Secretary of the Navy, Washington.
Very confidential.

A convoy of American troops to France will sail about the 9th of this month. It is now contemplated to despatch four convoys, in groups of three or four transports, under separate escort. The first three groups have troops, and sail at about six hours interval. The first groups are of faster speed. The fourth group, bearing animals, will sail last, and may be delayed. All of the groups sail for a meeting place at sea, the location of which you will be informed of later. The meeting place will be reached, by the first group, about one week after sailing. The third and fourth groups in about nine days. I will advise you later of the dates and hour of sailing, and of arrival at the meeting place.

I hereby instruct you to furnish escorts, to consist of one division of destroyers for each convoy group, from the point of meeting to the port of debarkation. When this escort duty is finished those detailed to this service will be returned to their present service. Rear Admiral Gleaves will accompany the first group, in *Seattle*, and will have command of all operations of convoy.

DANIELS, *Secretary of Navy*.

Note this sentence in the last paragraph:

I hereby instruct you to furnish escorts, to consist of one division of destroyers for each escort group, from the point of meeting to the port of debarkation.

Could words be plainer? How could he possibly have any doubt as to whether he was to furnish escorts for all groups?

SIMS BEGAN TO RAISE QUESTIONS ABOUT ESCORT.

Instead of carrying out his orders, and looking after the escort of these troopships, Sims began to muddle up the situation and question whether we should use our own destroyers to protect our own troopships, sending me the following dispatch:

Sent: June 8, 1917.

To: Secretary of the Navy (Operations).

Through: State Department.

Eleven. Escort and convoy duty within danger zones is performed in accordance with experience, and each case is dependent upon disposition of allied forces at time, and latest information concerning enemy activities. Generally speaking duty is carried out in relays, ships escorting only in their assigned areas, and passing on the convoy to ships of next area on the route of the convoy. As our destroyers generally

operate farthest to westward, we participate in majority of escort duty. In view of above, suggest that, in future, the number and nationality of ships to be detailed for escort duty, be not specifically ordered by the department, but be determined here, dependent upon the disposition of allied forces, and circumstances, at the time of arrival at appointed rendezvous. Such a course will not only facilitate convoy duty, but also other military operations of submarine campaign.

Sims.

ORDERED TO USE OUR OWN DESTROYERS.

This dispatch of Sims surprised me. I did not see why he was raising questions about subsequent convoys and things in the future when the job in hand, his job and our job, was to get these troops across safely. I immediately sent him the following cablegram:

JUNE 10, 1917.

To: Alusna, London.

Department considers it essential, on account of the present sensitive public opinion that the escort orders for the first convoy, already issued, be executed by our own destroyers. The soundness of your recommendations are recognized by the department. For subsequent convoys, not more than three transports in one group, with escort of not less than one cruiser and three destroyers per group, is the present policy of the department. Please write giving outline plan for handling the European end of the escort duty for further convoys, and mention the numbers and types of vessels likely to be assigned to escort each group of transports, throughout each section of the danger zone. 21009.

DANIELS, *Secretary of the Navy.*

Just before the first groups sailed (they departed from New York June 14) the following dispatch from Sims was received:

Sent: June 12, 1917.

To: Secretary of the Navy.

Twenty-one. 21009. Letter follows next mail. Necessary for safety that, for future troop convoys, rendezvous and routes be designated and controlled from here, based upon latest information enemy activity. Initial orders, on sailing, should be subject to change by radio, after sailing. Troop ships should zigzag together, two to four point changes, irregularly. Destroyers should zigzag independently, avoiding regularity of position in reference to convoy. In accordance with British experience, when escorting cruiser enters dangerous submarine zone she is of practically no protection to convoy, and virtually becomes one of convoy.

It is necessary in danger zone that radio be not used, except for most important messages. Evidence indicates that radio direction finders have been able to locate large forces of radio work of distinctive nature. While in zone, experience indicates that convoy commander should leave maximum initiative and freedom of movement to senior destroyer commander, in view of his recent experience, and later knowledge of enemy methods. Enemy submarines do not have beam tubes. Line column (this word should probably have been "division") recommended, with force concentrated as much as consistent with zigzagging, this to reduce visibility of the force and facilitate offensive operations of destroyers. It is now practice here to furnish escort of one destroyer for single troop transport, three for two transports, four for three or four transports, and one destroyer per transport when number is greater than four.

Sims.

GLEAVES HAD GIVEN FULL INSTRUCTIONS COVERING EVERY CONTINGENCY.

If Sims had any suggestions as to what the transports should do on the way across, why did he not send it before? His first dispatch of June 8 did not outline any measure of procedure. But Admiral Gleaves, who was in personal command of the first group, had evolved a doctrine of conduct and given instructions to his officers and crews that covered every contingency, including what they were to do in case of submarine attack. That doctrine, briefly stated, was:

1. The use of maximum speed through the danger zone.

2. Trained lookout watches, made effective by an efficient system of communication between officers of the deck and fire-control watch.

3. Continuous, alert gun watches in quick communication with lookouts through the fire-control officer.

4. Constant zigzagging.

5. Minimum use of radio; reduction of smoke to a minimum; darkening of ships at night; throwing nothing overboard lest it point the trail.

6. A trained officer always alert and ready to use the helm to avoid torpedoes.

7. Specially prearranged day and night signals between ships on manner of maneuvering when submarines were sighted.

8. Use of depth bombs by all transports and escorts.

If there was any panic or confusion regarding those transports, it was not on this side of the water, or in the convoy. The transports under Gleaves's command were sailing without confusion, each officer knowing just what he was to do. But Sims was bombarding the department with cablegrams.

SIMS DEMANDED HE BE INFORMED MONTHS AHEAD.

On the very day the troopships sailed, June 14, Sims sent a long cablegram in which he said:

There are not now sufficient vessels available for escort duty, to insure safety of all vital supplies—

Bear in mind, Mr. Chairman, it is always "vital supplies;" supplies, always supplies, supplies; never life; never human life—

and also prospective movements of our troops and their supplies.

It is "our troops"; not "vital troops," but "vital supplies."

The CHAIRMAN. Just what would "vital troops" mean, Mr. Secretary?

Secretary DANIELS. Vital is life—essential. In other words, he put supplies as more essential than he did troops.

The CHAIRMAN. Of course all troops are vital, are they not?

Secretary DANIELS (continuing reading):

As our troops and their supplies will approach European coast outside of zones used by shipping and shipping convoys, it is mandatory that information be given immediately as to the probable numbers, and times of sailing, of all army shipping in next three months, as on this depends the program of merchant ship convoys, which must be arranged some time ahead. The approach of our first army convoys will seriously embarrass the shipping situation, as it will require all destroyers based on Queenstown, thus necessitating entire suspension of patrol and escort duty in that area. I can not lay too much stress upon the urgent necessity of increasing the destroyer and other patrol forces here with utmost dispatch.

Urgently request answer in next 24 hours, if possible, as to prospective movements of all Army shipping in next two or three months. This information is of vital importance. Also request information as to probable additions to antisubmarine forces these waters. The Admiralty informs me that present prospect is that if oil supplies are protected food supplies can not be. I again urgently recommend that all destroyers that can be brought to the coast of Ireland be sent at once.

Note that in this dispatch Sims demanded that we inform him "in the next 24 hours" as to movements of all Army shipping "in the next two or three months." Neither the Army or the Navy knew or could know, with any degree of accuracy, what troops or supplies could be sent in the next two or three months. Both Army and Navy were using every possible facility, to get troops and sup-

plies to Europe. Owing to the shortage of transports of our own, the Army was sending troops on passenger steamers, when space could be secured. Supplies were being shipped on cargo vessels as space was available. Yet this information, some of which could not be determined until just before sailing, Sims demanded for months in advance. That is a fair sample of his many unreasonable and impossible demands.

Notified of sailings and rendezvous.

Immediately after the sailing of the first three groups the following dispatch was sent Admiral Sims:

To: Vice Admiral Sims.

No. 20.

The convoys are arranged in groups.

Three groups sailed June 15 from New York.

Group 1 will arrive 6 a. m. June 23 at first rendezvous lat. 48° 55', long. 24° 20'.

Group 2 will arrive 4 p. m. June 23 at first rendezvous lat. 48° 10', long. 25° 100'.

Group 3 will arrive 6 a. m. June 25 at first rendezvous lat. 46° 45', long. 23° 65'.

The French Admiralty will designate second rendezvous and forward same to escorts via United States destroyers sent by you to first rendezvous.

Group escort flagships:

Group 1, U. S. S. *Seattle*.

Group 2, U. S. S. *Birmingham*.

Group 3, U. S. S. *Charleston*.

The sailing date for group 4 will be communicated later.

This information must be sent most confidentially and immediately to naval attaché, Paris.

Acknowledge receipt of this message for Vice Admiral Sims.

On June 18 Sims sent the following cable:

To: Secretary of the Navy.

No. 20 acknowledged. Please direct convoys to proceed from first rendezvous on course east, in absence of other instructions and until escort joins. They should use 600-meter wave length, and will receive instructions concerning rendezvous or enemy, from Queenstown via Valencia, call sign G. C. K., or via our destroyers. Use sig. code cypher.

SIMS.

When the fourth group sailed June 17 the following dispatch was sent:

To: Alusna.

For: Vice Admiral Sims.

No. 21.

Convoy group No. 4, U. S. S. *Hancock*, flagship, sailed June 17. Will arrive at rendezvous, with U. S. destroyers, latitude 47° 40' north, longitude 23° 00' west, at 6 a. m., June 28. Communicate this in most confidential manner to naval attaché, Paris. 14018.

DANIELS.

Sims says he was in doubt as to whether he was to furnish escort for this group, though he had been cabled positively to furnish escorts for all groups. He cabled asking for this information, and on June 21 the following dispatch was sent in reply:

To: Alusna.

From: Secretary of Navy.

For: Vice Admiral Sims 28.

Your 120. You are to supply destroyer escort for Army convoy groups 1, 2, 3, and 4. Please inform the naval attaché at Paris. 19021.

SIMS AT ADMIRALTY HOUSE AT QUEENSTOWN.

As you will see, there was no confusion or inconsistency in the dispatches and orders from the Navy Department. They are so perfectly clear it is hard to see how Sims could have misunderstood

them. If there was any mix up or confusion, it was on the part of Sims and the officers in London and Paris, for this is the first I ever heard of it.

Where was Sims during this period when our troops were going across the water? Not at his headquarters in London; not in Paris or St. Nazaire. He was at Queenstown for a week occupying Admiralty House, and acting in place of Admiral Sir Lewis Bayly, under whose command our destroyers operated, who was taking the first vacation he had enjoyed since the war began. Admiral Sims had sent me the following dispatch on June 14, which I received after the troop convoy had sailed:

Sent: June 14, 1917.

To: Secretary of the Navy (Operations).

Through: Admiralty.

Twenty-seven: Arrive Queenstown 16th, act in place of vice admiral, commanding during his absence about 17th to 24th. Request all cables for me be sent in British code to Admiralty, London.

Sims.

I did not want to deprive him of the honor or the enjoyment of a week's command at Queenstown, the only time during the war when he exercised direct command over any of our vessels. I supposed that he had, of course, before leaving London, made arrangements that would prevent any confusion in dispatches or delay in handling and acting upon them. His testimony before this committee is the first time I ever heard that there was any confusion in regard to this first convoy.

NO DANGER OF SUBMARINES, SAID SIMS—CONVOY ATTACKED THAT NIGHT.

While our first convoy of troops was on its way to France, information we had received led us to fear that enemy submarines were lurking in its path and might attack. Though we had no information definite enough to confirm our suspicion, I sent the following cablegram to Admiral Sims on June 20, 1917:

There is a prevailing impression here that enemy submarines are being withdrawn from the Mediterranean to be used to oppose the landing of United States troops in Europe.

Admiral Sims replied in a cablegram dated June 22, 1917:

There is no evidence to indicate enemy submarine movement aimed at American troop convoys. Losses in Mediterranean are increasing.

The very night Admiral Sims sent that dispatch the first group of the convoy was attacked, according to the report of Admiral Gleaves, who was in personal command of the expedition.

Sims's various attempts, in the medal awards hearings and elsewhere, to discredit the submarine attacks reported by Admiral Gleaves and the other officers, are of a piece with his attempts to throw doubt upon the entire conduct of this first expedition.

Admiral Sims said in his testimony before this committee at the hearing on January 17, 1920, that the first troop convoy was not attacked by submarines, and that there was not a submarine within 300 miles of the place where the attacks are said to have occurred. I quote the following from the record of that hearing:

You doubtless all remember having read in the press the famous battle which was reported on the 4th of July. That was an attack said to have been made by a whole lot of submarines against the first troop transports that went over.

The French Admiralty and the British Admiralty got out charts nearly every day showing where all the submarines were, and the chart that corresponds to the time that our first troop transports went over shows that there was no submarine within 300 miles of that position, and that has been officially reported in a report inclosing these maps, etc., that I sent to the Navy Department.

ATTACKS FIRST REPORTED BY SIMS HIMSELF.

That the first convoy was attacked by submarines was reported, without qualification, by Admiral Sims himself, who sent the following urgent cablegram to the Secretary of the Navy on June 30, 1917:

First group attacked by submarines, longitude 25 degrees 30, before arriving at first rendezvous. Second group attacked longitude 8. Strongly believe that enemy obtained information regarding movements of destroyers and also movements of troop convoys by intercepting and deciphering dispatches sent me in naval attaché's code.

On the next day, July 1, 1917, Sims sent another dispatch in which he said:

It is practically certain that the enemy knew positions of the first rendezvous and accordingly sent a submarine to intercept before juncture with destroyers.

Admiral Sims, as will be seen by these dispatches, not only made the unqualified statement that the convoy had been attacked, but also stated that it was practically certain that the Germans knew the positions of the first rendezvous and sent submarines to intercept the convoy. If we could not believe what Sims so positively stated in these dispatches, what could we believe?

Admiral Sims, in his attempt to discredit our transport force and its commander, would have your committee believe that the statements he made on June 30 and July 1, 1917, were not to be relied upon. We believe the statements he made then were true, and the statements he made later and repeated before your committee on January 17, 1920, were, to use a mild term, incorrect. The reports made by Admiral Gleaves and the commanders of the ships in that convoy gave a detailed account of the entire encounter.

FRENCH REPORTS AND SINKINGS SHOWED SUBMARINE WAS IN THAT VICINITY.

Admiral Sims told this committee that the British and French charts of that time show no submarine was within 300 miles of the point where the first attack occurred.

Admiral Gleaves said in his report, made just after the first convoy arrived:

8. When I was in Paris, I was shown, by the United States naval attaché, a confidential official bulletin of information issued by the General Staff, dated July 6, which contained the following:

"Ponta Delgada, Azores, was bombarded at 9 a. m., July 4. This is undoubtedly the submarine which attacked the *Fern Leaf*, on June 25, 400 miles north of the Azores and sank the *Benguela* and *Syria* on the 29th of June 100 miles from Terceira (Azores). This submarine was ordered to watch in the vicinity of the Azores, at such a distance as it was supposed the enemy American convoy would pass from the Azores."

Admiral Gleaves continues:

9. It appears from the French report just quoted above, and from the location of the attack that enemy submarines had been notified of our approach and were probably scouting across our route. It is possible that they may have trailed us all day on June 22 as our speed was well within their limits of surface speed, and they could have easily trailed our smoke under the weather conditions without being seen; their failure

to score hits was probably due to the attack being precipitated by the fortuitous circumstances of the *Seattle's* helm jamming and the sounding of her whistle, leading enemy to suppose he had been discovered.

TRACED COURSE OF SUBMARINE TO AZORES.

Admiral Gleaves' report of July 12, 1917, subject: Attacks on convoy by submarines on the nights of June 22, June 26, and June 28, 1917, states (par. 1):

About 10.15 p. m., June 22, the first group of the expeditionary forces, of which the *Seattle* was the leader, encountered enemy's submarines in latitude 28° 00' north, longitude 25° 50' west.

This position is 500 miles north of the Azores. The French official report stated that, on June 25, three days after the attack on the United States convoy, the *Fern Leaf* was attacked 400 miles north of Azores, only 100 miles from the place where the convoy was attacked. On June 29, four days later, the *Benquela* and *Syria* were sunk by a submarine 100 miles north of Terceira, Azores. On July 4 Ponta Delgada was bombarded by a German U-boat which shelled the town until it was driven off by the U. S. S. *Orion*, which was in port at the time. Hundreds of people in Ponta Delgada saw the submarine as it was on the surface in plain sight, and the bombardment took place at 9 a. m., in broad daylight. The submarine, from its position, could not see the *Orion*, and when the United States ship opened fire, the U-boat quickly submerged. The French official report, as quoted by Admiral Gleaves, said:

This submarine was ordered to watch in the vicinity of the Azores, at such a distance as it was supposed the enemy American convoy would pass from the Azores.

We had no reason then and have no reason now, to doubt Admiral Sims's own positive statements, made at the time, that the convoy was attacked; the reports of Admiral Gleaves, and the official report of the French General Staff to the same effect. This is not the first or only instance in which Admiral Sims has stated before this committee that statements made in his official dispatches to the department during the war were not to be relied upon, another instance, you recall, being recounted in paragraph 76 of his letter of January 7.

I ask leave to insert in the record the report of Admiral Gleaves in regard to the attacks on the first convoy, as well as his general report of the entire convoy which are submitted herewith, in which he gives in detail the evidence of all the officers and men on ships that saw submarines, and tells about their attacks.

The reports above referred to are here printed in full in the record as follows:

DESTROYER FORCE, ATLANTIC FLEET,
U. S. S. "SEATTLE," FLAGSHIP,
June 24, 1917.

From: Commander destroyer force, commander United States convoy operations in the Atlantic.

To: Commander in chief, Atlantic Fleet.

Subject: Report of convoy of first United States Expeditionary Force to France.

Inclosures: 2 (Specimen orders for convoy group); (copy of letter from Maj. Gen. Sibert, U. S. A.).

1. I have to report that the orders contained in the department's secret order of June 13, 1917, have been accomplished, and the first United States Expeditionary Force has been safely disembarked in France. Convoy operations were conducted in accordance with the President's order "Naval convoy of military expeditions" of

May 27, 1917. All vessels of convoy and escort have been returned to the United States with the exception of the destroyers and the *Kanawha*, which, by direction of the department, proceeded to Queenstown.

HISTORY OF OPERATION.

(A) ASSEMBLY OF ESCORT AND CONVOY.

2. On May 25, 1917, the commander destroyer force, Atlantic Fleet, was designated commander United States convoy operations in the Atlantic, and was directed to organize and escort to accompany to a port in France the first United States Expeditionary Force, sailing from New York on June 9, 1917.

3. The vessels designated by the War Department as transports for the troops, impedimenta and stores, viz: Steamship *Tenadores*, steamship *Saratoga*, steamship *Havana*, steamship *Pastores*, steamship *Monus*, steamship *Artilles*, steamship *Lenape*, steamship *Mallory*, steamship *Finland*, steamship *San Jacinto*, steamship *Montanan*, steamship *Dakotan*, steamship *El Occidente*, and steamship *Edward Luckenbach*, were assembled at New York, N. Y.

4. The convoy commander proceeded in the *Seattle* to New York, arriving at that port June 3, 1917. Inspection of the transports showed that the condition of work was such that the transports could not sail on June 9, and the date of sailing was changed to June 14.

5. The following vessels were assigned as escort: The cruisers *Seattle*, *Birmingham*, *Charleston*, and *St. Louis*; the naval transports *DeKalb*, *Hundercon*, and *Hancock*; the destroyers *Wilkes*, *Terry*, *Roe*, *Fanning*, *Burrows*, *Lamson*, *Allen*, *McCall*, *Prinston*, *Parker*, *Shaw*, *Ammen*, and *Flusser*; the converted yachts *Aphrodite* and *Corsair*; and the fuel ships *Cyclops* and *Kanawha*. The vessels, with the exception of the *Henderson*, *Shaw*, and *Parker*, were ready to sail on June 9. The delay until June 14 enabled the *Henderson* and *Parker* to get ready in time to sail with their respective groups and the *Shaw* to reach New York from San Francisco, which she did in the unprecedented time of 18 days, and reported ready for service.

(B) PREPARATION OF TRANSPORTS FOR DEPARTURE, AND DELAYS INCIDENT THERE TO.

6. The vessels chartered for transport service required certain work to fit them for this duty. In addition to changes necessary for the accommodation of troops, installation of armament, communication system, lookout stations, and other features pertaining to the safeguarding of the transports, had to be accomplished. This work was divided among various firms and contractors, companies from which the ships were chartered, and the New York Navy Yard. The short period of time allowed for preparation, the lack of workmen, and the above-mentioned divided control of work resulted in many vexatious delays. It was due in a large measure to the untiring effort and zeal of the naval officers attached to the transports that these vessels were finally made ready to sail on June 14. The work on the majority of transports was not completed until the night prior to sailing.

7. The inspection by the senior naval officer attached to the *Momus*, who was the representative on board of the convoy commander, indicated that the *Momus* was in need of a thorough overhaul at the time when she was chartered. The *Momus* seriously delayed by break-downs the passage of the group to which she was attached. On the arrival at destination, repairs by a dock yard were necessary before the *Momus* could sail on the return passage.

(C) ORDERS ISSUED.

8. The following confidential orders and instructions were issued to all vessels of escort and convoy. Copies of these orders have been furnished to the commander in chief and the department.

- (1) President's order for convoy of military expeditions.
- (2) Convoy commander's orders for ships in convoy.
- (3) Convoy commander's orders for target practice.
- (4) Operation order covering grouping and departure of the expedition.

9. In addition to the above, each vessel of the convoy and escort was given sealed instructions which contained the name of the port of destination and the route of the convoy group.

(D) DEPARTURE.

10. Prior to departure the vessels of each group had been assembled as nearly as their state of readiness permitted, two groups in the North River and two groups off Tompkinsville. The departure of the first three groups, consisting of transports carrying troops and their escort vessels, had been ordered for 8 a. m., 10 a. m., and noon, June 14, 1917, respectively, from Ambrose Channel lightship. On the morning of June 14 a dense fog in New York Harbor and its vicinity permitted visibility of only 200 to 500 yards. The movement of a large number of vessels under the above conditions was difficult in the extreme, but in spite of the fog, Groups I, II, and III sailed in close succession with only a few hours delay. The fourth group was scheduled to sail at 6 a. m., June 16. Delays in loading the transports which carried animals and cargo, prevented this group from sailing until the morning of June 17.

(E) PASSAGE OF GROUPS.

11. Group I.—Composition:

Escort: *Scuttle, DeKalb, Wilkes, Terry, Roc, Corsair.*

Convoy: *Tenadores, Saratoga, Havana, Pastores.*

12. The *Terry*, while standing out of New York Harbor for rendezvous at Ambrose Channel Lightship, fouled the net in the Narrows. The *Terry* returned to the New York Navy Yard for repairs to propellers and did not sail with Group I.

13. Group I, less *DeKalb, Wilkes, Havana*, and *Terry*, took departure from Ambrose Channel Lightship at 2 p. m., June 14, 1917. On account of fog it was impossible to assemble Group I at the lightship, and the *DeKalb, Wilkes*, and *Havana* had passed the lightship and stood to the eastward before the arrival of the remainder of group I. At 8 a. m., June 15, the *DeKalb, Wilkes*, and *Havana* joined Group I.

14. Due to the inability of the *Corsair* to maintain the group speed of 12½ knots, she was directed on June 17 to drop back to Group II, and the *Fanning* was brought up from Group II to replace the *Corsair*. The *Fanning* joined Group I on the morning of June 18 and continued with group to destination.

15. At sunset June 16, the *Roe* developed condenser trouble and reported using excessive amount of fuel to maintain speed. On the morning of June 17 the *Roe* was directed to lie to, repair condensers, and then return to the United States. At 6.30, a. m. June 20, sighted the *Maumee* and *Henley*. The *Wilkes* and *Fanning* oiled from the *Maumee* and convoy set course for rendezvous with destroyers from England. At 10.15 p. m., June 22, latitude 48° 00' N., longitude 25° 50' W., Group I was attacked by submarines. In all, the wakes of five torpedoes were sighted. No vessels of convoy or escort were hit. This attack is covered by separate report.

16. At 11 p. m., June 22, radio was received from the *Cushing* giving a rendezvous to the eastward of the rendezvous designated for meeting the destroyers from England. The *Cushing* requested that Group I steer for this rendezvous and stated that the *Cushing* and destroyers would intercept group en route to new rendezvous. Convoy passed through first rendezvous at 5 a. m., June 23, and changed course for the second rendezvous. At 8.50 a. m., Group I was joined by destroyers *Cushing, Jacob Jones, Conyngham, Nicholson*, and *O'Brien*. The *Winslow* joined at 11 a. m., June 28.

17. It may be noted here that the accuracy with which our destroyers from England intercepted all convoy groups at the time and place expected is commendable. The convoy commander has been informed that the United States destroyers operating off Ireland never fail to pick up the ships which they are sent to meet. Apparently this facility in making contacts does not exist among the vessels of either the French or English.

18. At 11 a. m., June 23, changes course to pass to the northward of Belle Isle in accordance with request of the commanding officer of the *Cushing*, and continued on this course until 6.10 a. m. June 25, when the French sloop *Regulus* with Commander Sayles, United States Navy, United States naval attaché to France, on board, and the French patrol ship *Oise* made contact with Group I.

19. At the request of the *Regulus*, Group I changed course to pass to the southward of Belle Isle. With the *Regulus* leading, passed to the southward of Belle Isle and stood in to Croisic Roads. Anchored in Croisic Roads at midnight 25–26 June and established patrol of destroyers.

20. From Belle Isle to Croisic Roads was the most anxious period of the voyage. When group I was passing to the southward of Belle Isle, radio report was received that two hours previously two submarines had been sighted 30 miles to the southward of the group's position, both submarines standing to the northward. In other words, they could easily have been within six miles of the convoy at the time the radio was received. In spite of this fact, all vessels of the group were compelled to slow well

outside the entrance to Quiberon Bay and take on pilots. Night came on and conditions were favorable for a sudden attack. The pilot boats were exceedingly slow in coming alongside, and apparently much misunderstanding existed among the pilots. German mines had been thickly strewn in the neighborhood of Belle Isle, and the approaches to Quiberon Bay and St. Nazaire. It was considered inadvisable to proceed without pilots. After much delay, which could have been avoided had proper preparations been made beforehand, the pilots were finally taken on board. The group anchored for the night in Croisic Roads, an open roadstead, with only such protection as the destroyer patrol could furnish. That the group was not attacked at this time seems inexplicable. Had it not been for the delay mentioned above, Group I would have anchored off St. Nazaire at 8.30 p. m., before dark, as was planned and contemplated.

21. Group 21 got underway at 4.30 a. m., June 26, and at 6.45 a. m., June 26, anchored in the harbor of St. Nazaire.

22. The weather throughout the trip was fair and mild, with the exception of the first two days when heavy fog was encountered. All vessels of convoy and escort held target practice en route, firing at towing spar with imitation periscope attachment. Group I zigzagged continuously during daylight throughout the passage until arrival on soundings off the coast of France, and began night zigzagging June 22, the night of the attack. The speed of the group was $12\frac{1}{2}$ knots until joined by destroyers from England, when highest speed of group was maintained, varying from 14 to $15\frac{1}{2}$ knots. The route of the group was as follows:

Ambrose Channel Lightship to: Latitude $39^{\circ} 35' N.$, longitude $69^{\circ} 40' W.$; thence to latitude $39^{\circ} 35' N.$, longitude $46^{\circ} 15' W.$; thence to latitude $43^{\circ} 20' N.$, longitude $38^{\circ} 10' W.$; thence to latitude $48^{\circ} 55' N.$, longitude $24^{\circ} 20' W.$; thence to St. Nazaire, France.

22. The following formation was maintained by Group I: Transports in double column, distance and interval 1,200 yards; *Seattle* two points on starboard bow of leading transport of right column, distance 1,000 yards; *DeKalb* two points on port bow of leading transport of left column, distance 1,000 yards; destroyers on flanks and ahead.

23. Group II.—Composition:

Escort: *Birmingham*, *Burrows*, *Fanning*, *Lamson*, *Aphrodite*.

Convoy: *Henderson*, *Momus*, *Antilles*, *Lenape*.

24. Group II took departure from Ambrose Channel Lightship at 3 p. m., June 14, 1917. On the morning of June 17 the *Fanning* was despatched to join Group I.

25. At noon, June 18, *Lamson* was detached and directed to proceed to Boston, Mass. At 7 a. m., June 21, the *Burrows* refueled from the *Maumee*. The *Corsair*, which had dropped back from Group I joined Group II. From the *Maumee*, Group II set course for rendezvous with destroyers from England. Before arriving at this rendezvous a radio was received from the *Wadsworth* requesting Group II to steer for rendezvous to the eastward. This was done and before arrival at this new rendezvous Group II was joined by the *Wadsworth*, *Tucker*, *Benham*, *Cummings*, and *Nicholson*. At the request of the commanding officer of the *Wadsworth*, course was set to pass to the northward of Belle Isle. At 11.50 a. m., latitude $47^{\circ} 01' N.$, longitude $26^{\circ} 28' W.$, the *Birmingham*, which was zigzagging 4,000 yards in advance of the convoy, crossed the wake of a submarine. This wake extended for nearly a mile at right angles to the course of the group and was clearly defined. The disturbed water of the wake was still in motion when the *Birmingham* crossed it. The submarine was not seen. The convoy maneuvered to bring the wake astern and later resumed course.

26. At 1.30 p. m., June 26, latitude $47^{\circ} 10' N.$, longitude $6^{\circ} W.$, the periscope of a submarine was sighted by the *Cummings*. *Cummings* dropped a depth charge over submarine. This attack is covered by a separate report.

27. At 4.40 p. m., June 26, the French destroyers *Gabion* and *Gleive* joined Group II, and brought instructions for the convoy to pass to the southward of Belle Isle. Preceded by the French destroyers, Group II proceeded to St. Nazaire and anchored at 5.50 a. m., June 26, 1917.

28. The weather throughout passage of Group II was pleasant and mild, with the exception of two days of fog at the start. All vessels of the escort and convoy held target practice en route, firing at periscope target. Group II, during passage, took the following route:

Ambrose Channel Lightship to latitude $39^{\circ} 35' N.$, longitude $69^{\circ} 40' W.$; thence to latitude $39^{\circ} 35' N.$, longitude $46^{\circ} 15' W.$; thence to latitude $45^{\circ} 20' N.$, longitude $38^{\circ} 10' W.$; thence to latitude $48^{\circ} 10' N.$, longitude $26^{\circ} W.$; thence to St. Nazaire, France.

29. Group III.—Composition:

Escort: *Charleston*, *Cyclops*, *Allen*, *McCall*, *Preston*.

Convoy: *Mallory*, *Finland*, *San Jacinto*.

30. Group III took departure from Ambrose Channel Lightship at 3.35 p. m., June 14, 1917. At 9 a. m., June 15, at signal "Man overboard" from the *Preston*, group counter-marched in order to repass spot where men fell overboard. *Preston* and *Cyclops* lowered boats and men were recovered.

31. At 8 a. m., June 18, *Preston* was detached and directed to proceed to a United States port. *Allen* and *McCall* refueled from the *Maumee* in the forenoon of June 22 at the prescribed rendezvous. At daylight June 25, Group III was joined by the destroyers *Porter*, *Sampson*, *McDougal*, *Davis*, *Wainwright*, and *Jarvis*, at assigned rendezvous.

32. At 6.50 a. m., June 26, *McCall* was detached and directed to proceed to St. Jones, Newfoundland, to refuel and thence return to the United States. At 8.50 a. m., June 27, Group III was joined by two French torpedo boats. At the request of the commanding officer of one of the torpedo boats, course was set to pass to the southward of Belle Isle. With French destroyers in the lead, Group III proceeded from Belle Isle to St. Nazaire, anchoring at 10.30 a. m., June 28, 1917.

33. The weather throughout passage was pleasant and mild, with the exception of fog for two days at the beginning of the trip. All vessels of the convoy and escort held target practice with periscope target en route. Group III zigzagged continuously during daylight throughout passage. The route of Group III was as follows:

Ambrose Channel Lightship to latitude 59° 35' N., longitude 69° 40' W.; thence to latitude 59° 35' N., longitude 46° 15' W.; thence to latitude 43° 20' N., longitude 38° 10' W.; thence to latitude 46° 45' N., longitude 23° 55' W.; thence to St. Nazaire, France.

34. Group III use the following formation: Daylight—Transports in line; *Charleston* 1,000 yards in advance of center of line, *Cyclops* 1,000 yards in rear of center of line; destroyers ahead and on flanks. Night formation—Transports in column: *Charleston* leading, destroyers ahead and on both flanks.

35. Group IV.—Composition:

Escort: *St. Louis*, *Hancock*, *Shaw*, *Parker*, *Ammen*, *Flusser*.

Convoy: *Montanan*, *Dakotan*, *El Occidente*, *Edward Luckenbach*.

36. Group IV took departure from Ambrose Channel Lightship at 9 a. m., June 17, 1917. At 10.30 p. m., June 22, *Flusser* was detached and directed to return to the United States. The *Terry*, having effected repairs, accompanied Group IV instead of Group I. The *Terry* was detached from Group IV at 5 p. m., June 25, and proceeded to St. Johns, Newfoundland. On June 26, the *Shaw* oiled from the *Maumee*. No other destroyers oiled from the *Maumee* as the *Kanawha* had previously oiled the *Parker*, *Ammen*, and *Terry*. This was necessary as some of the *Kanawha's* cargo oil was contained in leaky tanks. Leakage from the *Kanawha's* cargo tanks left an oil streak astern of the convoy during the entire passage.

37. At 10 a. m., June 26, latitude 47° 36' N., longitude 22° 22' W., Group IV was attacked by submarines. The commanding officer of the *Hancock*, the commander of Group IV, considered at the time that the alarm was false, and that no submarines had been sighted. Later detailed reports from the vessels of the group showed clearly that submarines had been sighted and fired upon the *St. Louis* and *Kanawha*. This attack is covered by separate report.

38. Group proceeded from *Maumee's* position to rendezvous with destroyers from England. At 3 p. m., June 28, at this rendezvous, the *Patterson*, *Warrington*, *Trippe*, *Paulding*, *Brayton*, and *Walke* joined the group. At 12.05 p. m., June 30, Group IV was joined by vessels in the lead, group passed to the southward of Belle Isle and at 6.42 p. m., July 1, anchored in Quiberon Bay. At 1 a. m., July 2, all vessels of Group IV got underway and proceeded to St. Nazaire.

39. Weather throughout passage of Group IV was pleasant and mild. All vessels of escort and convoy held target practice en route using periscope target. Route of convoy was as follows:

From Ambrose Channel Lightship to latitude 39° 35' N., longitude 69° 40' W.; thence to latitude 39° 35' N., longitude 46° 15' W.; thence to latitude 43° 20' N., longitude 38° 10' W.; thence to latitude 47° 40' N., longitude 23° W.; thence to St. Nazaire, France.

(F) PORT OF SAINT NAZAIRE, FRANCE.

40. St. Nazaire, the seaport of Nantes, at the mouth of the Loire River, which had been selected as the port of disembarkation, was taxed to the utmost to accommodate the numerous vessels of the escort and convoy which transported the first United States expeditionary force. The harbor proper is small and the channel of such depth that vessels of deep draft can enter only at high water. A 5-knot tide renders movements of vessels within the harbor impossible except at slack water. An inner

basin, entered by a lock, provides excellent berthing space for approximately a dozen vessels of 12,000 to 15,000 tons. This basin is maintained at a depth of 30 feet by pumping and can be entered only at high water.

41. The anchorage outside of the basin for large ships are few, and by no means safe. The holding ground is bad, especially at Spring tides. It was necessary for the ships of the escort, including the collier and tankers, to anchor in the harbor. The *Seattle*, *DeKalb*, and *St. Louis*, at various times, dragged anchor and serious damage was narrowly averted.

(G) ARRIVAL AT ST. NAZAIRE.

42. Pilots were furnished to the ships of each group for entering St. Nazaire. The arrival of each group was timed for high water, and the transports were immediately berthed inside the basin. Anchorages in the harbor were assigned to the cruisers and fuel ships by the captain of the port. Ships were anchored under the direction of the pilots. Berthing of transports inside the basin was conducted with dispatch and skill.

(H) DISEMBARKATION AND DELAYS INCIDENT THERETO.

43. A camp for the troops of the first expeditionary force was in course of preparation about 3 miles from the town of St. Nazaire. This camp was practically ready for occupancy by the time of arrival of the first group. As soon as each transport was docked, the unloading of the personal impedimenta of the troops began and on the day following, the troops marched ashore from each transport. All transports carried cargo and stores in addition to troops. Five hundred negro stevedores had been brought from the United States by the Army Quartermaster Department to unload the cargo of the transports. The arrival of 10 transports within three days rendered it impossible for this number of men to expeditiously carry on the unloading. An attempt was made to procure the services of local stevedores. Only a small number were procured, however, and the assistance which these rendered was practically nil. Effort was made to work the stevedores overtime, but this resulted only in longer hours without increasing satisfactorily the amount of work.

44. The four first group transports were unloaded in a reasonably short time and the stores landed on the docks. Insufficient transport service by means of trucks and wagons very quickly congested the docks, which made the unloading of the second, third, and fourth groups of transports increasingly difficult.

45. The marine regiment, transported in the *Henderson*, *DeKalb*, and *Hancock*, used their own men in unloading and transporting stores. No difficulty was experienced with these vessels. The work proceeded most expeditiously and the vessels were unloaded in minimum time.

46. In addition to cargo and stores, each transport with one or two exceptions carried sufficient cargo coal to replenish bunkers for the return trip. The shifting of this cargo coal to bunkers presented a serious problem. The ships' crews that had been shipped under the seaman's act, and were not in the Army Transport Service, refused to work at this duty until finally paid an exorbitant rate by the Army Quartermaster. Sufficient stevedores to accomplish the shifting could not be taken from the work of unloading cargo. Finally it was necessary in several cases to turn to the navy gun crews.

Delays in unloading may be summarized:

- (a) Lack of sufficient men to unload cargo from ships.
- (b) Lack of transportation relieving congestion of cargo on docks.
- (c) Lack of facilities for shifting coal from the cargo holds to bunkers.

(I) DEPARTURE OF RETURN GROUPS.

47. As quickly as transports were unloaded, refueled, and replenished with water, they were assigned to groups for the return passage through the active submarine danger zone.

48. In accordance with the department's instructions, the destroyers which accompanied the groups from the United States were to be retained to safeguard transports through this danger zone. Further, destroyers as needed were retained from the divisions which had come out from England.

49. Each group, for return passage to the United States, was directed to proceed as a group, protected by destroyers for a distance of 600 miles from St. Nazaire, then to dismiss destroyers, disperse group, and proceed singly to the United States.

50. The following vessels, *Saratoga*, *Havana*, and *Lenape*, were made ready to sail on July 2, and were dispatched under escort of the cruiser *Birmingham* and the destroyers *Sampson*, *Jarvis*, and *Allen*, at 10 a. m., July 2, 1917.

51. On July 3, 1917, a telephone message from Vice Admiral Sims, transmitted via the United States naval attaché at Paris and the commandant de le marine at St. Nazaire, directed that all destroyers be dispatched immediately to England. This order was complied with and the departure of the second group was, in consequence, delayed until sufficient protection for the group through the danger zone could be procured. The French Navy Department was requested to furnish as many destroyers as possible, and the force commander requested the Navy Department by cable to direct that sufficient destroyers be returned from England to furnish adequate protection.

52. On July 5, the following vessels, which were ready to sail, were organized into Group II: *Pastores*, *Tenadores*, *Mallory*, *DeKalb*, and *Henderson*. Under escort of three French patrol vessels, this group sailed at 3 p. m., July 5.

53. On July 8, the *Porter*, *Ericsson*, *O'Brien*, *Nicholson*, and *Cassin* arrived at St. Nazaire and reported for escort duty. The following transports were ready to sail: *Hancock*, *Finland*, *San Jacinto*, and *Antilles*. At 6 a. m., July 9, this group, under escort of the cruisers *Charleston* and *St. Louis* and the above-named destroyers, sailed for the United States.

54. The unloading of the remaining transports and the repairs to the *Momus* were completed on the night of July 13 and the morning of July 14. The five destroyers which had sailed with the third group returned to St. Nazaire the morning of July 12. At noon, July 14, the transports *El Occidente*, *Edward Luckenbach*, *Dakota*, *Momus*, and *Montana*, and the fuel ships *Cyclops* and *Kanawha*, sailed under the escort of the *Seattle*, *Porter*, *Nicholson*, *Ericsson*, *Cassin*, and *O'Brien* and four small French destroyers. The departure of this group was immediately preceded by two mine sweepers, four airplanes, and one dirigible, thus providing every possible protection.

55. The other groups had been directed by the force commander not to cross the tenth meridian north of latitude $47^{\circ} 30'$. From daily reports of operations of submarines on west French coast, it was noted that the submarines which had been operating to the westward of the Isle d'Yeu in about latitude 46° were shifting to the northward to about $47^{\circ} 30'$. The last group, therefore, crossed the tenth meridian at $46^{\circ} 10'$, and thence steered west to longitude $17^{\circ} 20'$, whence the United States destroyers with *Kanawha* returned to Queenstown. The French destroyers were released at the tenth meridian.

(J) FUEL.

56. At New York prior to the departure, arrangements for fueling were made so that all vessels of both escort and convoy sailed with the maximum amount of fuel that it was possible to carry.

57. The *Maumee*, accompanied by the *Henley*, had been stationed by the force commander in latitude $42^{\circ} 10' N.$, longitude $40^{\circ} 35' W.$, for the purpose of refueling the destroyers accompanying the convoy. This was successfully accomplished. She refueled the destroyers *Fanning*, *Wilkes*, *Burrows*, *Allen*, and *Shaw*. During the voyage the *Kanawha* fueled the destroyers *Parker*, *Ammen*, and *Terry*. This refueling of destroyers at sea is covered by a separate report.

58. On arrival at St. Nazaire the convoy commander was informed by the United States naval attaché that he had borrowed from the French Government 6,000 tons of coal for the use of the convoy and that this coal was at Brest and that it would be necessary for vessels to proceed to Brest to coal.

59. It was found that all of the transports, with the exception of the *Havana*, *Saratoga*, *Antilles*, and *Momus*, carried sufficient coal for the return passage. The *Cyclops* cargo was sufficient to coal these four transports and all of the naval vessels, with a balance of approximately 700 tons remaining. This balance was landed on the lock at St. Nazaire and invoiced to the United States Army base commander for the use of the Army or any United States naval vessel which might enter the ports. The coal at Brest was not used.

60. Destroyers were oiled as necessary from the *Cyclops* and *Kanawha*. The *Cyclops* issued approximately 275,000 gallons. The *Kanawha* issued approximately 9,000,000 gallons.

(K) COMMUNICATION.

61. Before sailing a list of radio calls were prepared giving each transport and man-of-war a three-letter call from the Berne list. Radio communication was prohibited, except in cases of emergency, and then these three-letter calls were to be used. In case of communication between senior officers of groups, calls were to be authenticated by use of radio signal calls as given in the D. N. C. publications. An ordinary quintuple cipher was assigned for the use of all ships.

62. Radio was used between senior ships and our own destroyers in arranging rendezvous.

63. United States shore stations' spark signals were received at a distance of 900 miles by day and 1,200 or more by night, depending on atmospheric conditions. With the amplifier, Radio, Va., arc signals were received at all times, except when prevented by interference or when low power was used. For example, received 43 A1Nav while in St. Nazaire and 44 A1Nav one day out on return trip. Time signal and press from Radio, Va., on spark, were received as far east as the twenty-fifth meridian.

64. In European waters all work from ship to shore and vice versa is done on 600 meters, causing a great deal of interference. This wave length is probably used because all ships have 600 meter wave and use it for S. O. S. or information broadcasting. The designation for information of submarine activity obtained from reports of ships and by cross bearing of direction finders is the word "allo," preceding a message. It is not to be depended on absolutely.

65. While at St. Nazaire all messages for further transmission were sent to the French naval commandant in French. Here the messages were put into French secret code and transmitted to the United States naval attaché, who recoded the message and forwarded it to final destination.

66. Communication from Radio, Va., by broadcasting is not reliable, due to interference on 6,000 meters. A great many spark stations use this wave length almost continuously.

67. While in European waters it was found that a great many codes were in common use, both by the French and English, of which we have no knowledge. Further, many systems of call letters were used which did not agree with the call letters furnished to the *Seattle*.

(L) TARGET PRACTICE.

68. All vessels of convoy and escort, except the *Corsair*, held target practice during passage, firing at imitation periscope target. The majority of guns' crews of both the transports and the naval vessels were recruits of only a few months' service who had not previously fired a gun.

69. Performances on the whole were most satisfactory.

70. The form of target practice used was devised to fulfill the following:

- (a) To take place at sea during passage to France.
- (b) Not to interfere with course, speed, or coal and fresh water economy of convoy.
- (c) To accustom newly enlisted men to gunfire.
- (d) To give the spotters, guns' crews, lookouts, and observers a target similar in appearance and characteristics to a submarine showing only its periscope.

71. The practice as carried out accomplished the above results, and demonstrated:

- (a) That a well directed and rapid fire will probably prevent a submerged submarine obtaining the data necessary to accurately fire its torpedoes.
- (b) That fire should be opened instantly upon sighting submarines regardless of range and deflection.
- (c) That sights should be kept set so that the first shot will fall short in range.
- (d) That spotting against a moving periscope will probably be erratic.

(M) PERSONNEL ATTACHED TO TRANSPORTS.

72. *Naval personnel*.—The three naval officers attached to each transport were of invaluable service in expediting the work of the transports in port in addition to their more legitimate duties in direct charge of the safety of the transport at sea.

73. The naval enlisted personnel attached to transports was on the whole, satisfactory and the spirit shown by the men was commendable. Most of the members of the guns' crews are recruits of only a few months service. Their lack of training and experience was a handicap, but it is expected that this handicap will be rapidly overcome in the duty which they are now performing. The lack of responsible trained petty officers among the gun crews is a serious matter. It is a necessity that dependable petty officers form a part of the transports' gun crews.

74. The merchant officers of the transports were, on the whole, a highly efficient and capable body of men. Of the crews, little good can be said. These men are mostly the sweeping of the docks, taken on board just prior to sailing. They were shipped as regular merchant crews, and were not enlisted in the Army Transport Service. Men of all nationalities were shipped, and it is extremely probable that many spies were among the number. In one case a member of the crew of the *Momus*, of German extraction, openly threatened the safety of the ship. The crews of these transports at all times formed a serious menace to the safety of the convoy.

75. In connection with the arrival of the transports and the debarkation of men and unloading of material, the services of Capt. Asher C. Baker, United States Navy,

retired, were of inestimable value to the convoy commander. His perfect knowledge of the French language, his familiarity with French customs, and his intimate and personal acquaintance with French officials were a major factor in getting the ships ready for the return voyage. All of his work was marked by cheerfulness and tact and his zeal and energy were indefatigable.

76. It is not only a pleasure but a duty to state that the Secretary of the Navy's cable of July 4 expressing the department's satisfaction with the operations of the convoy was only made possible by the hearty cooperation, interest, and efficiency of all the officers and men who composed the expeditionary force and escort.

77. In conclusion, the force commander wishes to state that the utmost cooperation and support was received from the Army, and that the two services worked together in unison and each with appreciation and consideration of the duties and responsibilities of the other. A copy of a letter from Maj. Gen. Sibert is appended to this report.

ALBERT GLEAVES.

HEADQUARTERS FIRST EXPEDITIONARY DIVISION.

France, July 2, 1917.

COMMANDING OFFICER UNITED STATES NAVAL CONVOY,
First Expeditionary Force.

MY DEAR ADMIRAL GLEAVES: The safe arrival, this date, of the fourth and last division of the first convoy prompts me to convey to you my sincere congratulations upon the successful completion of the difficult task with which you were charged.

In as far as I can speak from personal observation and from hearsay, I desire also to express my appreciation of the highly courteous treatment which the Army invariably received at the hands of your subordinates in the Navy charged with duty on board of the transports.

I am,

Very sincerely, yours,

WM. L. SIBERT.

Major General, United States Army.

DESTROYER FORCE, ATLANTIC FLEET,
U. S. S. "SEATTLE," FLAGSHIP,
St. Nazaire, France, July 12, 1917.

From: Commander destroyer force.

To: Commander in chief, Atlantic Fleet.

Subject: Attacks on convoy by submarines on the nights of June 22, June 26, and June 28, 1917.

1. About 10.15 p. m., June 22, the first group of the expeditionary force, of which the *Seattle* was the leader, encountered enemy's submarines in latitude 48° N., longitude 25° 5' W.

2. At the time it was extremely dark, the sea unusually phosphorescent; a fresh breeze was blowing from the northwest which broke the sea into whitecaps. The condition was ideal for a submarine attack.

3. The transports were in double column of 1,200 yards interval, 600 yards distance; *Tenadores* and *Havana* in the right column, the former leading; the *Saratoga* and *Pastores* in the left column, the *Saratoga* leading; *Seattle* 1,000 yards, two points on starboard bow of *Tenadores*, and *De Kalb* 1,000 yards on port bow of *Tenadores*; *Fanning* 2,000 yards, four points on the port bow of the *Saratoga*; speed, 12 knots; convoy zigzagging.

4. Shortly before the attack the helm of the *Seattle* had jammed and the ship took a rank sheer to starboard; the whistle was blown to indicate this sheer. In a few minutes the ship was brought back to the course. At this time the officer of the deck and others on the bridge saw a white streak about 50 yards ahead of the ship, crossing from starboard to port at right angles to our course. The ship was immediately run off 90° to starboard at full speed. I was asleep in the charthouse at the time. I heard the officer of the deck say, "Report to the admiral a torpedo has just crossed our bow." General alarm was sounded, torpedo crews being already at their guns. When I reached the bridge the *De Kalb* and one of the transports astern had opened fire, the former's shell fitted with tracers. Other vessels of the convoy turned to the right and left, in accordance with instructions. *Wilkes* crossed our bow at full speed and turned toward the left column in the direction of the firing.

5. At first it was thought on board the *Seattle* that the wake was that of a torpedo, but from subsequent reports from other ships, and in the opinion of Lieut. Roberts,

who was on the bridge, it was probably the wake of the submarine boat itself. Two torpedoes passed close to the *De Kalb* from port to starboard, one about 30 yards ahead of the ship and the other under her stern, as the ship was turning to the northward. Capt. Gherardi reports the incident thus:

"Steaming in formation on zigzag course, with base course 75° p. s. c., standard speed, 12 knots (64 rev.). At 10.25 sighted wake of a torpedo directly across our bow about 30 yards ahead of the ship. Changed course 90° to left and went to torpedo defense stations. Fired two 1-pounder shots and one 5-inch shot from port battery as alarm, in addition to six blasts from siren. Passed through two wakes; one being that from U. S. S. *Fanning* in turning to northward, the other believed to have been from the passing submarine. A second torpedo wake was reported at about 10.35 from after lookouts. After steaming in various courses at full speed, resumed course 89° p. s. c., at 11.10 for rendezvous, zigzagging as per plan No. 2. At 12 set course 56° p. s. c. and speed at 15 knots (80 rev.), zigzagging as per plan No. 1."

6. The torpedoes fired at the *Havana* passed from starboard to port about 40 yards ahead of the ship, leaving a distinct wake which was visible for four or five hundred yards. Col. McAlexander, United States Army, was on the starboard wing of the bridge of the *Havana* at the time and states: "I first saw a white streak in the water just off the starboard bow, which moved rapidly across the bow very close aboard. When I first saw it it looked like one very wide wake and similar to the wake of the ship, but after crossing the bow and when in line with it there appeared two distinct and separate wakes with a streak of blue water between. In my opinion, they were the wakes of two torpedoes."

7. The submarine which was sighted by the *Seattle* was seen by the *Wilkes* and passed under that ship. The *Wilkes* went to quarters. When the alarm was sounded in the *Wilkes*, Lieut. Van Metre was roused out of his sleep and went to his station at the occillator, and found that it gave unmistakable evidence of the presence of a submarine. He had been there only a few seconds when the radio operator took the receiver and reports, "Submarine very close to us." As the submarine passed the *Wilkes* and the *Seattle's* bow and disappeared close aboard on our port bow, between the columns it was followed by the *Wilkes*, which ran down between the columns, and when the latter resumed her station she reported that there were strong indications of the presence of two submarines astern, which were growing fainter. The *Wilkes* was then sent to guard the rear of the convoy.

8. When I was in Paris I was shown by the United States naval attaché a confidential official bulletin of information issued by the General Staff, dated July 6, which contained the following:

"Punta Delagada, Azores, was bombarded at 9 a. m., July 4. This is undoubtedly the submarine which attacked the *Fern Leaf* on June 25, 400 miles north of the Azores and sank the *Benguela* and *Syria* on the 29th of June 100 miles from Terceira (Azores). This submarine was ordered to watch in the vicinity of the Azores, at such a distance as it was supposed the enemy American convoy would pass from the Azores."

9. It appears from the French report just quoted above, and from the location of the attack that enemy submarines had been notified of our approach and were probably scouting across our route. It is possible that they may have trailed us all day on June 22, as our speed was well within their limits of surface speed, and they could have easily trailed our smoke under the weather conditions without being seen; their failure to score hits was probably due to the attack being precipitated by the fortuitous circumstances of the *Seattle's* helm jamming and the sounding of her whistle, leading enemy to suppose he had been discovered.

10. The *Birmingham*, leading the second group, encountered two submarines, the first about 11.50 a. m., June 26, 1917, in latitude 47° 01' N., longitude 06° 28' W., about a hundred miles off the coast of France, and the second two hours later. The *Wadsworth* investigated the wake of the first without further discovery. The *Cummings* sighted the bow wave of the second at a distance of 1,500 yards and headed for it at a speed of 25 knots. The gun pointers at the forward gun saw the periscope several times for several seconds, but it disappeared each time before they could get on, due to the zigzagging of the ship. The *Cummings* passed about 25 yards ahead of a mass of bubbles which were coming up from the wake and let go a depth charge just ahead. Several pieces of timber, quantities of oil, bubbles and debris came to the surface. Nothing more was seen of the submarine. The attacks on the second group occurred about 800 miles to the eastward of where the attacks had been made on the first group.

11. The voyage of the third group was uneventful.

12. In the forenoon of June 28, when in latitude 47° 38' N., longitude 22° 22' W., the *Kanawha* opened fire on an object about 300 yards distant which he thought was a submarine. The commander of the group, however, did not concur in this opinion, but the reports subsequently received from the commanding officer of the *Kanawha*

and Lieut. Carey are too circumstantial to permit the incident from being ignored. The commanding officer states:

"(b) The only unusual incident of the trip worth mentioning was on the 28th day of June, about 10.05 a. m. the lookouts reported something right ahead of the *Kanawha*. (I had the bridge at the time.) When I looked, I saw what appeared to be a very small object on the water's surface, about a foot or two high which left a small wake; on looking closer and with the aid of binoculars, I could make out a shape under the water about 250 to 300 yards ahead, and which was too large to be a blackfish, lying in a position about 15° diagonally across the *Kanawha's* course.

"(b-1) I ordered the port bow gun to open fire on the spot in the water and sounded warning siren for convoy; when judging that ship had arrived above the spot first seen, I ordered right rudder in order to leave the submarine astern.

"(b-2) A minute or two later, the port after gun's crews reported sighting a submarine on port quarter, and opened fire at the same time. The lookouts from the top also reported seeing the submarine under the water's surface and about where the shots were landing.

"(b-3) The ship kept zigzagging and firing from after guns every time something was sighted.

"(b-4) Lieut. (Junior Grade) Lee C. Carey, United States Navy, was in personal charge of the firing and reports that he saw with all the gun crews and lookouts aft, the submarine fire two torpedoes toward the direction of the convoy, which sheered off from base course to right 90° when alarm was sounded.

"(b-5) All the officers and men aft had observed the torpedoes traveling through the water and cheered loudly when they saw a torpedo miss a transport. They are not certain though which one it was, as the ships were not in line then and more or less scattered.

"(b-6) The gunnery officer and all the men who were aft at the firing are certain that they saw the submarine and the torpedoes fired by same.

"(b-7) A separate report of Lieut. (Junior Grade) Lee C. Carey, United States Navy, the gunnery officer, is herewith appended.

"(b-8) The *Kanawha* kept zigzagging until it was considered that danger was past, and in due time joined the escorts and convoy formed column astern.

"(b-9) Report by signal was made to group commander of sighting submarines and torpedoes."

13. From this experience of the convoy it appears that the transportation of troops can best be accomplished by vessels of high speed and a sufficient fuel endurance, proceeding singly, accompanied by not less than two destroyers for protection during daylight and for the purpose of saving life throughout the entire voyage.

14. Copies of reports of commanding officers *Seattle*, *De Kalb*, *Havana*, and *Birmingham* are inclosed; also copy of report of Lieut. (Junior Grade) L. C. Carey, of the *Kanawha*.

ALBERT GLEAVES

EX-GERMAN LINERS CONVERTED INTO TRANSPORTS.

The greatest increase in America's troop-carrying facilities was furnished by the big German liners interned in our ports, which were converted into troop ships and carried half a million troops to Europe. It was not until three months after war was declared that these vessels were placed under control of the Navy. Their machinery had been so badly damaged that the German crews believed they could not be repaired, and, even if this could be done, it would be from a year to 18 months before they could be put into service. But the Navy was confident it could be done in far less time, and, when they were put under our control in July by Executive order, set about the work at once. The first the *Aeolus* (formerly the *Grosser Kurfurst*), was placed in commission August 7; and within six months all those big liners had been repaired, converted into troop ships, and were carrying troops to Europe. This resulted in a saving of 12 months in time and effected an economy estimated at more than \$20,000,000.

Secretary DANIELS. I wish to say here, Mr. Chairman, that of all of the accomplishments of the Navy in the war, in a material way, the

skill, the expedition with which these German ships were converted into troop carriers by the Navy Department stands among the very first. One of the German engineers on one of these ships, when he thought he had ruined it, said, "It will take two years to ever get this ship running, and I will take off my hat to anybody who can do it." Well, he has been bareheaded ever since, because the Navy did it within a few months.

These ships were invaluable to us. They increased many times the troop-carrying capacity of our transport force, and actually transported half a million troops before the armistice.

TOOK EVERY MEASURE TO INSURE PROTECTION AND EFFICIENT USE OF
THESE SHIPS.

We took every measure possible to secure the most efficient use of these ships and to insure the utmost protection that could be afforded. As soon as we were assured they would be transferred to the Navy the following dispatch was sent to Admiral Sims:

JULY 1, 1917.

To: Admiral Sims.

One of the most important cross-water operations in which our naval forces will be involved concerns the safe transportation of American troops to French soil.

All the time, you will observe, in every cablegram insisting upon the safe transportation of American troops. That was the first, the biggest, the most important task of the American Navy, and we performed it well. The telegram goes on to say:

Every guaranty has been given the War Department that the Navy Department would do its utmost to safeguard the lives of the troops in transit.

Fourteen of the best, largest, and fastest interned German ships under complete naval control will be commissioned in the Navy and used to transport troops. It is imperative that these ships should receive the utmost destroyer protection possible on the passage in and it is desirable, on account of the valuable character of the ships and the difficulty of adequately replacing them if lost, to guard them on the passage out. After consultation with the various authorities, especially the French, submit an outline of what in your opinion is the best method of conducting such operations. Each ship will hold over 4,000 troops.

Should such ships sail singly or in company? How much protection can they expect from our destroyers and how much from the French on the voyage out, or do you contemplate giving that protection without our own forces? Should we, in addition to giving all the advanced information possible, ask of you a rendezvous for each ship or group sailing and a course in from there, or will you appoint in advance a rendezvous and course which rendezvous and course will hold good until changed by you?

Regarding supply ships of the Army of which there will be many of moderate speeds, should it be the policy of them to sail singly or together in groups, in order that they may receive the greatest protection during that portion of the journey where it is most needed?

These are the points which, even if before discussed by you, we desire to have clearly indicated in order that the greatest cooperation and efficiency may result from our combined efforts.

OPNAV.

In view of the fact that this dispatch merely directed Admiral Sims to consult with the various authorities and report as to the best method of operating and protecting these ships, it is difficult to understand his expression of resentment and denunciation. He said to you:

I do not think it would be possible for me to convey to you the discouragement of receiving at that date, after the miles of cables and letters I had sent in there on the 9th of July exhibiting the crassest ignorance of the elements of the whole problem.

In view of the extensive communications which I had sent to the department concerning these convoys, previous to this dispatch, I think it requires no explanation on my part to convince the committee of my feelings upon receiving such a message as this. Here was question after question asking about handling convoys which I had explained over and over again.

Gentlemen, I think it will require no explanation to convince the committee, which has heard several miles of the "miles of letters and cables" Sims sent, that what we wanted was not another mile or two of talk, but specific answers to plain questions. What enraged Sims was evidently that last sentence:

These are the points which, even if before discussed by you, we desire to have clearly indicated in order that the greatest cooperation and efficiency may result from our combined efforts.

We wanted to work out for the operation of these vessels a well-defined plan which neither Sims nor anyone else could misinterpret or misunderstand—a plan based on the best experience and advice of the allied authorities. We were taking no chances on picking out from the "miles" of Sims's dispatches recommendation that might, or might not, apply. He was our representative in Europe, it was his special business to furnish us information and answer questions of this character, and there wasn't any need of his wanting to "jump overboard" whenever he received a dispatch that requested specific answers on subjects he had before treated in a general way.

Commenting particularly on the question, "Do you think that they should sail in company or singly?" Admiral Sims said:

I would not have believed that that question could be asked at that stage of the game, how we should put the convoy in, and when we had put it in.

As a matter of fact, though we had put the convoy system into effect with the first troop expedition and continued it all through the war; the Allies, as well as ourselves, found it preferable, in some cases, to sail singly ships of high speed. The *Leviathan* made trips across the Atlantic successfully, sailing alone, her high speed being a better protection, in many respects, than escorts in convoy with slow ships.

SIMS OPPOSED USE OF THE "LEVIATHAN" AS A TROOP SHIP.

The greatest of all transports used during the war—the largest ship afloat—was the *Leviathan*, formerly the German *Vaterland*. She carried nearly 100,000 troops to France, as many as an entire fleet of little transports. Yet Sims strongly opposed the use of the *Leviathan* as a troop ship, and his insistence on sending her to Liverpool instead of Brest resulted in a loss of considerable time in her operation.

When the *Leviathan* was nearly ready for operation, Sims advised against its use as a troopship, sending the following cablegram:

From: Sims.

To: Opnav.

Brest, France, roads is only French har- or that can take deep-draft transports. I have previously pointed out difficulty handling freight in open roadstead with few available lighters. Freight might be transhipped in small vessels, but long delay would follow, and it is considered much better to ship all freight direct from United States in suitable vessels destined to usual ports.

The names of transports are not given, but I assume they are coaled for round trip. The consensus of opinion—

Telegraphing from London, now—

is against using U. S. S. *Leviathan* as troop transport. Her greater length makes her better target than smaller vessel. Other vessels listed as transports not larger than *Baltic* and *Adriatic*, both of which are carrying our troops.

For large high-speed vessels that require coal on this side, like U. S. S. *George Washington*, U. S. S. *America*, U. S. S. *Mount Vernon*, U. S. S. *Agamemnon*, I should be informed when they are ready and I shall endeavor to get Admiralty to make concessions and receive them Liverpool. Vessels of this type should cross in separate high-speed convoys and carry no freight for France. 04524.

In his troop transport letter of November 2, 1917, addressed to me, Admiral Sims wrote:

I consider Liverpool the safest port of entry in the submarine area. For the present, however, I think we shall have to send our large ships to Brest Roads, and then, when they are unloaded, escort them into England to be coaled.

I have previously reported against using the *Vaterland* for the present until we have a little more experience in handling the other large transports. The *Vaterland* is, of course, a much larger target, and injury to her would be a serious affair. I am assuming too that all of the troops that we have to transport for the next few months can be accommodated in other transports, assisted by British liners. Whenever the situation becomes pressing, I presume we shall have to use the *Vaterland* and take the additional risk.

This also shows that Sims was of the opinion that all the troops ready to be sent to Europe at that time and "for the next few months" could be carried in the transports we then had, without using the *Leviathan*. This is in striking contrast with the argument he puts forth to support his charge that the Navy delayed troop transportation, and that, if it had not been for losses of shipping, we could have had a million troops in France by March 1, 1918.

We did, at first, adopt Sims's advice to send the *Leviathan* to Liverpool instead of Brest; and thereby lost weeks of the services of that great vessel. The *Leviathan* was of such deep draft that, on one occasion, she had to wait an entire lunar month at Liverpool before she could get out of that harbor. When she was sent direct to Brest, as the Navy Department directed, and would have done the first time except for Admiral Sims's advice, which was mistakenly accepted, her turn around was measured in hours instead of weeks; and she broke all records in the number of troops transported. That was one instance in which we did follow Sims's advice, events soon proved how mistaken it was, and we had to carry out our original intention of sending the *Leviathan* to Brest.

SAID "PUBLIC MIND SHOULD BE PREPARED FOR POSSIBLE LOSS OF A TRANSPORT."

After Sims had informed us that submarines were operating far out in the Atlantic, and that one was on its way to America, we thought it wise to escort troop ships further out to sea, and on May 13, 1918, the following dispatch was sent to Admiral Sims:

6002. Due to known presence of enemy submarine so far out and state of public mind in regard to troop convoys, department desires you put extra emphasis—

Always putting extra emphasis—

upon the duty of escorting troop convoys both in number of destroyers and distance to which they operate. If necessary in order to insure safe landing of troops, fewer destroyers shall be assigned to the protection of ships carrying merchandise. 15016002.

We did not say "may." We found we had to say "shall," because he was putting the emphasis all the time on merchandise, and we were putting it on men—lives.

Admiral Sims's reply, dated May 16, 1918, and addressed to the Chief of Naval Operations, was as follows:

MAY 16, 1918.

From: Admiral Sims.

To: Chief of Naval Operations.

7941. Your 6002. While I fully understand department desires to do everything possible to safeguard transit of troops across the Atlantic, I must point out that it is impossible to insure safe conduct landing of all troops, no matter how many destroyers are assigned to escort duty.

This was May 16, 1918; it was impossible to give them escort. The impossible was made possible. He was wrong. He goes on to say:

It is my earnest opinion that the public mind should be prepared for possible loss of a transport. As an initial step in this direction I would recommend that newspaper stories of the destruction of submarine by merchant vessels be suppressed if possible. Such stories frequently appear based upon statements of passengers and officers of steamer, and are almost without exception entirely incorrect and give the public a false impression as to the ease with which submarines may be destroyed.

As I have been always fully alive to the necessity of giving a maximum of protection to troop convoys, the escorting of store ship convoys has already been reduced to a limit below which I do not deem it advisable to go. Convoys are now met by destroyers as far to westward as submarines are known to be operating, if within the fuel endurance of the destroyers, so that nothing further can be done in this respect.

The department is, of course, fully alive to the fact that under present conditions the safety of vessels carrying merchandise to Europe is hardly less essential to the successful prosecution of the war than is safety of troop transports, and we might conceivably lose the war through making excessive demands upon our escort forces for the protection of troops. 09016. 7914.

Sims.

PRESIDENT LINCOLN SUNK TWO WEEKS LATER.

Two weeks after Admiral Sims sent this dispatch the westbound transport *President Lincoln* was sunk about 450 miles from Brest. She was unescorted at the time, the destroyer escort having left her 12 hours before she was torpedoed.

Only three American troop ships were sunk during the war—the *Antilles*, the *Covington*, and the *President Lincoln*.

Two others—the *Finland* and the *Mount Vernon*—were torpedoed, but were navigated back to port and repaired. All these were attacked while returning from France.

In his testimony before this committee in the medal awards hearing, Admiral Sims told you the reason these were sunk was that "they were not efficiently protected going back as they were coming"; that his proposition was, "as soon as two or three transports were empty to let them go out with an inferior escort and take a chance on the thing."

I may say in parenthesis, when he said "take a chance on the thing," that the transports coming back not only were ships which were valuable, but they had wounded men, men who had been gassed and shelled; and I never did believe in taking chances on human life.

The following is quoted from his testimony (pp. 293-294) in the medal awards hearing:

The CHAIRMAN. Admiral, in this connection can you tell me how many transports were lost during the course of the war?

Admiral SIMS. About five or six. All of those were lost coming back.

The CHAIRMAN. None of them with troops aboard?

Admiral SIMS. None of them with troops aboard, except men that were returning to the United States.

Now, the bulk of these men returning to the United States were men who were ill or wounded, who were coming to the United States for treatment, and to whom the United States owed, if possible, a higher duty even than to the men going over. [Continuing reading:]

The reason of that was that they were not as efficiently protected going back as they were coming. The orders we had were to make the turn around as rapidly as possible. The necessity was to get troops over, and the risk of the empty transport was justifiable to that extent. We could, of course, have given them the same protection going back as they got going over, provided you would be willing to wait—say there are 10 transports coming over with thirty or forty or fifty thousand troops—if you are willing to wait until they all could take their turn at the wharves, and discharge their cargoes, etc., and then send them back as a body. That would have involved very considerable delay; and there is this about it: Ten or twelve ships coming in, escorted by 10 or 12 destroyers, have a certain protection. If you cut the convoy in two, and give each 6 destroyers, they have got much less, because it is the flanks only that we protect. They do not dare attack the middle. If you still further subdivide them and subdivide the destroyers, it is still less.

That was our proposition—as soon as two or three transports were empty to let them go out with an inferior escort and take a chance on the thing.

He ought to have said, "Take a chance on the lives of wounded and sick men."

Coming in, there was almost no risk to the transports, because they were always escorted by at least three times as much protection in destroyers as we gave to merchant convoys, and sometimes ten times as much. Moreover, they were rapid, and they were zigzagging, and it was extremely dangerous for any submarine to attack them; so that the danger was not very great. Moreover, we put them through a band of water where we never put any of the merchant ships, a band about 150 miles wide. The general impression that you would get from reading the accounts in the press would be that there were so many submarines in the ocean that it was hard work to push a ship across the ocean, that the danger was very great, and that there were a great many submarines out. As a matter of fact, throughout the war the Germans were never able to maintain to the westward of Ireland and the westward of the British Channel more than an average of 8 or 9 submarines. I have known it to be as high as 15, and I have known it to be down to 2 or 3, but the average was about 8 or 9, on account of the voyage out and the voyage back and the time under repairs, the time for resting the crews, and ordinary accidents of navigation; so that there were only these 8 or 9. If they had put all of the submarines in this band of water, and we had kept the band in the same place, you can easily play a game with yourself and see that if you place the submarines at random, and draw lines representing the track of the convoys, the chances of any one of those 8 submarines even seeing a convoy are small.

Now, you must add to that the fact that if they had put and kept the 8 submarines there, and put none where the merchant ships were coming in, although they might have sunk some of our troop ships, and might have killed 15,000 or 20,000 troops, they would have thereby lost the war, because the war depended upon getting the supplies in.

I wish to say, Mr. Chairman, that the war depended upon getting the troops to France. Everything else was really of minor importance.

Twenty thousand troops lost there would not have been any more serious than 20,000 lost on the battle front. It sounds a little heartless to say so, but from the military point of view it would have been relatively of less importance. Moreover, as that band of water did not always stay in the same place—we moved it around—they would have spent perhaps a week before they found out that we had moved it, etc. So that it was not very difficult to protect transports going in, and we took risks coming out.

The Navy Department didn't want to "take a chance on the thing." We wanted returning transports better protected, and urged it time and again, and during the war Sims argued against such suggestions and told us, as in his dispatch of May 16, 1918, "Nothing further can be done in this respect"; yet in his hearing quoted above he told you that "we could, of course, have given them the same protection going back as they got going over, if they had been willing to wait."

DISCOUNTED EFFORTS TO PROTECT TROOP SHIPS AND SOLDIERS' LIVES
AS "LARGELY POLITICAL."

In view of the evidence presented, his testimony before this committee in the medal awards hearing, as well as the present inquiry, the sharp reminders and orders that had to be given him, this committee can not believe that "there was never any question" about Admiral Sims's recognition that the primary mission of the forces under his command was the protection of American troops.

Admiral Sims, in fact, seems to have regarded our insistence on the utmost protection of troopships and safeguarding the lives of American soldiers as "largely political." Though he never stated that to me, he seems to have expressed that opinion freely to British officers, as will be judged from the following letter of September 24, 1918, from Admiral Sims to Admiral Bayly, the British commander at Queenstown. Here is what Admiral Sims wrote to Admiral Bayly, the British admiral:

I think I mentioned that some of our quite valuable supply ships are going through the Mediterranean two at a time escorted by one destroyer and sometimes not escorted at all. We must also face the fact that the number of supply ships coming into the western ports of France are continually on the increase, and this makes it quite impossible to give adequate protection to the empty transports going westward. It is also a fact that our troop transports are not as strongly escorted as they probably should be. This is particularly true of the ones that pass in through the Channel and up the Thames.

Now, Mr. Chairman, this was an American admiral writing to a British admiral. He said:

There is no doubt at all that the principal dignitaries at home are very nervous lest some of our troop transports be torpedoed.

Mr. Chairman, we were very nervous. One hundred and eleven million American people were very nervous and they were very anxious, and they have very little patience with an American admiral who would write to a British admiral that the American people were nervous about the lives of the men who were to protect the liberties of the world. I repeat that:

There is no doubt at all that the principal dignitaries at home are very nervous lest some of our troop transports be torpedoed. Of course, you will understand that this nervousness is largely of a political kind.

An attack upon the American Government in a letter to a British admiral, that because we wanted to protect the lives of our 2,000,000 soldiers it was political. If I had seen that letter, gentlemen, I should have ordered him home by wire and put him under court-martial. [Continuing reading:]

It is therefore apparent that the first reinforcements will have to be devoted to the services above indicated.

That is, his orders were that he must take care of the protection of our troop transports rather than of vessels containing munitions and supplies. Then, he goes on to say again:

These necessities, as I have said, are largely political.

Personally, I can not persuade myself that the Germans have any intention of concentrating their submarine efforts against our troop transports. There was an explanation published in the German papers explaining to the German people why it was that they were not successful in stopping the arrival of troop transports. It seems to me that this explanation is perfectly sound from a military point of view. It pointed out that transports may arrive anywhere from the north of Scotland to the south of France; that it was exceedingly difficult to intercept them; that they were heavily escorted; and that a great effect could be produced upon the enemy by attacking merchant vessels bringing in supplies of all kinds. This is exactly my opinion. It seems to me that if I were a Hun and in complete command of the Hun submarine campaign, I would give the submarines orders not to attack loaded transports. This for the reason that the submarine runs a very considerably greater danger in attacking through the escort of a troop transport than through the escort of a much larger merchant convoy.

He is writing to a British admiral, now.

Moreover, the torpedoing of an occasional troop transport would not sensibly decrease the number of men flowing into Europe, while the torpedoing of a number of merchant vessels will eventually limit the number of troops that we can maintain in Europe. There is a commission over here now earnestly looking for more ships than our shipyards will be able to supply in the coming year. If they can not find these ships, the flow of troops will have to be decreased.

That letter needs no comment.

BELITTLE PART OF UNITED STATES NAVY IN TROOP TRANSPORTATION.

Admiral Sims constantly belittled the part played by the United States Navy in troop transportation. In his speech in London on October 11, 1918, at the luncheon given to American editors and newspaper correspondents, who he must have hoped and expected would give the widest publicity to his remarks, he said:

Americans seemed to regard it as a miracle of their Navy that they had got a million and a half troops here in a few months and had protected them on the way. We didn't do that. Great Britain did. She brought over two-thirds of them and escorted one-half.

That was in his speech to the editors of America.

We would not detract one iota from the credit due, and generously rendered, to our British friends for their splendid work in transporting American troops. Without their ships it would have been impossible to have gotten to Europe in the spring and summer of 1918 the 1,700,000 troops that were transported after the March drive. But at the same time we do not want to see the United States Navy deprived of just credit for the work it did in troop transportation.

AMERICAN VESSELS CARRIED NEARLY ONE-HALF; ESCORTED FOUR-FIFTHS OF TROOPS SENT TO EUROPE.

The statistics of the United States cruiser and transport force, as given in Appendix F, Annual Report of the Secretary of the Navy for 1919, state that of the 2,079,880 troops transported to Europe previous to the armistice 952,581 were carried in American vessels, 1,006,987 by British ships, 68,246 by British-leased Italian ships, 52,066 by other vessels, French, Italian, etc. Percentages carried: By British

ships, 48.25; by British-leased Italian ships, 3; by French, Italian, and other foreign ships, 2.5; by American vessels, 46.25 per cent. These tables state that the number of troops under United States escort was 1,720,360—82.75 per cent; under British escort, 297,903—14.125 per cent; under French escort, 61,617—3.125 per cent.

These figures show that American vessels carried nearly half the total number of troops transported (46.25 per cent) and escorted over four-fifths of them (82.75 per cent); yet Sims said the British carried two-thirds and escorted one-half.

NAVAL VESSELS BROUGHT HOME 1,700,000.

But this tells only half the story. Bringing back the American troops from Europe was almost as big a job as was taking them over. For this very little foreign shipping was available, and seven-eighths of all the troops and passengers returned from Europe were brought home in United States naval vessels. Naval transports took to Europe 911,047 men; other American vessels, 41,534. Naval vessels and transports brought back from Europe approximately 1,700,000 troops and passengers; all other vessels, American and foreign, a little more than 250,000. The exact figures up to October 1, 1919, were:

Total troops and passengers brought back from Europe to Oct. 1, 1919.....	1, 945, 367
Brought back by cruiser and transport force, United States Navy.....	1, 686, 944
Brought back by all other vessels, United States and foreign.....	258, 423

Several thousand returned subsequent to that date, bringing the total transported in naval vessels and transports up to approximately 2,600,000 carried on naval vessels.

Thus, it will be seen that a total of 2,600,000 men were transported by the Navy either to or from Europe. In the face of that record how puny and impotent are any efforts to disparage the great work accomplished by our Navy in troop transportation. I ask to insert in the record the tables, compiled by the statistical division of the United States cruiser and transport force, giving in detail the number of troops transported.

(The matter referred to is here inserted in the record, as follows:)

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APPENDIX F.

TROOP TRANSPORTATION.

(Tables compiled by Headquarters, Cruiser and Transport Force, United States Navy.)

TROOPS CARRIED TO EUROPE BY UNITED STATES AND FOREIGN VESSELS.

	Carried by United States Navy trans-ports.	Num-ber of United States Navy trans-ports sailed.	Carried by British ships.	Num-ber of British-leased Italian ships.	Num-ber of British-leased Italian ships sailed.	Carried by other United States ships.	Num-ber of other United States ships sailed.	Carried by other ships, French, Italian, etc.	Num-ber of other ships sailed.	Carried by United States Navy trans-ports and by other United States ships.	Num-ber of United States Navy trans-ports and other United States ships sailed.	Total trans-ported by all ships.	Total ships sailed.
1917.													
May.....	8,855	9	508	2	1,035	3	1,035	1,879	1	25,662	16	48,055	26
June.....	5,281	8	1,080	1	5,156	8	5,156	3	1	39,977	17	49,239	22
July.....	4,310	6	7,299	6	1,109	2	2,094	1,895	4	56,279	27	85,710	46
August.....	13,817	15	11,890	7	1,109	2	2,094	1,794	5	68,290	38	120,072	63
September.....	25,088	14	19,671	12	3,288	11	4,538	2,231	5	99,561	55	247,714	141
October.....	9,988	9	13,013	9	6,003	11	11,866	4	5	121,259	47	280,434	128
November.....	37,445	16	11,370	9	4,020	13	11,358	11,866	5	112,465	46	311,359	147
December.....					8,495	15	14,358	5,506	3	124,896	51	296,375	140
					5,811	18	5,506	1,950	3	112,536	53	289,670	129
					4,709	17	1,950			76,801	60	184,063	127
					235	3				1,426	12	12,124	24
1918.													
January.....	25,662	16	20,514	9				1,879	1	25,662	16	48,055	26
February.....	39,977	17	9,259	4				3		39,977	17	49,239	22
March.....	58,278	26	27,626	14	1	1		1,895	4	56,279	27	85,710	46
April.....	67,553	37	47,352	20	737	11		1,794	5	68,290	38	120,072	63
May.....	96,273	33	133,795	25	3,288	22	2	2,231	5	99,561	55	247,714	141
June.....	115,266	36	140,172	70	6,003	11	6	4,538	4	121,259	47	280,434	128
July.....	108,445	33	175,526	89	4,020	13	7	11,866	5	112,465	46	311,359	147
August.....	116,401	36	137,745	74	8,495	15	8	14,358	3	124,896	51	296,375	140
September.....	107,025	35	134,576	69	5,811	18	6	5,506	3	112,536	53	289,670	129
October.....	72,092	43	94,214	57	4,709	17	7	1,950	3	76,801	60	184,063	127
To Nov. 11.....	1,191	9	10,698	12	235	3				1,426	12	12,124	24
Grand total.....	911,047	388	1,006,987	546	41,534	126	39	62,066	43	962,581	514	2,079,880	1,142

PERCENTAGES OF TROOPS CARRIED TO EUROPE AND ESCORT DUTY PERFORMED BY UNITED STATES AND OTHER NAVIES.

	Per cent carried by United States Navy trans- porta.	Per cent carried by British ships.	Per cent carried by British- leased Italian ships.	Per cent carried by other United States ships.	Per cent carried by other ships, French, Italian, etc.	Per cent carried by United States Navy trans- porta and other United States ships.	Under United States escort.	Under British escort.	Under French escort.	Per cent under United States escort.	Per cent under British escort.	Per cent under French escort.
1917.												
May.....	67	23		34.5		67	258	1,285		17	83	
June.....	59	6.5				83.5	15,032	59		99	1	
July.....	41	57			2	41	10,083	2,566	247	78.5	20	1.5
August.....	22	61		6	11	28	12,259	4,129	3,015	63	21	16
September.....	41	59				41	17,432	12,898	3,268	51.5	39	9.5
October.....	62.5	32.5			5	62.5	36,893	3,134		92.5	7.5	
November.....	41.5	46		4.5	8	46	13,246	10,476		56.5	43.5	
December.....	77	23				77	42,783	6,032		87.5	12.5	
1918.												
January.....	53	42.5			4.5	53	35,827	12,228		75	25	
February.....	81.5	18.5				81.5	48,795	444		99	1	
March.....	65	33			2	65	73,095	12,615		85	15	
April.....	39.5	39.5		1	1.5	57	91,308	28,764		75.5	24.5	
May.....	39	53.5	2	1.5	1	40.5	200,463	26,652	599	88.5	11	5
June.....	50	50	5	2.25	1.5	43.5	244,631	30,912	4,891	87.5	11	1.5
July.....	35	56.5	3.5	1	4	36	258,332	46,329	6,998	83	15	2
August.....	41	48	3	3	5	44	237,920	22,572	25,883	83	8	9
September.....	41	52	3	2	2	43	204,298	20,691	14,691	96	8	6
October.....	39	51	6	2	1	42	150,274	51,454	2,335	70.5	28.5	1
To November 11.....	10	88		2		12	7,451	4,673		61.75	38.25	
Total.....	43.75	48.25	3	2.5	2.5	46.25	1,720,360	297,903	61,617	82.75	14.125	3.125

NAVAL INVESTIGATION.

PASSENGERS RETURNED TO UNITED STATES.

IMPORTED FROM EUROPE SINCE THE ARMISTICE.

	Carried by United States Cruiser and Transport Force.	Carried by all other ships, United States and foreign.	Total carried (all ships).	Per cent carried by Cruiser and Transport Force.	Per cent carried by all other ships.
1918.	7,689	508	8,197	93.9	6.1
.....	47,228	22,861	70,089	67.2	32.8
1919.	97,039	23,097	120,136	80.8	19.2
.....	96,368	44,463	140,831	68.3	31.7
.....	165,312	42,049	207,361	79.7	20.3
.....	243,697	30,806	274,503	88.8	11.2
.....	278,600	34,610	313,210	89	11
.....	314,167	28,779	340,946	92	8
.....	268,049	27,162	295,211	90.8	9.2
.....	112,694	2,127	114,821	98	2
.....	44,890	2,961	47,851	93.8	6.2
Total.....	1,675,733	257,423	1,933,156	86.7	13.3

TROOPS AND PASSENGERS RETURNED PRIOR TO THE ARMISTICE.

Month.	Carried by Cruiser and Transport Force.	Carried by all other ships, United States and foreign.	Total carried (all ships).	Per cent carried by Cruiser and Transport Force.	Per cent carried by all other ships.
1917.					
October.....	41	6	47	87.3	12.7
November.....	37		37	100	
December.....					
1918.					
January.....	66	1	67	98.6	1.4
February.....	274	86	360	76	24
March.....	402	86	488	82.3	17.7
April.....	508	46	554	91.7	8.3
May.....	544	39	583	93.3	6.7
June.....	368	101	469	78.4	21.6
July.....	946	23	969	97.6	2.4
August.....	1,920	67	1,987	96.6	3.4
September.....	1,710	56	1,766	97	3
October.....	3,436	306	3,742	91.8	8.2
To Nov. 11.....	959	183	1,142	84	16
Total.....	11,211	1,000	12,211	91.8	8.2

Total number of troops and passengers brought back from Europe up to Oct. 1, 1919..... 1,945,367
 Brought back by Cruiser and Transport Forces, United States Navy..... 1,686,944
 Brought back by all other vessels, United States and foreign..... 258,423

UNITED STATES TRANSPORTS USED IN CARRYING TROOPS TO EUROPE DURING HOSTILITIES AND RETURNING THEM TO AMERICA.

VOYAGES MADE PRIOR TO SIGNING OF ARMISTICE.

Name of ship.	Date placed in commission or attached to force.	Type of vessel.	Displacement.	Original troop-carrying capacity, including officers.	Maximum troop-carrying capacity, including officers.	Number of turn-arounds made.	Total number of all passengers carried to Europe.	Total number of passengers returned from Europe.
Aeolus.....	Aug. 4, 1917	Ex-German.....	22,000	2,800	3,500	8	24,770	400
Agamemnon.....	Aug. 21, 1917	do.....	30,000	3,400	5,800	10	36,097	214
America.....	Aug. 6, 1917	do.....	41,500	4,000	7,000	9	39,768	168
Antigone.....	Sept. 5, 1917	do.....	15,000	2,000	3,500	8	16,526	101
Calamares.....	Apr. 9, 1918	American passenger.	10,000	1,400	2,200	5	7,657	.....
Covington.....	July 28, 1917	Ex-German.....	41,500	3,400	4,100	6	21,628	.....
De Kalb (aux. cruiser).	May 12, 1917	do.....	14,280	800	1,600	11	11,334	48
Finland.....	Apr. 26, 1918	American passenger.	22,000	3,500	3,800	5	12,654	16
Geo. Washington.....	Sept. 6, 1917	Ex-German.....	39,435	5,600	6,500	9	48,373	484
Great Northern.....	Nov. 1, 1917	American passenger.	14,000	2,800	3,300	10	28,248	677
Hancock.....	.....	Marine transport.	10,000	1,000	1,000	2	1,438	.....
Harrisburg.....	May 29, 1918	American passenger.	15,000	2,100	2,600	4	9,855	.....
Henderson.....	May 24, 1917	do.....	10,000	1,800	2,500	10	16,352	112
Huron.....	July 25, 1917	Ex-German.....	15,000	2,300	3,400	8	20,871	67
K. der Nederlanden.....	Apr. 4, 1918	Dutch chartered.	13,600	2,200	2,200	3	6,283	.....
Kroonland.....	Apr. 25, 1918	American passenger.	22,000	3,300	3,800	5	14,125	77
Lenape.....	Apr. 24, 1917	do.....	7,000	1,200	1,800	6	8,975	.....
Leviathan.....	July 25, 1917	Ex-German.....	69,000	9,000	12,000	10	96,804	686
Louisville.....	Apr. 27, 1918	American passenger.	14,000	2,300	2,500	4	9,247	14
Madawaska.....	Aug. 27, 1917	Ex-German.....	15,000	2,000	2,800	9	17,931	21
H. R. Mallory.....	Apr. 17, 1918	American passenger.	11,000	1,800	2,000	6	9,756	.....
Manchuria.....	Apr. 25, 1918	do.....	26,500	3,500	4,800	4	14,491	16
Martha Washington.....	Jan. 2, 1918	Ex-German.....	14,500	2,800	3,400	8	22,311	185
Matsonia.....	Mar. 1, 1918	American passenger.	17,000	2,300	3,400	6	13,329	10
Maui.....	Mar. 6, 1918	do.....	17,500	3,500	3,800	4	11,042	11
Mercury.....	Aug. 3, 1917	Ex-German.....	16,000	2,900	3,200	7	18,542	20
Mongolia.....	May 8, 1918	American passenger.	26,695	3,700	4,700	5	19,013	24
Mount Vernon.....	July 28, 1917	Ex-German.....	32,130	3,100	5,800	9	33,692	86
Northern Pacific.....	Nov. 1, 1917	American passenger.	12,500	2,400	2,800	9	20,711	38
Orizaba.....	May 27, 1918	do.....	13,000	3,100	4,100	6	15,712	16
Pastores.....	May 6, 1918	do.....	13,000	1,600	2,100	6	9,928	99
Plattsburg.....	May 25, 1918	do.....	10,000	2,300	2,600	4	8,776	411
Pocahontas.....	July 25, 1917	Ex-German.....	14,500	2,400	2,900	9	20,503	221
Powhatan.....	Aug. 16, 1917	do.....	17,000	1,800	3,100	7	14,613	46
Pres. Grant.....	Aug. 2, 1917	do.....	33,000	4,800	5,900	8	39,974	.....
Pres. Lincoln.....	July 25, 1917	do.....	29,000	3,800	4,700	5	20,143	.....
Princess Matoika.....	May 27, 1918	do.....	17,500	3,500	3,900	6	21,216	206
Rijndam.....	May 1, 1918	Dutch chartered.	22,070	3,100	3,700	6	17,913	439
Siboney.....	Apr. 8, 1918	American passenger.	11,250	3,100	4,000	7	20,219	11
Sierra.....	July 1, 1918	do.....	10,000	1,500	1,700	1	1,712	.....
Susquehanna.....	Sept. 5, 1917	Ex-German.....	16,950	2,200	3,300	8	18,345	.....
Tenadores.....	Apr. 17, 1918	American passenger.	10,000	1,200	1,200	13	15,698	8
Von Steuben.....	June 9, 1917	Ex-German.....	22,000	1,200	2,900	9	14,347	21
Wilhelmina.....	Jan. 26, 1918	American passenger.	13,500	1,800	2,100	6	11,053	90
Zeelandia.....	Apr. 3, 1918	Dutch chartered.	12,950	1,800	3,000	5	8,349	8
Total			879,860	122,100	161,100	306	870,324	5,051

NOTE.—The figures in the table above do not include 40,723 men carried to Europe by these and other vessels in 1917, before they were regularly commissioned in the Cruiser and Transport Force, but which are included in the table of "Troops carried to Europe by United States and foreign vessels."

UNITED STATES TRANSPORTS USED IN CARRYING TROOPS TO EUROPE DURING HOSTILITIES AND RETURNING THEM TO AMERICA—Continued.

VOYAGES MADE FROM SIGNING OF ARMISTICE TO OCT. 1, 1919.

Name of ship.	Total number of turn-arounds made.	Total number of all passengers carried to Europe.	Total number of all passengers returned from Europe.	Total number of sick and wounded returned from Europe.	Total number of all passengers carried to and from Europe.	Date of arrival in United States on last voyage as a transport.	Date placed out of commission or transfer from force.	Final disposition.
Aeolus.....	7	182	22,080	5,018	47,432	1919. Sept. 5	1919. Sept. 5	Shipping Board.
Agamemnon.....	9	1,782	41,179	4,425	78,249	Aug. 18	Aug. 27	Army Transport Service.
America.....	8	42	46,823	4,668	86,801	Sept. 15	Sept. 26	Do.
Antigone.....	8	13	22,065	4,150	38,705	do.	Sept. 24	Do.
Ca'mareas.....	5	41	10,113	21	17,821	Aug. 17	Aug. 19	United Fruit Co.
Covington.....					21,628			Torpedoed and sunk July 1, 1918.
De Kalb (aux. cruiser).....	8	1	8,949	3,868	20,332	Sept. 5	Sept. 6	Shipping Board.
Finland.....	8	11	27,762	4,435	40,443	Sept. 4	Sept. 4	International Mercantile Marine.
Geo. Washington.....	9	351	34,142	5,085	83,350			
Great Northern.....	8	2,308	22,852	5,522	54,085	Aug. 8	Aug. 15	Army Transport Service.
Hancock.....					1,438	June 4	Sept. 7	
Harrisburg.....	6	624	14,140	2,808	24,619	Aug. 28	Aug. 11	International Mercantile Marine.
Henderson.....	6	822	8,606	4,284	25,892	Aug. 25	Sept. 12	
Huron.....	7	138	20,582	1,546	41,658	Aug. 23	Aug. 25	Shipping Board.
K. der Nederlanden.....	6		11,339	1,296	17,622	Aug. 19	Aug. 19	Dutch Govt.
Kroonland.....	8	22	23,598	2,554	37,822	Sept. 10	Sept. 13	Shipping Board.
Lenape.....				8	8,975	1918. Sept. 3	1918. Oct. 29	United Fruit Co.
Leviathan.....	9	1,517	93,746	10,913	192,753	1919. Sept. 8	1919. Sept. 9	Shipping Board.
Louisville.....	7	166	14,823	1,538	24,250	Aug. 20	Aug. 20	International Mercantile Marine.
Madawaska.....	7	7	16,978	2,287	34,937	Aug. 23	Sept. 2	Army Transport Service.
H. R. Mallory.....	7	2	12,143	2,371	21,901	Aug. 29	Aug. 30	Mallory S. S. Co.
Manchuria.....	9	232	39,501	6,196	54,230	Aug. 25	Aug. 29	Atlantic Transport Co.
Martha Washington.....	8	127	19,201	987	41,824	July 27		
Matsonia.....	8	237	23,321	853	36,895	Aug. 20	Aug. 21	Matson Nav. Co.
Maul.....	8	3	25,217	8,184	36,273	Aug. 17	Aug. 18	Do.
Mercury.....	8	30	20,871	510	39,463	Sept. 19	Sept. 27	Army Transport Service.
Mongolia.....	8	487	34,813	2,707	54,337	Aug. 9	Aug. 18	Atlantic Transport Co.
Mount Vernon.....	8	125	42,500	4,015	76,402	Sept. 11	Sept. 29	Army Transport Service.
Northern Pacific.....	4		8,117	5,895	28,866	Aug. 12	Aug. 21	Do.
Orizaba.....	9	16	31,705	2,933	47,449	Aug. 30	Sept. 4	Do.
Pastores.....	8		14,000	4,597	24,027	do.	Aug. 30	Shipping Board.
Plattsburg.....	7	509	14,634	2,956	24,330	Aug. 29	Aug. 29	International Mercantile Marine.
Pocahontas.....	9	1,715	20,693	1,382	43,141			
Powhattan.....	6	46	15,392	1,880	30,087	Aug. 23	Sept. 2	Army Transport Service.
Pres. Grant.....	8	130	37,025	3,301	77,129	Sept. 22	Oct. 6	Do.
Pres. Lincoln.....				9	20,143			Torpedoed—sunk May 31, 1918.
Princess Matoika.....	8	2,015	24,859	5,251	48,296	Sept. 10	Sept. 16	Army Transport Service.
Rijndam.....	7	5	20,972	4,465	39,329	Aug. 4	Aug. 4	Dutch Govt.
Siboney.....	10	177	34,702	5,307	55,169	Sept. 2	Sept. 10	Army Transport Service.
Sierra.....	8	3	10,689	2,250	12,404	Sept. 1	Sept. 1	Oceanic S. S. Co.
Susquehanna.....	7	1,029	15,537	2,676	34,911	Aug. 27	Aug. 29	Shipping Board.
Tenadores.....	1		1,664	226	17,370			Stranded on rocks at St. Nazaire.
Von Steuben.....	8	1,187	22,025	2,253	37,580	Sept. 28	Oct. 13	Army Transport Service.
Wilhelmina.....	7	3	11,577	2,610	22,723	Aug. 6	Aug. 6	Matson Nav. Co.
Zeelandia.....	7	3,170	15,737	3,549	27,344	July 31	July 31	Dutch Govt.
Total.....	304	19,275	956,672	141,779	1,850,435			

BATTLESHIPS AND CRUISERS USED FOR RETURNING TROOPS.

Name of ship.	Date attached to force or readiness for transporting troops.	Type of vessel.	Displacement.	Original troop-carrying capacity, including officers.	Maximum troop-carrying capacity, including officers.	Turn-around made.	Passengers returned from Europe.	Sick and wounded returned from Europe.	Date of arrival in United States on last voyage as a transport.	Date (1919) placed out of commission or transfer from force.
Charleston.....	Jan. 17, 1919	Cruiser.....	10,839	1,700	1,700	5	7,704	34	June 29	July 2
Connecticut.....	Dec. 25, 1918	Battleship.....	16,000	1,000	1,300	4	4,981	30	June 22	June 23
Frederick.....	Jan. 2, 1919	Cruiser.....	13,720	1,600	1,700	6	9,659	83	July 12	July 14
Georgia.....	Dec. 10, 1918	Battleship.....	14,948	900	1,400	5	5,869	58	June 28	July 1
Huntington.....	Dec. 14, 1918	Cruiser.....	13,720	1,700	2,000	6	11,913	42	June 5	July 8
Kansas.....	Dec. 10, 1918	Battleship.....	16,000	1,600	1,900	5	7,486	83	June 27	July 1
Louisiana.....	Dec. 21, 1918	do.....	15,000	900	1,400	4	4,714	29	June 30	June 30
Michigan.....	do.....	do.....	16,000	1,000	1,400	2	1,052	22	Apr. 26	July 2
Minnesota.....	Feb. 25, 1919	do.....	16,000	1,200	1,400	3	3,955	12	July 29	July 29
Missouri.....	Mar. 6, 1919	do.....	12,240	1,700	1,000	4	3,278	14	July 26	July 28
Montana.....	Jan. 12, 1919	Cruiser.....	14,375	1,300	1,500	6	8,900	29	June 21	June 22
Nebraska.....	Dec. 28, 1918	Battleship.....	16,325	1,000	1,200	4	4,530	47	June 22	June 24
New Hampshire.....	Dec. 21, 1918	do.....	18,664	1,000	1,300	4	4,900	14	June 22	June 24
New Jersey.....	Dec. 23, 1918	do.....	14,046	1,000	1,400	4	4,675	29	June 7	June 9
North Carolina.....	Dec. 23, 1918	Cruiser.....	14,372	1,200	1,500	6	8,982	15	July 1	July 3
Ohio.....	Feb. 4, 1919	Battleship.....	14,150	1,700	1,700	1	778	8	Mar. 13	Mar. 15
Pueblo.....	Jan. 18, 1919	Cruiser.....	13,300	1,550	1,800	6	10,136	33	July 13	July 15
Rhode Island.....	Dec. 17, 1918	Battleship.....	18,948	900	1,100	5	5,203	26	July 4	July 6
Rochester.....	Jan. 14, 1919	Cruiser.....	8,150	300	300	1	9,317	41	Mar. 4	Mar. 6
Seattle.....	Dec. 21, 1918	do.....	15,000	1,500	1,600	6	4,501	11	July 26	July 28
South Carolina.....	Feb. 15, 1919	Battleship.....	16,000	1,100	1,400	4	3,463	22	July 19	July 20
South Dakota.....	Dec. 21, 1918	Cruiser.....	14,000	1,600	1,800	2	8,437	18	June 13	June 14
St. Louis.....	Dec. 18, 1918	do.....	9,700	1,300	1,400	6	4,795	22	June 20	June 22
Vermont.....	Dec. 7, 1919	Battleship.....	16,000	1,000	1,200	4	4,795	18	July 5	July 7
Virginia.....	Dec. 17, 1918	do.....	14,980	1,900	1,400	5	5,784	18	July 5	July 7
Total.....			358,477	28,450	34,400	108	145,249	681		

NOTE.—Eighteen passengers were carried to Europe on U. S. battleships and cruisers.

MERCHANT SHIPS CONVERTED INTO TROOP TRANSPORTS FOR RETURNING TROOPS AFTER SIGNING OF ARMISTICE.

Name of ship.	Date placed in commission or attached to force.	Type of vessel (cargo, except where otherwise stated).	Displacement.	Original troop-carrying capacity, including officers.	Maximum troop-carrying capacity, including officers.	Turn-around made.	Passengers returned from Europe.	Sick and wounded returned from Europe.	Date (1919) of arrival United States on last voyage as transport.	Date placed out of commission or transfer from force.
Alaskan.....	Dec. 12, 1918	American.....	8,000	2,100	2,300	4	8,643	25	July 16	July 16
Amphion.....	Apr. 12, 1919	Ex-German.....	15,530	2,400	2,500	3	6,417	45	Sept. 3	Sept. 4
Ancon.....	Mar. 28, 1919	American.....	20,000	3,000	3,100	2	6,112	40	July 7	July 15
Arcadia.....	Jan. 20, 1919	Ex-German.....	7,900	1,000	1,100	5	4,700	40	Sept. 11	Sept. 13
Arizona.....	Aug. 14, 1918	American.....	18,500	2,500	2,600	4	7,794	28	Sept. 2	Sept. 2
Artemis.....	Apr. 8, 1919	Ex-German.....	12,540	3,900	4,000	4	11,790	120	Sept. 23	Sept. 24
Black Arrow.....	Jan. 27, 1919	do.....	12,000	1,600	1,600	3	4,759	24	July 21	Aug. 1
Bufford.....	Jan. 15, 1919	Army transport.....	10,000	1,000	1,200	5	4,717	25	Aug. 22	Aug. 26
Callao.....	Apr. 28, 1919	Ex-German.....	13,164	2,400	2,400	2	3,731	52	Sept. 4	Sept. 8
Canandaigua.....	Mar. 2, 1919	do.....	7,619	1,400	1,400	4	4,528	32	Aug. 26	Sept. 26
Canonicus.....	Mar. 8, 1919	American.....	7,500	1,400	1,400	3	4,183	27	July 10	July 12
Cape May.....	Jan. 29, 1919	do.....	10,350	1,900	1,900	3	5,726	19	July 6	July 14
Comfort.....	Mar. 18, 1918	U. S. Navy hospital ship.....	10,000	300	1,900	3	1,192	649	Mar. 13	Mar. 13
Dakota.....	Jan. 29, 1919	American.....	14,375	1,500	2,000	5	8,812	37	July 20	Sept. 12
Eddelyn.....	July 18, 1919	do.....	12,500	985	985	1	985	3	Sept. 4	Sept. 12
El Sol.....	Aug. 5, 1918	do.....	10,000	1,800	1,800	2	2,710	4	Aug. 23	Aug. 25
El Oriente.....	Apr. 11, 1919	do.....	11,000	2,000	2,000	2	2,961	5	Aug. 24	Aug. 25
Etten.....	May 1, 1919	Ex-German.....	6,900	1,500	1,800	2	3,296	46	July 31	Aug. 5
Eurana.....	Sept. 13, 1918	American.....	15,250	1,800	1,900	2	1,986	19	Sept. 14	Sept. 27
Florida.....	Jan. 28, 1919	do.....	11,175	1,600	1,700	4	4,981	19	July 15	Sept. 17
Freedom.....	Jan. 24, 1919	Ex-German.....	7,700	1,000	1,000	4	7,209	4	Sept. 14	Sept. 17
Gen. Goethals.....	Mar. 10, 1919	do.....	5,300	1,000	1,100	4	4,238	20	July 8	Sept. 5
Gen. Gorgas.....	Mar. 8, 1919	do.....	5,300	1,000	1,100	2	2,063	13	July 3	Sept. 15
Housatonic.....	Feb. 27, 1919	American.....	7,522	1,400	1,400	3	4,166	6	July 13	Do.
Iowan.....	Dec. 23, 1917	do.....	13,912	1,800	2,000	3	9,876	32	Aug. 30	Aug. 30
Kentuckian.....	Jan. 29, 1919	do.....	14,405	1,900	2,000	5	8,985	23	Sept. 2	Sept. 2
Lancaster.....	June 19, 1919	do.....	11,500	2,000	2,000	4	5,624	276	Sept. 4	Sept. 5
Liberator.....	July 28, 1918	do.....	12,000	2,500	2,500	5	9,638	9	do.....	Sept. 4
E. F. Luckenbach.....	June 17, 1918	do.....	26,000	2,500	2,500	13	9,372	13	do.....	Sept. 4
Edward Luckenbach.....	Dec. 20, 1919	do.....	5,000	2,200	2,200	3	6,812	28	July 28	July 28
F. J. Luckenbach.....	Feb. 22, 1919	do.....	12,000	2,400	2,400	2	4,945	12	July 29	July 31
Julia Luckenbach.....	Jan. 17, 1919	do.....	18,390	2,700	2,700	4	10,579	39	Aug. 4	Aug. 4
Katrina Luckenbach.....	May 18, 1918	do.....	2,250	2,250	2,250	1	1	10	Sept. 15	Sept. 13
K. J. Luckenbach.....	Aug. 9, 1918	do.....	16,000	2,300	2,400	3	4,883	300	Sept. 11	Sept. 17
W. A. Luckenbach.....	Dec. 14, 1918	do.....	17,170	2,400	2,600	2	3,243	8	Sept. 2	Sept. 12
Maria.....	June 9, 1919	do.....	10,100	2,400	2,400	4	1,977	1,377	May 25	May 25
Merry.....	Jan. 24, 1918	U. S. Navy hospital ship.....	18,200	2,500	2,500	5	12,396	12	July 23	July 23
Maxican.....	Dec. 13, 1918	American.....	18,200	2,500	2,500	5	12,396	12	July 23	July 23

Mississippian.	Jan. 8, 1919	do.	14,375	2,000	2,000	2,490	4	5,988	15	Aug. 10	Aug. 15
Mississippian.	Mar. 20, 1919	Ex-German.	15,480	2,000	2,000	2,490	4	7,587	15	Sept. 10	Sept. 15
Nashville.	Mar. 20, 1919	do.	15,480	2,000	2,000	2,490	4	7,587	15	Sept. 10	Sept. 15
Ohioan.	Aug. 7, 1918	American.	27,345	1,000	1,000	6,800	6	22,619	557	Sept. 16	Sept. 21
Owego.	Aug. 8, 1918	Ex-German.	8,750	1,000	1,000	1,900	4	8,283	42	Aug. 28	Aug. 31
Panama.	Aug. 12, 1918	American.	14,468	2,100	2,100	2,200	6	13,446	79	Aug. 29	Aug. 31
Paysandu.	Jan. 20, 1919	Ex-German.	5,750	1,400	1,400	1,400	2	2,736	4	July 16	July 16
Peerless.	Mar. 28, 1919	American.	4,214	2,300	2,300	2,300	3	4,059	11	Aug. 30	Sept. 2
Philippines.	May 1, 1919	Ex-German.	18,650	4,000	4,000	2,000	2	4,142	6	Sept. 26	Sept. 28
Radnor.	Mar. 6, 1919	American.	14,000	2,000	2,000	2,000	4	5,876	15	Sept. 23	Sept. 24
Roanoke.	Mar. 19, 1919	do.	6,500	1,400	1,400	1,400	4	5,507	19	Aug. 1	Aug. 1
Santa Ana.	Feb. 11, 1919	do.	9,000	1,400	1,400	1,700	4	5,960	39	July 23	July 24
Santa Barbara.	Feb. 21, 1919	do.	9,400	1,600	1,600	1,600	4	6,310	6	July 23	July 24
Santa Cecilia.	May 20, 1918	do.	11,000	2,000	2,000	2,000	4	6,126	67	Sept. 7	Sept. 26
Santa Clara.	Jan. 18, 1919	do.	13,000	1,600	1,600	1,800	4	6,863	3	Aug. 3	Aug. 3
Santa Elena.	Apr. 26, 1919	do.	13,000	1,900	1,900	1,900	2	1,707	3	July 23	Aug. 20
Santa Elisa.	June 15, 1919	Ex-German.	9,345	1,400	1,400	1,400	2	2,312	6	Sept. 19	Sept. 26
Santa Leonora.	July 7, 1918	do.	9,345	1,400	1,400	1,700	3	3,756	26	Aug. 19	Sept. 9
Santa Malta.	Feb. 19, 1919	do.	13,340	1,700	1,700	1,700	3	3,756	21	Aug. 30	Oct. 14
Santa Olivia.	Dec. 20, 1918	do.	9,400	1,900	1,900	2,200	4	7,491	172	Aug. 9	Aug. 14
Santa Paula.	Jan. 29, 1919	do.	13,500	2,100	2,100	2,200	4	7,447	14	Aug. 4	Aug. 4
Santa Rosa.	Mar. 10, 1919	do.	10,000	2,100	2,100	2,100	4	6,302	29	Sept. 23	Sept. 24
Santa Teresa.	Nov. 8, 1918	do.	6,900	1,900	1,900	2,000	8	14,264	4,518	Sept. 8	Sept. 8
Scranton.	Feb. 5, 1919	do.	14,000	1,900	1,900	1,900	3	5,625	15	July 16	July 16
Shoshone.	Feb. 19, 1919	Ex-German.	8,749	1,400	1,400	1,400	2	2,820	4	do.	do.
Sol Navis.	June 25, 1919	American.	11,075	2,400	2,400	2,400	3	3,294	3	Sept. 26	Sept. 29
South Bend.	May 5, 1919	do.	17,716	2,300	2,300	2,300	2	4,875	110	Aug. 23	Sept. 3
Suwanee.	Apr. 11, 1919	Ex-German.	6,000	2,000	2,000	2,000	3	4,801	15	Sept. 3	Do.
Texas.	Jan. 18, 1919	American.	19,000	2,300	2,300	2,600	4	8,668	7	Aug. 5	Aug. 7
Tiger.	Mar. 7, 1919	do.	10,000	2,600	2,600	2,600	3	7,739	55	July 29	July 29
Troy.	Feb. 27, 1919	do.	37,336	5,900	5,900	5,900	3	14,039	48	Aug. 20	Aug. 21
Virginian.	Feb. 1, 1919	do.	12,600	4,000	4,000	4,300	4	16,681	279	Aug. 3	Aug. 4
Yale.	June 15, 1919	do.	10,000	4,000	4,000	4,300	1	16,901	.....	June 20	July 20
Total.			884,008	140,235	140,035	146,035	246	441,986	10,452		

NOTE.—A total of 186 passengers were carried to Europe on the above vessels; 2 United States Navy hospital ships are included in above list.

GERMAN PASSENGER SHIPS USED FOR RETURNING TROOPS AFTER SIGNING OF ARMISTICE.

Name of ship.	Date (1919) in commission.	Displacement.	Original troop-carrying capacity.	Maximum troop-carrying capacity.	Number of turn-arounds made.	Passengers carried to Europe.	Passengers returned from Europe.	Sick and wounded returned.	Total passengers carried.	Arrival on last voyage as transport.	Placed out of commission or transfer.
Cap Finesterra.....	Apr. 11	23,000	3,800	3,800	34	1,121	9,718	58	10,839	Aug. 19	Sept. 29
Graf Waldersee.....	Mar. 28	13,183	4,300	9,800	24	.....	7,728	21	7,728	Aug. 30	Sept. 17
Imperator.....	May 5	60,000	8,900	9,800	34	161	28,080	147	28,191	Aug. 10	Sept. 29
K. A. Victoria.....	Apr. 27	30,400	5,500	5,500	44	31	22,674	460	22,705	Aug. 22	Sept. 30
Mobile.....	Mar. 26	27,000	4,800	5,200	44	12	21,073	23	21,085	Sept. 3	Sept. 30
Patricia.....	Apr. 25	12,500	2,900	3,000	34	1,083	8,572	11	8,572	Aug. 16	Sept. 29
Pretoria.....	Aug. 24	14,100	3,000	3,000	34	.....	10,364	40	11,447	Aug. 31	Sept. 29
P. F. Wilhelm.....	Mar. 30	26,660	3,600	4,300	44	1	14,161	21	14,162	Aug. 23	Sept. 1
Zeppelin.....	Mar. 29	12,450	4,300	4,300	44	.....	15,800	28	15,800	Sept. 5	Oct. 1
Total.....	.....	220,969	41,100	42,400	344	2,409	138,120	806	140,529	.....	.....
Grand total.....	.....	2,341,038	332,065	383,935	6924	21,898	1,682,027	153,720	2,578,423	.....	.....

NOTE.—Discrepancy of 6,294 in the tables showing number of passengers returned to the United States since November 11, 1918, is due to the difficulty in crediting the different transports with the exact number of passengers each returned about the date the armistice was signed. Discrepancy of 6,160 between the tables showing passengers returned to the United States prior to the armistice is due to the same cause.

RECORD OF 10 LEADING SHIPS, CRUISER AND TRANSPORT FORCE.

Name of ship.	Date placed in commission or attached to force.	Type of vessel.	Displacement.	Original troop-carrying capacity.	Maximum troop-carrying capacity.	Number of turn-arounds made.	Passengers carried to Europe.	Passengers returned from Europe.	Number of turn-arounds made.	Passengers carried to Europe.	Sick and wounded returned.	Total of all passengers carried.
Leviathan.....	July 25, 1917	Ex-German	69,000	9,000	12,000	10	96,804	686	9	1,517	93,746	192,753
America.....	Aug. 6, 1917	do.	41,500	4,000	7,000	9	37,768	168	8	42	4,668	86,801
George Washington.....	Sept. 6, 1917	do.	39,435	5,600	6,500	9	48,373	484	9	351	34,142	93,350
Agamemnon.....	Aug. 21, 1917	do.	30,000	3,400	5,800	10	36,097	214	9	1,782	41,179	78,249
President Grant.....	Aug. 2, 1917	do.	33,000	4,800	6,900	8	39,974	.....	9	1,380	37,078	77,129
Mount Vernon.....	July 28, 1917	do.	32,130	3,100	5,800	8	33,692	86	8	125	12,500	76,402
Shoney.....	Apr. 8, 1918	American passenger.	11,260	3,000	4,000	7	20,799	11	10	177	34,702	56,169
Monrovia.....	Apr. 8, 1918	do.	26,695	3,700	4,700	5	19,013	24	8	487	34,813	54,337
Manchuria.....	Apr. 25, 1918	do.	26,500	3,500	4,800	4	14,491	16	9	272	39,501	64,280
Great Northern.....	Nov. 1, 1917	do.	14,000	2,800	3,300	10	28,248	677	8	2,308	22,852	54,065
Total.....	.....	.....	323,510	43,000	59,800	81	374,679	2,366	86	7,151	427,293	812,505

Month.	Army—181,646.							Navy—4,306.							Marines—3,626.							Total.
	Mobile.	Litter.	Genito-urinary.	Insane.	Tubercu-losis.	Conta-gious.	Dead.	Mobile.	Litter.	Genito-urinary.	Insane.	Tubercu-losis.	Conta-gious.	Dead.	Mobile.	Litter.	Genito-urinary.	Insane.	Tubercu-losis.	Conta-gious.	Dead.	
1918.																						
January.....	85	7	3	6	22	1	7	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	148
February.....	29	18	4	7	82	10	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	148
March.....	78	2	.....	12	19	42	26	15	1	9	13	3	9	3	3	.....	.....	.....	.....	.....	.....	152
April.....	59	27	16	16	66	24	7	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	290
May.....	148	39	7	66	89	6	4	17	2	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	414
June.....	95	69	5	29	50	6	4	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	308
July.....	349	204	23	137	140	39	5	36	15	16	4	4	2	.....	.....	.....	.....	.....	.....	.....	.....	1,011
August.....	505	180	49	213	162	56	12	59	32	30	15	20	8	.....	.....	.....	.....	.....	.....	.....	.....	1,414
September.....	1,667	537	40	336	143	14	3	24	14	11	11	11	3	.....	.....	.....	.....	.....	.....	.....	.....	3,045
October.....	2,701	1,005	23	593	229	333	322	53	14	21	6	15	4	40	124	69	1	.....	.....	.....	.....	5,639
November.....	5,718	877	67	175	224	182	36	140	15	25	8	6	3	30	136	59	4	5	3	2	.....	7,895
December.....	14,786	1,335	73	500	261	55	15	219	6	58	7	13	7	7	337	51	15	6	3	.....	.....	17,763
Total.....	26,220	4,300	310	2,091	1,467	732	444	611	108	194	58	78	71	102	840	251	20	16	30	2	.....	38,036
1919.																						
January.....	15,520	2,554	66	382	303	158	9	773	86	67	9	17	4	.....	139	14	3	5	2	.....	.....	19,611
February.....	13,019	1,020	70	421	292	470	31	190	40	109	3	6	27	6	235	8	2	2	2	.....	.....	15,933
March.....	19,203	2,331	90	796	553	750	38	188	47	82	5	12	24	4	560	51	3	13	9	8	.....	24,748
April.....	16,163	1,902	60	645	754	389	12	138	53	50	4	11	38	4	381	42	.....	14	6	1	.....	19,646
May.....	14,961	1,019	78	1,226	600	281	18	169	37	72	5	4	15	2	312	18	.....	17	9	25	.....	18,818
June.....	10,921	910	207	506	221	91	12	132	30	37	6	12	4	1	239	9	3	10	4	.....	.....	13,355
July.....	3,361	383	322	383	207	46	11	76	16	64	3	3	3	1	50	2	.....	3	3	.....	.....	5,188
August.....	2,343	217	108	107	94	65	6	76	26	117	2	3	8	.....	142	8	15	7	2	4	.....	3,350
September.....	2,364	206	23	46	36	6	2	112	23	98	10	4	.....	.....	11	4	.....	.....	.....	.....	.....	3,945
Total.....	94,855	10,294	1,024	4,512	3,040	2,206	134	1,854	358	696	47	72	123	23	2,069	156	26	71	36	38	.....	121,634
Grand total.....	121,075	14,594	1,334	6,603	4,527	2,938	578	2,465	466	890	105	150	194	125	2,909	407	46	87	66	41	70	159,670

Secretary DANIELS. Just before his departure from London for "the States," a "Summary of activities of United States naval forces operating in European waters" was issued to the press from Admiral Sims's headquarters. This bore on the first page the following caution:

IMPORTANT NOTE.

These notes are designed to furnish material only for those who may wish to write something regarding the operations of the United States naval forces in European waters.

No part of them should be directly quoted nor should any statement be made as to how or by whom they were supplied.

Why Admiral Sims enjoined such secrecy as to the origin of the information I do not know; nor why the writers were warned not to make any statement "as to how or by whom they were supplied."

As this statement was pretty widely circulated, I hope I am not violating any deep confidence in revealing its source and quoting a few of the statements made therein:

The United States Navy escorted 62 per cent, or about 1,250,000 troops, of United States expeditionary forces to Europe without loss from enemy action.

British transports carried during the war from the United States 53 per cent of all American troops sent to France. American transports carried 45 per cent, and French transports carried 2 per cent.

During the rush period, that is, from April 1 to October 31, 1918, British transports carried 57 per cent of the American troops and American and French transports carried 43 per cent. During the month of August, British transports carried 65 per cent of the American troops.

Admiral Sims did not mention in this summary the immense work being performed by the Navy in bringing American troops home from Europe, though at the time we were bringing them back at the rate of a quarter of a million per month in Navy transports, and brought back some 1,500,000 in eight months, returning, in all, as I said, about 1,700,000.

WORK OF THE CRUISER AND TRANSPORT FORCE.

I wish Admiral Gleaves, who was in command of the cruiser and transport force from its inception up to September 1, 1919, when he was made commander in chief of the United States Asiatic Fleet, could appear here as a witness and tell you how that great force was built up, how the many difficulties were overcome, and describe to you the work it did for more than two years. But the record speaks for itself, and some figures and extracts from Admiral Gleaves's reports will give you some idea of the force and its work.

Beginning with a few cruisers and transports hastily gathered together to transport the first of the American Expeditionary Forces to France in 1917, the cruiser and transport force grew before the armistice to a large fleet, comprising 66 American vessels—24 cruisers and 42 transports manned by 3,000 officers and 42,000 men; these being augmented by four French men-of-war and 13 foreign merchant vessels—a total of 83. After the armistice, in order to bring home the American Army in the shortest possible time, this force was increased by the utilization of 15 battleships and 10 cruisers as troop carriers; the use of 9 large German vessels which were turned over to us under the armistice arrangements to be used for this purpose, and

the conversion of 56 cargo vessels into troop carriers. The maximum number of vessels assigned to and operated by the Navy in troop transportation was 142, with facilities for carrying 13,914 officers and 349,770 men.

STEADY INCREASE IN TROOP-CARRYING CAPACITY.

At the beginning of troop transportation, in June, 1917, the total capacity of our transports was only about 13,000. The large increase came with the putting into service of the interned German vessels, which were repaired and manned by the Navy. By October the capacity was practically doubled, and this was further augmented when the *Leviathan* and the last of these big ships were put into operation. In December we carried over 37,445 in naval transports; the Navy in the meantime having taken over and manned a number of Army transports previously manned by civilian crews.

In 1917 very little foreign shipping was available, though some thousands of officers and men went to Europe on foreign passenger vessels, and of the 194,938 United States troops which crossed the Atlantic in that year, that is 1917, 113,429 sailed in American vessels, 104,894 of them in naval transports.

In January, 1918, four convoys were dispatched by the Navy, carrying 25,662 troops. In February the Austrian ship *Martha Washington* was added to the force, and three convoys, averaging five ships each, were dispatched, carrying 39,977 troops. Up to March 1 the total number of troops transported was 292,232, of which 179,068 had been carried in American vessels, 170,533 of them in United States naval transports.

FOREIGN SHIPPING MADE AVAILABLE IN QUANTITIES AFTER MARCH DRIVE.

With the launching of the great German drive in March, 1918, the demand for American troops became imperative, and the Navy responded by increasing the troop shipment for the month to 56,278. The fast passenger ships *Great Northern* and *Northern Pacific* were brought around from the Pacific and, with the *Matsonia*, were added to the force. In February foreign vessels had carried over only 9,259 men, but when the great drive on the western front occurred in March, allied shipping in large amounts was assigned to the carrying of American troops. Getting them to France was the most vital thing in the world to the allied cause.

Numerous British vessels were assigned to the carrying of American troops, and in this the British Government rendered us an invaluable service, though, of course, the United States paid for the passage of every man transported. In March British vessels carried 27,626, other foreign ships 1,895; United States naval transports 58,278. In April United States transports carried 67,553; British vessels 47,362; British-leased Italian ships 2,626; other foreign vessels 1,794.

The great Cunard and White Star liners, which had transported Canadian troops to England and British troops to and from the Mediterranean, were put into the Atlantic service. In addition to the British liners, the British ships *Czar*, *Czaritza*, *Dwinsk*, *Kursk*, and

Vauban; the French ships *France*, *Lutetia*, and *Patria*; the Italian ships *America*, *Caserta*, *Dante*, *Aligheri*, *Duca D' Asta*, and *D' Italia*, and the Brazilian ship *Sobrol*, formerly a German vessel, were chartered from the Allies by the War Department, and sailed in United States naval convoys.

Troop transportation rose from 89,239 in March to 120,072 in April and to 247,714 in May. In April the Navy carried 67,353; in May, 96,273; in June, 115,256; in July, 108,445; in August, 116,422; in September, 107,025. British ships in April carried 47,362; in May, 133,795; in June, 140,172; in July, 175,526; in August, 137,745; in September, 134,576. In October the troop movement decreased, United States ships carrying 72,092 and British vessels, 94,214. It will be seen that the biggest troop movement was from May to October, inclusive, and in those six months, in addition to the large numbers carried by British ships, 68,246 troops were carried by British-leased Italian vessels and 40,499 were carried in other foreign vessels, French, Italian, etc.

OF FIRST MILLION, 524,457 WERE CARRIED IN AMERICAN SHIPS.

On July 1, 1918, the total number of United States troops in France or embarked for Europe was 1,029,003. Of these, 524,457 had been sent in American ships, 456,854 in British vessels, 18,476 in French and Italian ships, and 29,218 in Italian vessels leased by the British Government. It is interesting to note that of the first million American troops landed in France, 320,000, nearly one-third, were carried in the former German ships which had been taken over by this Government and had been repaired and were manned and operated by the Navy.

By the end of hostilities, November 11, 1918, 2,079,880 American troops had been transported to France, of which 952,581 were carried in American vessels; 1,006,987 in British ships, 68,246 in British-leased Italian vessels, and 52,066 in other ships, mostly French and Italian.

ALL RECORDS BROKEN IN BRINGING TROOPS HOME.

The return movement began immediately after the armistice, but only a few soldiers, 8,197, were returned in November and 70,089 in December. In January, 1919, 120,136 were returned, 97,039 of them in naval transports; in February, 140,831; 96,368 in naval vessels. With the increase in the number of transports, 207,361 sailed for home in March, 274,503 in April, 313,210 in May, and in June, the high-water mark of July, 1917, when all available allied shipping was being utilized, 311,359 was exceeded, and 340,946 troops were embarked, 314,167 of them in United States naval vessels. By July, 1919, a million and a half soldiers had been brought back to the United States. By October 1, 1919, 1,945,367 had been brought home from Europe, 1,686,944 in naval vessels and transports and 258,423 by all other vessels, United States and foreign.

And all this was accomplished without the loss, through enemy action, of a single soldier on a troop transport manned and operated by the United States Navy. Does history record such another record as that?

WOULD HAVE BEEN BETTER TO HAVE LOST TROOP TRANSPORTS THAN CARGO SHIPS, SIMS AGAIN SAYS.

The latest testimony of Admiral Sims regarding his attitude toward troop and cargo ships was given in the Fletcher court of inquiry. The Army and Navy Journal, of April 17, 1920, reports Capt. Twining, Sims's chief of staff, as saying:

Admiral Sims was not of the opinion in July and August (1917) that it was expedient to send oil-burning destroyers to Brest, for those craft were fully employed from the Queenstown base doing the same work as the forces based on France, and their time would not have been fully occupied.

The Queenstown destroyers were employed 67 to 75 per cent of the time on useful work in bringing in supply ships when cargo ships were more valuable than transport ships.

"Rear Admiral W. S. Sims was the chief witness before the court on April 15," says the Army and Navy Journal, and in its report of his testimony is the following:

After Commander Daniels returned to London, said Admiral Sims, in a personal letter of advice and admonition he gave Admiral Fletcher a résumé of the commander's report. Asked what he meant by warning Admiral Fletcher that in case of loss of a ship, "nothing will save your head or mine," Admiral Sims said it was an admonition, "that both of us would get racked of it; that's all." There was a political significance in the loss of ships, he said. In further explanation he said: "It may seem heartless for me to say so, but under the conditions it would have been better to have lost troop transports, for we had to save cargo ships at all hazards."

If I had believed, Mr. Chairman, that Admiral Sims cherished any such idea; that he valued supplies more than the lives of American soldiers; that he was willing to endanger troop transports in order to save cargo ships, he would have been instantly removed from command.

PROTECTION OF SHIPPING—THE CONVOY SYSTEM.

Germany's declaration of unrestricted submarine warfare, beginning February 1, 1917; its announcement that neutral as well as belligerent vessels entered the "barred zones" would be sunk without warning, made the protection of our shipping the immediate duty. All possible methods to this end were given prompt consideration—the arming of merchant ships, the convoy system, and every other measure that could be suggested. The General Board, in its special report submitted February 4, 1917, the day after the breaking off of relations with Germany, urged that we "arrange, as soon as possible, plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce," as well as for "offensive naval operations against the common enemy." While it was realized that these joint methods could not be put into effect until after we had declared war; and that the convoy system could not be made generally effective until it had been adopted by Great Britain, France and Italy, the General Board, in response to my letter of March 20, that is before we entered the war, regarding "protection of merchant shipping" in its report submitted the same day placed first among its recommendations:

(a) Escort vessels to deep water from our ports and similarly from deep water to our ports.

(b) Arrange with British and French Governments for the convoy of our merchant ships through the barred zone.

Thus it will be seen, the convoy system was being considered by the Navy Department before we had determined to send Admiral Sims to Europe.

The President was among the first to suggest convoy, and in my brief conversation with Admiral Sims previous to his departure, I mentioned to the Admiral that various measures had been suggested, and the President was in favor of convoying ships. I myself favored convoy, though some of our leading naval authorities had pointed out the many difficulties it involved and the fact that, after three years of war, the British Navy, after considering it time and again had practically rejected the system.

ARMING OF MERCHANT VESSELS.

Immediately after the declaration of unrestricted submarine warfare, the President decided—and in this he was supported by practically all our naval authorities—that American vessels should be armed for protection against submarine attack, and Congress, in response to his message, took up the question, and, though a handful of Senators by filibustering prevented the formal adoption of the resolution, Congress by an overwhelming majority expressed its approval.

The arming of merchantmen was, in fact, about the only measure of protection we could put into effect before Congress had declared the existence of a state of war. Preparing for this task, the Navy Department had ordered from the fleet, then in Cuban waters, a number of gun crews, the guns were ready, and when the President, on March 12, ordered the arming of merchant ships the work was immediately begun, and within three days the first vessel armed sailed from New York, equipped with naval guns, manned by expert gunners. Whatever may have been the experience of other nations, this policy proved a success, so far as American shipping was concerned. Though vessels of slow speed, as many of these vessels formed easy marks for the submarine, in the first three months of our participation in the war—April 6 to July 6, 1917—we lost only six armed vessels, four of which were slow tankers, though this was the very height of the submarine warfare, when the total sinkings ranged from 500,000 to 800,000 tons a month. During these three months when the allied sinkings amounted to over 2,000,000 tons, our losses in armed ships were only 22,083 tons. Of the 384 American merchant vessels armed during the war, the records show that only 31 were sunk by submarines, and 193 submarine attacks were successfully repelled. Though no one ever regarded arming as complete protection against submarines, the facts given above are sufficient evidence of its value.

CONVOY SYSTEM BEING CONSIDERED BEFORE SIMS WENT TO EUROPE.

Admiral Badger has told you that in March, previous to Admiral Sims's departure for Europe, the General Board had recommended the convoy system; and this was in response to my letter of March 20, 1917, written at the instance of the President, who, as I said, directed me to "call upon the General Board to outline the measures that the Navy can employ for the most effective protection of the

merchant shipping to European ports, in addition to the armed guards that have already been undertaken."

That letter follows:

NAVY DEPARTMENT,
Washington, March 20, 1917.

Confidential.

To: The General Board.

Subject: Protection of American shipping.

1. The President directs me to call upon the General Board to outline the measures that the Navy can employ for the most effective protection of the merchant shipping to European ports, in addition to the armed guards that have already been undertaken. It is desired that every character of protection to this merchant shipping be considered by the board, and recommendations be made as to what additional agencies can be employed to protect American lives and American shipping.

Always insisting upon that, from the beginning.

2. This specific question—the fullest and most ample protection of this shipping, is the immediate problem committed to the Navy, and its duty to spare no effort or expense for such protection is imperative, and it is to the answer of this pressing problem that the recommendations of the General Board should apply.

3. Expedite report and embody specific recommendations.

JOSEPHUS DANIELS.

The General Board replied the same day—that is the way we delayed things—as follows:

MARCH 20, 1917.

G. B. No. 425-A.

(Serial No. 689.)

Confidential.

From: Senior member present.

To: Secretary of the Navy.

Subject: Protection of American shipping.

Reference: Secretary of the Navy's confidential letter, March 20, 1917.

1. Of the measures advocated by the General Board in its letter of February 4, 1917, G. B. No. 425, Serial No. 666, especial attention is invited to the following which bear directly upon the protection of our commerce in transit between the United States and Europe.

(a) Escort vessels to deep water from our ports and similarly from deep water to our ports.

(b) Arrange with British and French Governments for the convoy of our merchant ships through the barred zones.

(c) Merchant ships to proceed on high seas from points of leaving and receiving escorts, depending upon their guns for protection and upon changes of course to follow alternate routes.

(d) Arrange with British and French Governments a code of signals to be used in directing merchant ships as to routes to be followed and points of meeting escorts.

(e) Establish a patrol of the Atlantic coast.

(f) Recruit up to the limit allowed by law for emergencies in order to provide crews for patrols and auxiliaries, and fill battleship complements which have been depleted to supply gun crews to merchant ships.

2. In order to obtain what the General Board regards as the greatest measure of protection to American lives and American shipping on the high seas the General Board invites attention to its letter of March 20, 1917, G. B. No. 425, Serial No. 688, and to its previous letters of February 6, 1917, G. B. No. 425-1, Serial No. 553-b; February 17, 1917, G. B. No. 425-1, Serial No. 672; March 17, 1917, G. B. No. 425, Serial No. 683, on the same subject.

CHAS. J. BADGER.

In its special report of April 5, 1917, the day before war was declared, entitled "Assistance that United States can give Allies upon declaration of war," the General Board suggested, among the measures to be considered:

(a) Protect shipping proceeding to and from our ports from submarine or other attack.

(d) Should United States troops be sent to Europe, it will be necessary to escort the transports from shore to shore.

You see, even then, the General Board, in compliance with the policy of the time, was placing the extreme emphasis upon our troops. If we sent troops, they should be escorted from shore to shore; never any risk for them that could possibly be prevented. [Continuing reading:]

At present we are short of transports and convoying vessels, and cooperation in this duty with the Allies would be necessary.

(g) Mobilize the shipbuilding industries, both commercial and governmental, so that the energies of the Nation be extended in the directions needed to provide vessels to combat submarines, to escort merchant shipping, to replace shipping destroyed, and for other necessary additions to the fleet.

In another special report made the same day, April 5, recommending the detail of a commission of officers to Great Britain and France, the General Board recited, among the main points on which information was desired:

(e) Methods of patrol, escort, and convoy for the protection of both merchant shipping and naval forces against submarine and mine menace.

(h) Best methods and manner of cooperation and nature of service to be rendered by our forces, particularly in escorting merchant shipping.

The convoy system, as will be seen, was under consideration by the Navy Department before it was ever decided to send Sims to Europe. That was one of the things regarding which he was to get us full information.

BRITISH REGARDED "DISPERSION" AS BEST POLICY.

Admiral Sims did, soon after his arrival, inform us in detail regarding the methods in use by the British Admiralty. This disclosed that the Admiralty had not adopted the convoy system but "after trying various methods of controlling shipping," believed "the best policy to be one of dispersion." In his letter of April 19, 1917, his first mail report from London, Admiral Sims said:

Considerable criticism has been, and still is, concentrated upon the Admiralty for not taking more effective steps and for failing to produce more substantial and visible results. One of the principal demands is for convoys of merchant shipping and more definite and real protection in the war zone.

"It is insistently asked (was asked by myself)," he reported, "why shipping is not directed to and concentrated at various rendezvous and from these convoyed through the dangerous areas. The answer is the same—the area is too large; the necessary vessels are not available." He set forth in detail the many difficulties that would be encountered in inaugurating the system, the strenuous objection of merchant masters to convoy, and stated:

After trying various methods of controlling shipping, the Admiralty now believes the best policy to be one of dispersion.

DECLARED IMPOSSIBLE BY MERCHANT MASTERS AT ADMIRALTY CONFERENCE, FEBRUARY 23.

In his magazine article in the *World's Work* for October, 1919, describing his conversation on the subject with the first sea lord of the Admiralty, Admiral Sims says:

"The merchantmen themselves are the chief obstacle to the convoy," said Admiral Jellicoe. "We have discussed it with them many times and they declare that it is impossible. It is all right for war vessels to maneuver in close formation, they say.

for we spend our time practising in those formations, and so they think that it is second nature to us. But they say that they can not do it. They particularly reject the idea that when in formation they can maneuver their ships in the fog or at night without lights. They believe that they would lose more ships through collisions than the submarine would sink."

I was told that the whole subject had been completely thrashed out at a meeting which had been held at the Admiralty on February 23, 1917, about six weeks before America had entered the war. At that time 10 masters of merchant ships had met Admiral Jellicoe and other members of the Admiralty and had discussed the convoy proposition at length. In laying the matter before those experienced seamen, Admiral Jellicoe emphasized the necessity of good station keeping, and he described the close formation which the vessels would have to maintain. It would be necessary for the ships to keep together, he explained, otherwise the submarines could pick off the stragglers. He asked the masters whether it would be possible for 8 merchant ships, with a speed which varied perhaps 2 knots, to keep station in line ahead (that is, in single file or column) 500 yards apart, and sail in 2 columns down the channel.

"It would be absolutely impossible," the 10 masters replied, almost in chorus.

TRIED ONE EXPERIMENTAL CONVOY IN MAY.

Describing how the Admiralty, though still doubtful, decided to try the plan by one experimental convoy in May, Admiral Sims says:

On April 30 I received a message from Admiral Jellicoe asking me to come to the Admiralty. When I arrived he said that the projected study of the convoy system had been made and he handed me a copy of it. It had been decided to send one experimental convoy from Gibraltar. The Admiralty, he added, had not yet definitely decided that the convoy system should be adopted, but there was every intention of giving it a thorough and fair trial. That same evening at dinner I met Mr. Lloyd George, Sir Edward Carson, and Lord Milner, and once more discussed with them the whole convoy idea. I found the prime minister especially favorable to the plan. In general, civilians were more favorably disposed toward the convoy than seamen, because they were less familiar with the nautical and shipping difficulties involved.

Naval officers were immediately sent to Gibraltar to instruct the merchant masters in the details of assembling and conducting vessels. Eight-knot ships were selected for the experiment, and a number of destroyers were assigned for their protection. The merchant captains, as was to be expected, regarded the whole enterprise suspiciously, but entered into it with the proper spirit.

On May 20 that first convoy arrived at its English destination in perfect condition. The success with which it made the voyage disproved all the pessimistic opinions which the merchant sailors had entertained about themselves.

* * * * *

On May 21 the British Admiralty, now entirely convinced, voted to adopt the convoy system for all merchant shipping. Not long afterwards the second convoy arrived safely from Hampton Roads. Then other convoys began to put in from Scandinavian ports. On July 21 I was able definitely to report to Washington that "the success of the convoys so far brought in shows that the system will defeat the submarine campaign if applied generally and in time."

IN EXPERIMENTAL STAGE UNTIL JULY.

It will be observed from Admiral Sims's own account that it was not until July 21 that he was "able definitely to report to Washington" that the "convoy so far brought in" showed that the system had proved a success.

Admiral Sims's testimony and the dispatches he read might give you an idea that the convoy system was adopted by Great Britain in May, and that, in some way or other, the department "resisted" the system and prevented it from being put into effect until months later. The facts are that in the latter part of May the British dispatched one convoy, just to see if the plan would work, and that up to the end of June the system was still in its experimental stage.

That this was the case is shown by the following cablegram which Admiral Sims sent from London June 22:

To: Secretary of the Navy.
Sent: June 22.

The British Admiralty have now adopted the convoy system and will put it into effect as fast as ships can be obtained for high-sea convoy against raiders and destroyers for escort duty in submarine zone. As previously reported, convoys are in successful operation from Mediterranean and Hampton Roads. Plans are in hand for total of eight convoys a week, as follows: Two from Gibraltar, two from Hampton Roads, two or three from New York, one from Canada, the latter preferably being combined with the New York convoys. One a week from New York will be put into operation as soon as possible with British cruisers in absence of our support. I again urgently advise our full support assisting and cooperating in assembly of convoys and furnishing one cruiser or reserve battleship a week for high-sea escort. Reserve battleships are admirably suited for this duty, which will not interfere with personnel training, for which, I understand, they are now being used.

CRUISERS FURNISHED, CONVOY SYSTEM PUT INTO EFFECT.

A week after this dispatch was received I sent the following cablegram to Admiral Sims, stating that the department agreed to the Admiralty's request and would assign seven cruisers for convoy duty:

JUNE 30, 1917.

To: Vice Admiral Sims.

44. Referring to your previous cables. The department recognizes the urgent necessity of sending to European waters all antisubmarine craft possible and is using every effort to meet the demand. Five destroyers from Asiatic waters have been ordered to duty in European waters and will sail about August 1.

The department will meet the Admiralty's desire for the assistance of seven cruisers for convoy duty.

The following method for routing merchant shipping across the Atlantic is suggested for discussion with the Admiralty: That the Admiralty predict for each week ahead and nominate the days on which it will escort ships through the danger zone. That the Admiralty select the rendezvous at which it will meet and escort merchant shipping. That their instructions be cabled to their agents here. That the United States authorities, working in conjunction with the British agents here from the same office, direct all belligerent shipping to the rendezvous to fit the dates predicted by the Admiralty. That the make-up of the convoy at the points of rendezvous be arranged for by classifying ships according to speed, the alphabetical marking not to be evident to the enemy. That the United States authorities appoint the rendezvous for incoming vessels to United States ports in case the enemy submarine efforts on this side render escort in these waters a necessity.

It is believed this method has the advantage of not slowing up the flow of merchant tonnage across the Atlantic, while, except for protection against raiders, it meets most of the requirements of continuous convoy. It has the further advantage of making less demands on the allied coal supplies in European waters.

As Capt. Pratt has told you, we put the convoy system into effect in toto on July 5, and on that date Admiral Sims was informed that seven cruisers of the *Denver* class had been assigned to this duty, though we were convinced the plan we suggested would result in a better organization of transatlantic shipping than that in use. Admiral Sims's opposition to any change, though it might be an improvement, in the British system of routing shipping, to avoid delay we adopted Sims's recommendations and gave our full cooperation.

SIMS STILL WRITING OF ITS DIFFICULTIES JUNE 29.

As late as June 29, 1917, Admiral Sims wrote to me:

The difficulties confronting the convoy system are, of course, considerable. They are primarily involved in the widely dispersed ports of origin of merchant shipping, the difficulty of communication by cable, the time involved by communications by

mail, and the difficulties of obtaining a cooperation and coordination between allied Governments.

As reported by cable dispatch, the British Government has definitely reached the decision to put the convoy system into operation as far as its ability goes.

This was June 29, 1917.

Convoys from Hampton Roads, Canada, Mediterranean, and Scandinavian countries are already in operation. Convoys from New York will be put in operation as soon as ships are available. The British Navy is already strained beyond its capacity, and I therefore urgently recommend that we cooperate at least to the extent of handling convoys from New York.

Before this letter was received we had ordered cruisers to ocean escort duty and put the system into effect.

ONLY A FEW CONVOYS UP TO THAT TIME.

Admiral Sims's dispatches quoted above would give the idea that convoys had been for weeks operating regularly from the Mediterranean and America. But Admiral Niblack, who during most of the war was in charge of our forces at Gibraltar, through which one-fourth of the allied tonnage of the world passed, has told you that, while the first experimental convoy was sent from that port in May, it was not until July 27, 22 days after the United States had adopted the convoy system, that the next first regular convoy was dispatched from Gibraltar. He shows that it was not until July 22, 1917, that the Admiralty order was issued applying the convoy system to the Mediterranean.

Admiral Wilson, who was from August to November 1, 1917, in command at Gibraltar, and from November 1 until the end of the war in command of our forces in France, told you that, in his opinion, we "adopted the convoy plan in ample time." I quote the following from his testimony:

The CHAIRMAN. Do you not think if we had adopted the convoy system earlier it would have had a great effect in shortening the war?

Admiral WILSON. We adopted the convoy system in ample time, I think. I was in Gibraltar soon after the convoy system started, and do you know what the convoy from Gibraltar was? They went out sometimes with 20 or 30 ships for England. One little Coast Guard cutter at times was the sea escort for the convoy. When you have such small vessels as that, all that the escort did was to navigate the convoy up the coast.

The CHAIRMAN. But the testimony of others is that the convoy system was a very important system.

Admiral WILSON. Absolutely.

The CHAIRMAN. And that it had a great deal to do with the winning of the war.

Admiral WILSON. Absolutely.

The CHAIRMAN. And the testimony is that it was not adopted as soon as it might have been?

Admiral WILSON. How about England? She did not adopt it until long after the war started.

UNITED STATES VESSELS MADE CONVOY SYSTEM POSSIBLE.

Admiral Niblack has pointed out that, with the slow-moving cargo ships, "the virtue of the convoy system was entirely dependent upon the efficiency of the danger-zone escort at one of the terminal ports and not in the accompanying vessels during the voyage." The principal function, he said, of the man-of-war ocean escort was "to regulate the radio communication and prevent the ships from straggling."

United States destroyers were engaged in escorting convoys through the danger zone from the time the very first convoys were sent across the Atlantic. I wish to emphasize that—that United States destroyers were engaged in escorting convoys through the danger zone from the time the very first convoys were sent across the Atlantic. Admiral Sims himself has shown that it was the vessels we sent to Europe which made possible the putting into effect and successful operation of the convoy system. In the *World's Work* for October, 1919 (p. 617), Admiral Sims says:

I do not wish to say that the convoy would not have been established had we not sent the destroyers for that purpose, yet I do not see how it could have been established in any complete and systematic way at such an early date. And we furnished other ships than destroyers, for besides providing what I have called the modern convoy—protecting the compact mass of vessels from submarines—it was necessary also to furnish escorts after the old Napoleonic plan. It was the business of the destroyers to conduct the merchantmen only through the submarine zone. They did not take them the whole distance across the ocean—for there was little danger of submarine attack until the ships reached the infested waters. This would have been impossible in any case with the limited number of destroyers.

But from the time the convoys left the home port, say New York or Hampton Roads, there was the possibility of the same kind of attack as that to which convoys were subjected in Nelsonian days—that is, from raiders or cruisers. We always feared that German cruisers or raiders of the *Moewe* type might escape into the ocean and attack these merchant ships, and we therefore had to escort them across the ocean with battleships and cruisers, just as they did a century ago. The British did not have ships enough available for this purpose, and here again the American Navy was able to supply the lack; for we had a number of predreadnaughts and cruisers that were ideally adapted to this kind of work.

ALL SIMS'S CHARGES INCONSIDERABLE IN COMPARISON WITH GREAT WORK ACCOMPLISHED.

Mr. Chairman, in view of the fact that our destroyers were at work in escort duty in British waters as soon as the convoys were started, that it was our vessels at Queenstown, Brest, and Gibraltar, our cruisers going out with groups of ships from New York, Hampton Roads, and other points, that made the convoy-system possible, how can you credit Admiral Sims's charge that the Navy Department "resisted" the convoy system and delayed its adoption for months? There were differences of opinion among some of our naval authorities, as there were in the British Admiralty, as to the convoy system. There was in this country the same difficulty that was encountered in England in getting shipowners to sail their vessels in convoy, and this difficulty was increased in America by the fact that the Government at that time had no control over privately owned shipping. Some of our officers were not inclined to abandon the policy of armed ships sailing singly, which had with us proved its success, until the convoy system had passed the experimental stage.

But all the delays that Admiral Sims alleges—the cablegrams that he says made him "want to jump overboard"—all these together did not prevent or delay for any appreciable time the adoption or operation of the convoy system. Admiral Sims has told you how strenuously he urged its adoption by the British Admiralty. He was the representative of the Navy Department, and he could not have done this if the Navy Department had disapproved it. He was voicing the same views that weeks before had been expressed by the President and the General Board.

UNITED STATES VESSELS PERFORMED LARGE PROPORTION OF CONVOY DUTY.

In the operation of the convoy system United States vessels performed a service far in excess of their relative numbers in comparison with those of the Allies. The most important lines of traffic were from America to England and France, and from the Mediterranean to England, Queenstown, Brest, and Gibraltar were the bases for the escort ships that gave vital protection to the most important ocean traffic, and it was from these ports that the principal American forces operated.

Gibraltar gives, perhaps, the best example of the amount of duty performed by United States vessels in escorting cargo ships. Gibraltar, Admiral Niblack told you, "became the principal convoy port of the world, with about one-quarter of all the allied tonnage touching there to be formed up into cargoes in every direction." He was on the spot and he testified as follows—

The CHAIRMAN. This is a quotation from his testimony before this committee?

Secretary DANIELS. Yes; before this committee. This is what he said:

The date of the inauguration of the convoy system in the Mediterranean is when the British admiral on July 22, 1917, telegraphed to Gibraltar to commence collecting British and allied cargo ships with speed of between 7 and 11 knots bound for ports in the United Kingdom with a view to forming them into convoys, and on the 27th of July, 1917, the first regular convoy consisting of 14 ships with an ocean escort sailed from Gibraltar for the east coast of England, and thereafter these convoys sailed every four days from Gibraltar for ports on the east and west coast of England alternately, and sailed from England for Gibraltar at regular periods from Falmouth and Milford-haven.

The first American man of war for escort duty arrived in Gibraltar on August 6. As fast as our ships arrived they were assigned to duty with allied vessels as escorts to convoys and as danger zone escorts. The American ships differed from other nationalities based on Gibraltar in that other nationalities were employed almost exclusively in Mediterranean escort work, and Malta was the headquarters of the allied Mediterranean escort forces, whereas our forces undertook also practically all escort work in the Atlantic between Gibraltar and the United Kingdom. For instance, of the 225 convoys which sailed between Gibraltar and the United Kingdom during the entire war, 200 of them, of almost 90 per cent, totaling 4,629 ships and representing 12,000,000 gross tons, were escorted both ways solely by American escort ships from our forces based on Gibraltar. This point is important because it made my headquarters, Gibraltar rather than Malta.

There was a further reason for my being at Gibraltar because of the enormous number of unescorted American ships which arrived singly in Gibraltar from the United States. This has to do with the importance also of each ship having an armed guard on board, as this whole traffic was independent of the convoy system.

The total number of ships convoyed in local Mediterranean traffic by American forces amounted to about 4,245 ships bound for Mediterranean and Far Eastern ports, supplying the American Army through Marseilles, French forces in North Africa, allied forces at Saloniki, British forces in Egypt and Palestine, and the entire supply of Italy.

(Thereupon, at 12 o'clock m., the subcommittee adjourned until to-morrow, Friday, May 14, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

FRIDAY, MAY 14, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in room 235 Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

The CHAIRMAN. The committee will come to order. Will you proceed, Mr. Secretary?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. The outstanding service the Navy rendered during the World War was with reference to the transportation and safety of over 2,000,000 American soldiers to France. The arrangements for that service were jointly made in Washington by the Secretaries of War and Navy and trusted officers of both services. The carrying out of the plans was intrusted on this side to officers whose wise execution can not be too highly commended. The Army and Navy worked on this great task with the harmony and cooperation which characterized the two arms of the Republic's military service in all the varied lines of duty intrusted to them. As to the appreciation of the part the Navy played in this great undertaking greatly carried out, the officers of the Army have given generous and appreciated commendation.

Every transport carrying troops to Europe was convoyed. The 2,000,000 men arrived safely because of wise plans faithfully executed. As evidence of the early, I should say the immediate, whole-hearted work of the Navy in this greatest task of the Navy during the World War, I append this correspondence showing that in the very first days of the war the Navy's performance of duty was recognized:

JULY 3, 1917.

HON. JOSEPHUS DANIELS,
Secretary of the Navy.

MY DEAR MR. SECRETARY: Word has just come to the War Department that the last ships conveying Gen. Pershing's expeditionary force to France arrived safe to-day. As you know, the Navy assumed the responsibility for the safety of these ships on the sea and through the danger zone.

The ships themselves and their convoys were in the hands of the Navy, and now that they have arrived, and carried, without the loss of a man, our soldiers who are the first to represent America in the battle for democracy, I beg leave to tender to you, to the admiral, and to the Navy, the hearty thanks of the War Department and of the Army.

This splendid achievement is an auspicious beginning, and it has been characterized throughout by the most cordial and effective cooperation between the two military services.

NEWTON D. BAKER.

JULY 4, 1917.

HON. NEWTON D. BAKER,
Secretary of War.

MY DEAR MR. SECRETARY: The Navy accepts the thanks and gratitude of the Army as an expression of fraternal esteem rather than as any acknowledgement of sole achievement. The movement of the expeditionary forces, carried out with such complete success, was planned in joint conferences, and goes to the people as a proof of the effectiveness that lies in intimate cooperation between the two great military branches of the Government.

This generous concentration of activities is as thrilling a thing to me as the safe passage of our transports through the ocean lanes. With Army and Navy thinking as one, planning as one, fighting as one, the great purpose of America is expressed in terms of invincibility. In behalf of the men whose courage gave safe conduct to courage, I send to you the greetings of the Navy, awaiting in full confidence for the day when the valour of your soldiers will write new and splendid chapters in the heroic history of our liberty-loving land. You, who have shared with me the anxiety of these days of intolerable suspense, will know the full and happy heart out of which I write.

JOSEPHUS DANIELS.

WHAT GEN. PERSHING THOUGHT OF THE NAVY'S SERVICE.

Gen. John J. Pershing, writing under date of April 21, 1919, said:

We fully realize that had it not been for the Navy, who kept watch and guard night and day over our transport fleet, the American effort in France would never have been successful. The Navy's assistance was whole hearted and arduous, and was always given in a most generous spirit of cooperation.

Pershing added that "This backing and cordial cooperation existed throughout the war," from April 6, 1917, until the American Expeditionary Forces were brought home.

The commanding officer of the Army in France does not limit the Navy's effort or achievement to any particular period of the war, nor reflect upon its whole-hearted service "throughout the war." It is left for Rear Admiral Sims to unjustly, and without shadow of foundation, charge the Navy Department with responsibility for the loss of life and cargoes and with prolonging the war because the department at Washington did not instantly accept every recommendation he made and abdicate in his favor.

The CHAIRMAN. Will you please put in the record the whole of that letter of Gen. Pershing?

Secretary DANIELS. The whole of that letter; yes. Now, I come to the Naval Overseas Transportation Service.

Navy manned and operated 378 cargo vessels.

Transported 6,000,000 tons of supplies.

The Navy, during the war period, manned and operated a total of 450 cargo vessels, of 3,115,858 tons (dead weight). At the time of the armistice more than 100 additional vessels had been assigned to the Naval Overseas Transportation Service, which we were preparing to man, and many of them were in process of being taken over by the Navy. The largest number of vessels in operation by the N. O. T. S. at any one time was 378, totaling 2,397,578 tons. The aggregate tonnage of vessels assigned to the N. O. T. S. was 4,019,293 tons.

The magnitude of this service can be realized when it is stated that the Naval Overseas Transportation Service comprised more vessels than were in the prewar fleets of the Hamburg-American, North German Lloyd, and Cunard lines combined, and transported approximately 6,000,000 tons of supplies, munitions, and materials for the

Army, Navy, and Shipping Board. To man this large fleet required nearly 5,000 officers and 30,000 men, and many thousands more were being trained for this service when hostilities ended, as the Navy was preparing to man the hundreds of vessels under construction by the Shipping Board, many of which were nearing completion.

The Navy's big work in cargo transportation was the result of war demands, and was developed and expanded to meet the emergency.

What later became known as the Naval Overseas Transportation Service really dates back to March, 1917, when the department decided upon the policy of arming merchant ships for protection against submarine attacks, and the first Navy gun crews were ordered on March 12 to the steamship *St. Louis* and steamship *Manchuria*. In all, 384 cargo ships had crews furnished them by the Navy for manning guns and acting as signalmen and radio operators. Later, when the ships were taken over by the Navy, these armed guards were merged with the regular crews.

The next step in the formation of this service was the department's order of May 7, 1917, directing that all naval auxiliaries, which had previously been manned by civilian officers and crews, be placed on a naval status and manned by enlisted men. In the meantime every effort was being made by the department to enroll all desirable officers and men of the merchant service in the Naval Reserve, and considerable progress had been made along this line.

By this time there had been taken over and manned by Navy crews 16 small German vessels carrying cargo for the Navy.

The necessity of having Navy crews on all vessels passing through the war zone had frequently been urged upon the Shipping Board on account of difficulty with civilian crews in enforcing discipline and compliance with war regulations; and on December 15, 1917, official permission was given to take over the first Shipping Board ship, the *Deepwater*. In the meantime the Navy had taken over 6 large oil tankers. In December it had also taken over several vessels for the Army account, and the same month 29 lake vessels were taken over and fitted out as tenders to the mine-laying squadron.

By the end of 1917 the Navy had already acquired a large fleet of cargo ships, and the immediate prospect of having to greatly increase this number made it necessary to establish a new organization. The department issued an order January 9, 1918, establishing the Naval Overseas Transportation Service, with headquarters in the Navy Department and branches in all shipping ports to which vessels were to be assigned. Certain offices were created and their duties defined. The first Naval Overseas Transportation Service fleet was composed of 73 vessels to be operated with full Navy crews, of which 16 were for Army account, and 52 for Navy account. Five additional vessels were named to be placed in commission as soon as possible.

The organization proved to be smooth running and effective, and the fleet rapidly increased in numbers. The success and efficiency of this method of operating cargo vessels was so apparent that the Navy was requested finally, by both the Army and the Shipping Board, to take over and man all these vessels in military or supply service.

During the war there were operated by the Naval Overseas Transportation Service 450 vessels, with a tonnage of 3,115,858 dead-

weight tons. At the time of the armistice more than 100 additional vessels were in process of being taken over, making a total of 4,019,293 tons. The largest number of vessels in actual operation at one time was 378, with a capacity of 2,397,578 tons.

Cargo vessels manned and operated by the Navy carried overseas approximately 6,000,000 tons of supplies for the Army, Navy, and Shipping Board, divided as follows:

For the American Expeditionary Force, 3,102,462 tons of supplies; for naval bases, 1,000,000 tons of supplies, exclusive of coal; for American Fleet and other war purposes, 1,348,177 tons of coal; for Army and Navy, 704,000 tons of fuel oil and gasoline; for the Allies, 359,627 tons of food.

All the mines used in the North Sea barrage, 82,000 complete units with anchors, were carried on N. O. T. S. vessels.

Ninety-six thousand tons of coal were transported from Cardiff to Brest for the American Expeditionary Force.

Fifteen thousand animals were transported in October and November, 1918.

New England's fuel shortage was alleviated by N. O. T. S. vessels, which hauled and released large quantities of coal stored at naval supply bases on the Atlantic Coast.

The British Government was assisted in maintaining an adequate coal supply at Halifax, Bermuda, Trinidad, and St. Lucia. Billet steel was carried for the French Government. Military stores were transported for the Italian Government.

The personnel necessary to operate this great fleet at the time of the armistice consisted of 4,647 officers and 29,175 men as follows:

	Officers.	Men.
Afloat.....	4,158	28,047
Ashore.....	514	1,128

Almost the entire personnel of the N. O. T. S. enlisted during the war, about 18,000 in the regular Navy and 11,000 in the reserves. Of the commissioned officers, only 12 were regulars.

As the number of licensed officers in the merchant service was only a small proportion of those needed, it was necessary to train officers. To this end deck officer schools were established by the Navy at Pelham Bay Training Camp, N. Y., and at Municipal Pier, Chicago, and an engineer officer school at Stevens Institute, Hoboken, N. J. There was also established a school for turbine engineers at Carnegie Institute, Pittsburgh. Nearly four-fifths of the N. O. T. S. officers were graduates of these schools and got their first sea experience during the war.

To operate successfully the various necessary activities in connection with the Naval Overseas Transportation Service there was established in each port an organization competent to handle personnel, supplies and repairs. Storage warehouses, piers, docking and repair facilities on a large scale were required, as well as tow boats and barges. Supplies of all kinds, including coal, fuel oil, repair material, etc., had to be constantly kept on hand so that no vessel need be detained in port beyond the loading period. As nearly every vessel taken over, whether new or old had to be remodelled in many essen-

tial features to meet Navy requirements, it will be seen that the local organization had no easy task, particularly as these changes were made, so far as possible, without delaying the loading of the vessel.

In view of the magnitude of the task and the many obstacles to be overcome, the Naval Overseas Transportation Service made a record that would be difficult to equal.

The manning of cargo vessels was a new service for the Navy and one not previously contemplated, and the creation of this vast fleet and its operation with such efficiency and success was one of the notable achievements of the war. I have here a list of the vessels in the Naval Overseas Transportation Service, and it is one of the most remarkable services that the Navy performed, and it performed it with such efficiency as to win the commendation and the admiration of all the services, and everybody who knew anything about it.

Senator TRAMMELL. N. O. T. S. means Naval Overseas Transportation Service?

Secretary DANIELS. Naval Overseas Transportation Service; something that never had been conceived by any naval officer in the past that the Navy would be called upon to do.

(The list is as follows:)

Absaroka.	Cape Romaine.	El Capitan.
Agwidale.	Carib.	El Occidente.
Alaskan.	Carolinian.	El Oriente.
Alloway.	Carrillo.	El Sol.
Ama'ala.	Casco.	Einor.
American.	Cauto.	Eurana.
Aniwa.	Celebes.	Evansville.
Antilla.	Caesar.	Fairmount.
Arzonne.	Calamares.	Federal.
Arizonan.	Celtic.	Fort Wayne.
Artigas.	Culgoa.	Herman Frasch.
Astoria.	Cuyama.	Fresno.
Auburn.	Challenger.	Frieda.
Ausable.	Charlton Hall.	Gargoyle.
Alpaco.	Chatam.	Glen White.
Bali.	Chelaulip.	Gold Shell.
Banago.	Chestnut Hill.	Gorontalo.
Bath.	Chinampa.	Glacier.
Batjan.	Choctaw.	Guantanamo.
Bavaria.	Clare.	J. M. Guffey.
Baxley.	Cohasset.	Gulfport.
Bella.	J. M. Connelly.	Hatteras.
Beaufort.	Corozal.	Hawaiian.
Bellingham.	Craster Hall.	George Henry.
Berwyn.	Peter H. Crowell.	Hickman.
Besoeki.	Dakotan.	Hilton.
Beukelsdijk.	Defiance.	Hisko.
Biesloch.	Democracy.	Houma.
Bridge.	Dochra.	Hoven.
Broad Arrow.	E. L. Doheny III.	Houston.
Frank H. Buck.	Drechterland.	Howick Hall.
Buena Ventura.	Durham.	Hoxbar.
Buitenzorg Bassum.	Eastern Chief.	Ice King.
Cacique.	Easterner.	Independence.
Californian.	Eastern Light.	Indianapolis.
Camden.	Eastern Queen.	Invincible.
Canibas.	Eastern Shore.	Iowan.
Canton.	Eastport.	Isabella.
Cape Henry.	Edenton.	Isanti.
Cape Lookout.	Edgemont.	William Isom.
Cape May.	Edith.	Jupiter.

Jan Van Nassau.	Lake Shore.	Nereus.
Jean.	Lakeside.	Nantahala.
Stephen R. Jones.	Lake Silver.	Neponset.
Jason.	Lake St. Clair.	Nero.
Kamesit.	Lake St. Regis.	Newburgh.
Keresan.	Lake Sunapee.	Newport News.
Keresas pa.	Lake Superior.	Newton.
Kerakenna.	Lake Traverse.	Noord Brabant.
Kerlow.	Lake Tulare.	Norlina.
Kermanshah.	Lake Views.	North Pole.
Kermoor.	Lake Weston.	Oakland.
Kerowlee.	Lake Wimico.	Ohioan.
Kerwood.	Lake Winooski.	Oosterdijk.
Kiowa.	Lake Wood.	Ophir.
Kittery.	Lake Worth.	Oregonian.
Kanawa.	Lake Yahara.	Oskaloosa.
Konigen der Nederlanden.	Lake Ypsilanti.	Oskawa.
Lake Arthur.	Lancaster.	Ozama.
Lake Benbow.	Levisa.	Ozaukee.
Lake Berdan.	Liberator.	Orion.
Lake Blanchester.	Liberty.	W. M. Page
Lake Bloomington.	Los Angeles.	Peerless.
Lake Borgne.	Fdgar F. Lucken.	Pensacola.
Lake Bridge.	Long Beach.	Pequot.
Lake Capens.	Edward Luckenbach.	Piave.
Lake Catherine.	F. J. Luckenbach.	Pleiades.
Lake Champlain.	Fredk. Luckenbach.	Plymouth.
Lake Charlotte.	Julia Luckenbach.	Point Bonita
Lake Clear.	Katrina Luckenbach.	Point Lobos.
Lake Conesus.	K. I. Luckenbach.	Polar Bear.
Lake Crescent.	Walter L. Luckenbach.	Polar Land
Lake Damita.	Luella.	Polar Sea.
Lake Dancy.	Lydia.	Polar Star
Lake Baraga.	Mars.	H. L. Pratt.
Lake Dymmer.	Maartensdijk.	Proteus.
Lake Eckhart.	Macona.	Quevilly.
Lake Elizabeth.	Major Wheeler.	Quincy.
Lake Elike.	Malang.	Panaman.
Lake Elsinore.	Manta.	Panuco.
Lake Erie.	Mariana.	Pasadena.
Lake Fernwood.	Marne.	Pascagoula.
Lake Forest.	Mauban.	Refrigerator.
Lake Francis.	Wm. A. McKenney.	Radnor.
Lake Gakona.	Merauke.	Randwijk.
Lake Garza.	Mercer.	Rappahannock.
Lake Gaspar.	Mercurius.	Rijnland.
Lake Gedney.	Mexican.	William Rockefeller.
Lake Geneva.	Middlesex.	Roepat.
Lake Harney.	Minnesotan.	Rogday.
Lake Harris.	Moccasin.	Rondo.
Lake Helen.	Moldegard.	Saccarappa.
Lake Huron.	Montclair.	Sac City.
Lake Larga.	Montoso.	Sagadahoc.
Lake Lasang.	Morristown.	St. Francis.
Lake Lemando.	Mount Shasta.	Samarinda.
Lake Lillian.	Munaires.	Santa Barbara.
Lake Mary.	Munalbro.	Santa Clara.
Lake Michigan.	Mundelta.	Santa Lucia.
Lake Moore.	Munindies.	Santa Olivia.
Lake Ontario.	Munplace.	Santa Paula.
Lake Osweya.	Munrio.	Santa Rosalia.
Lake Otisco.	Munsomo.	Santiago.
Lake Pepin.	W. D. Munson.	Satsuma.
Lake Pewaukee.	Munwood.	M. J. Scanlon.
Lake Placid.	Muscatine.	Scranton.
Lake Pleasant.	Maumee.	Seatia.
Lake Port.	Naiwa.	Severance.

Sioux.	West Avenal.	West Gate.
Sixaola.	West Bridge.	West Gotomska.
Jeannette Skinner.	West Carnifax.	West Grama.
Soesdijk.	West Chester.	West View.
South Pole.	West Coast.	West Wauna.
Standard Arrow.	West Cobalt.	West Wood.
Sagua.	West Cohas.	West Zeda.
Tanamo.	West Compo.	West Zucker.
Felix Taussig.	West Corum.	West Zula.
Teresa.	West Cressey.	Westerdijk.
Ternate.	West Ekonk.	Western Ally.
Texan.	West Elcajon.	Western Belle.
R. M. Thompson.	West Elcasco.	Western Chief.
Lewis K. Thurlow.	West Eldara.	Western Comet.
Ticonderoga.	Westford.	Westerner.
Tiger.	West Galeta.	Western Front.
Tivives.	West Galoc.	Western Hope.
Tjikembang.	West Haven.	Western Light.
Tjisondari.	West Hobomac.	Western Maid.
Topila.	West Hosokie.	Western Ocean.
W. L. Steed.	West Humhaw.	Western Plain.
Sterling.	West Indian.	Western Sea.
Sudbury.	West Kyska.	Western Spirit.
Sylvan Arrow.	West Lashaway.	Western Star.
Veendijk.	West Lianga.	Westward Ho.
Victorious.	West Loquassuck.	Wieldrecht.
Vittorio Emmanuelle I.	West Madaket.	Williamantic.
Volunteer.	West Mohamet.	Winding Gulf.
Vulcan.	West Mead.	Winifred.
Wabash.	West Mount.	Winnebago.
Wachusett.	Westover.	Winterswijk.
Wakulla.	West Point.	Yellowstone.
Wassaic.	West Pool.	Zaanland.
Wathena.	West Port.	Zaca.
Watonwan.	West Shore.	Zirkel.
West Alsec.	West Gambo.	Zuiderijk.
West Apaum.		

ALLEGED PROLONGATION OF THE WAR AND ALLEGED UNNECESSARY LOSS OF 5000,000 LIVES.

Early in his testimony Admiral Sims furnished the committee with an "Estimate of unnecessary loss of lives, tonnage, and wealth suffered by the allied cause and by the United States by dilatory policy of Navy Department during the first six months of the war."

I am quoting his words and not my own, because I wish to emphasize the fact that his words have no basis of foundation in fact whatever. He charges that due to the shortcomings of the United States Navy there was an unnecessary loss of 2,500,000 tons of shipping, resulting in postponing the end of the war "at least four months." Admiral Sims says:

The average loss of life per day to the Allies during the war was 3,000 men. This prolongation of the war, therefore, cost half a million lives, similarly, as the war cost the Allies \$100,000,000 a day on the average; this prolongation resulted in the unnecessary expenditure of \$15,000,000,000, of which at least one-third was expended by the United States directly or loaned to the Allies.

This is practically the only charge made by Admiral Sims of unfavorable results from the many alleged sins of omission and commission of the Navy Department. Practically all the rest of his statement of over 200,000 words is academic as regards the effect upon the war of what was alleged to be done or left undone. The charge of the pro-

longation of the war, however, is a definite and serious one; it is made with reckless disregard of the facts and the reasoning and statistics adduced in its support are those which one might expect to find in the fantastic tales of a Baron Munchausen or the statistics of a Colonel Mulberry Sellers.

Even in making the charge quoted above Admiral Sims disregards his own alleged facts. He gives the average loss of life per day to the Allies as 3,000 men, and figures that with the four months' prolongation this would result in a loss of half a million lives. The loss of 3,000 men a day for four months falls far short of half a million even if the months were all of 31 days; but of course half a million sounds more impressive than the figure which would have been arrived at by correct arithmetic. In support of his charge Admiral Sims says:

The tonnage losses of 1917 made it impossible at the time to transport any considerable American Army and, at the same time, continue the absolutely essential military supplies and food for the civil populations of the Allies' countries. It therefore became necessary to limit the number of American troops that could be sent abroad during the first year to an average of approximately 25,000 men per month. If the additional million and a half tons sunk unnecessarily in 1917 had been saved by the prompt cooperation of our Navy, the number of American soldiers sent to France could have been doubled or trebled. If the tonnage had been available and the additional American troops had been sent to France, and the new drafts called more promptly in this country, America could have had a million men in France by March, 1918, instead of 300,000.

Admiral Sims then goes on to reason that if there had been a million American soldiers in France by March, 1918, the war would have ended four months sooner. It is not necessary to follow him into this realm of speculation, nor is it necessary so far as his statement is concerned, to go into the real reasons, not mentioned by him, why there were not a million American soldiers in France by March 1, 1918.

Admiral Sims above ascribed this wholly to the tonnage losses of 1917, which he claimed made it "impossible to transport any considerable American Army," etc. He does this because these alleged tonnage losses of 1917 are ascribed by him wholly (though erroneously) to the shortcomings of the American Navy, thus completing the chain by which he attempts to fix on the American Navy blame for four months prolongation of the war. It is not necessary to wander far into the realm of statistics or technical questions to show the absolute fallacy of Admiral Sims's claim outlined above. He informed the committee that the net tonnage available for the Allies May 1, 1917, was 27,000,000 tons. It is a matter of common knowledge that on May 1, 1918, the tonnage was less than on May 1, 1917. Testimony given by Admiral Sims would indicate that the net loss during the year was about 2,000,000 tons. This is probably a sufficiently close estimate for practical purposes. Now then, owing to the tonnage losses of 1917 and the early part of 1918, the net tonnage available to the Allies had been reduced from 27,000,000 on May 1, 1917, to 25,000,000 on May 1, 1918. Yet it is a matter of common knowledge admitted by Admiral Sims, that in the spring of 1918, American troops were transported to France at the rate of nearly 300,000 a month, or more than ten times the rate to which he said transportation had been restricted in 1917 because of the destruction of tonnage. This simple fact refutes absolutely Admiral Sims's statement that the tonnage losses of 1917 made it "impossible to transport any considerable American Army" and "necessary to limit the number

of American troops that could be sent abroad during the first year to an average of approximately 25,000 men per month."

There might be some excuse for Admiral Sims thinking, in 1917, that things were impossible which were afterwards done in 1918. Certainly he has no excuse and no warrant of facts for charging in 1920 that things were impossible in 1917 because of the reduction of tonnage which were done in 1918 with the reduced tonnage. They were done with difficulty, it is true, but they were done.

While it is presumably without the scope of this committee to go into questions affecting the Army and the many very good reasons having no connection with tonnage, why there were not a million American soldiers in France on March 1, 1918, in view of the specific statement of Admiral Sims ascribing this entirely to lack of tonnage, and the fact that in cross-examination he said he knew nothing about Army matters or the conditions in the Army, and based his allegations entirely upon reports of distinguished Army officers as to shortage of tonnage—

Senator PITTMAN. Excuse me, Mr. Secretary; you attribute there to Admiral Sims's testimony that he bases his allegations upon reports of distinguished Army officers. That does not agree with my recollection of his testimony, which I will call your attention to on cross-examination.

Secretary DANIELS. All right.

Senator PITTMAN. I think he limits his opinion on the subject to the official report of Gen. Pershing.

Secretary DANIELS. Yes, he did; that is right. He attributed it entirely to that. I ought to have said "a distinguished Army officer." I will change it to that, "a distinguished Army officer," and say, in view of the specific statement of Admiral Sims ascribing this entirely to lack of tonnage, and the fact that in cross-examination he said he knew nothing about Army matters or the conditions in the Army, and based his allegations entirely upon the report of a distinguished Army officer as to shortage of tonnage, I may remark that as a result of constant conference and intimate association during the critical time of the war, between the Secretaries of War and Navy and high responsible officers of the two departments, I did have knowledge of the difficulties encountered and superbly overcome by the Army during that period. In the first place, the shipment of American troops to France in large numbers during 1917 and the greater part of 1918 was dependent entirely upon the allocation of tonnage to the United States from the Allies. The interned German vessels taken over by the Government and assigned to Army service were put in service by the end of 1917, and there was during 1918 a steady growth of Army and Navy transports under the American flag; but the transportation of men in large numbers up to the summer of 1918 was and could be possible only by the allocation of tonnage from the Allies.

The United States made every effort to increase its troop-carrying capacity by obtaining from the Allies available vessels suitable for this purpose and also the necessary cargo tonnage. Not until the development of the serious situation in March, 1918, however, were the Allies willing to allocate the necessary tonnage to the United States. The question of tonnage, however, was not the only factor

as regards the Army in France. To handle and supply the great American Army an enormous amount of work had to be done in France.

When we entered the war the ports and railroads of France were crowded with traffic and had fallen into disrepair. The turn around of transports and cargo vessels was at no time satisfactory during 1917, because of inadequate port and shore facilities, and it was only after the American Army had built new ports, warehouses, dock equipment, nearly a thousand miles of new railroad trackage, new switching facilities to crucial points, new repair shops and round-houses, and supplied new rolling stock that vital munitions and supplies could be landed and forwarded to the front for an army of any size. I wish to emphasize that as of the highest importance. By the spring of 1918 the enormous work undertaken by the Army in providing facilities essential to enable a large American Army to operate in France was showing results. The cargo-handling capacity in French ports available for us, for instance, had reached 10,000 tons per day in the spring of 1918; it was trebled before the armistice, reaching 30,000 tons per day.

My understanding is that, broadly speaking, there was always tonnage to carry men, munitions, and supplies as fast as they could be landed and forwarded to the front in France, and that only by extreme exertions was this done when the rush of troops came in April. Even had the Allies been willing to release the necessary tonnage earlier the port and inland transportation facilities would not have warranted our sending many more soldiers to France before March 1, 1918.

As a matter of fact, the American Army materially shortened the war. It got to the front as soon as it was humanly possible, not by chance, but as a result of careful plans involving complete cooperation between the Army and the Navy which was brilliantly carried out.

As regards the length of the war, Field Marshal Sir Douglas Haig, in a report made by him on April 8, 1919, said:

If the causes which determined the length of the recent contest are examined in the light of the accepted principles of war, it will be seen that the duration of the struggle was governed by and bore a direct relation to certain definite factors which are enumerated below.

In the first place—

He is speaking, of course, of Great Britain as well as the other Allies—

We were unprepared for war, or at any rate for a war of such magnitude.

Of his own country, he is now speaking.

We were deficient in both trained men and military material and, what was more important, had no machinery ready by which either men or material could be produced in anything approaching the requisite quantities.

Second, the consequence of our unpreparedness was that our armies were unable to intervene—

Listen to this, gentlemen—

The consequence of our unpreparedness was that our armies were unable to intervene either at the outset of the war or until nearly two years had elapsed in sufficient strength adequately to assist our allies.

A further cause adversely influencing the duration of the war on the western front during its later stages, and one following indirectly from that just stated, was the situation in other theaters. The military strength of Russia broke down in 1917 at

a critical period when had she been able to carry out her military engagements, the war might have been shortened by a year.

Thirdly, the Allies were handicapped in their task and the war thereby lengthened by the inherent difficulties always associated with the combined action of armies of separate nationalities, differing in speech and temperament, and not least important, in military organization, equipment and supply.

Finally, as indicated in the opening paragraph of this part of my dispatch, the huge numbers of men engaged on either side, whereby a continuous battle front was rapidly established from Switzerland to the sea, outflanking was made impossible and maneuver very difficult, necessitated the delivery of frontal attacks.

It will be observed, gentlemen, that Marshal Haig states specifically that the British armies were unable to intervene until nearly two years had elapsed "in sufficient strength adequately to assist our Allies." The war was over not two years, but 19 months after the United States entered it, and no man could deny that within 15 months after our entry, the American Army was in sufficient strength on the battle front "adequately to assist the Allies." Yet the American Army had to be transported and supplied across 3,000 miles of ocean in the face of a supreme effort of the German submarine, and then across the width of France, while Great Britain was within the sound of the German guns. Let me quote from the report of the Chief of Staff to the Secretary of War for the fiscal year ended June 30, 1919. The Chief of Staff of the Army says:

When German submarines appeared off the Atlantic coast with the obvious purpose of delaying our shipping program, pressure was brought to bear on the department, not only from within this country but from our Allies who were cooperating in furnishing the shipping, to modify the program by changing the embarkation points to Canada. Realizing that the German military authorities appreciated the inevitably decisive effect of the continuation of the shipping program and having entire confidence in the effectiveness of the measures adopted by the Navy to protect the convoys of our troops, I declined to accede to the suggestions that any steps be taken which would result in any retardation of our shipment of troops to France. It is of interest to note in this connection that no United States transport was sunk on an eastern voyage during the period referred to.

I have only touched briefly in the above upon matters affecting the Army, but I trust I have made clear what is the fact, what any thorough investigation will disclose to be the fact, and what history will record as the fact, that in the World War the American Army did not waste or lose a day in the stupendous task of bringing America's man power to bear decisively upon the western front, that the American Navy never in any respect failed the American Army in its cooperation and assistance in this great task and that neither the American Army nor the American Navy can be justly charged with responsibility for prolonging the war one day.

Having boldly claimed in his printed statement to the committee that it was "impossible" to transport troops, etc., in 1917 because of loss of tonnage, Admiral Sims later, under questioning, seemed to shift his ground by claiming that it was inexpedient to transport troops in 1917 because the destruction of tonnage going on rendered the future uncertain. He said, on March 3:

If we could have seen ahead a year, and could have been sure that we were going to arrive at a position where the increase in the building of tonnage surpassed the destruction, we could have taken the action in 1917 which we did take in March or April, 1918, and succeeding months, but which we would not have dared to take and which it would not have been prudent to take in 1917. I do not know whether that is clear or not.

It appears, then, that Admiral Sims, in cross-examination, modified his statement that it was "impossible" to transport troops in 1917 because of losses of tonnage, to a claim that it was not "prudent." That is a very different position. But Admiral Sims himself has refuted his claim of impossibility very completely. On March 3, in answering the question of the chairman, he said:

And, anyway, it seems to me that as we actually demonstrated, after the month of April, immediately after the month of April, 1918, that we could send over 300,000 a month and keep it up until there were certainly a million there, it makes it perfectly certain that in the six months preceding, we could have done pretty much the same thing if we had had the tonnage; but we did not have the tonnage.

When we consider this statement of Admiral Sims in connection with the fact stated by him that the tonnage available to the Allies was less immediately after the month of April, 1918, than it was in 1917, the fallacy and groundlessness of his claim, that the destruction of tonnage rendered it impossible to transport out troops to France and thereby prolong the war four months, is obvious.

I come now to the question of the alleged unnecessary destruction of tonnage. Here again Admiral Sims's ascription of the unnecessary loss of 2,500,000 tons to the shortcomings of the American Navy is wholly fallacious. I quote below Admiral Sims's remarkable allegation in this connection:

With the adoption of the convoy system and the antisubmarine measures put into effect by the Allies with our assistance in 1917, the losses were gradually reduced until in October, 1918, they amounted to only 100,000 tons. The period between the beginning of the German unrestricted submarine campaign and the armistice can be divided into three phases so far as losses of merchant tonnage are concerned.

First. The period from February 1, 1917, to the end of July, 1917, when American aid was lacking and when shipping was not being convoyed. Average losses, 640,000 tons per month.

Second. The period of August 1, 1917, to February 1, 1918, when there was a partial employment of the convoy system and moderate assistance from America. Losses, 390,000 tons per month.

Third. The period from February 1, 1918, to the armistice, when full cooperation was given by America, and consequently full use could be made of the convoy system. Losses, 250,000 tons per month.

As will be noted, each of these successive phases of the unrestricted submarine campaign is marked by the degree of naval cooperation received from America. An analysis of the situation, therefore, shows that if the United States Navy had been prepared for war when war began, and if the whole-hearted policy of cooperation with the Allies had been followed from the beginning, the first mentioned above would have come to an end within a month after we entered the war; that is, by May 1, 1917. The second period would probably have ended by August 1, as by that time the full weight of our cooperation would probably have been felt. An estimation of the amount of tonnage that would have been saved shows, therefore, that, if the first period had ended on May 1 and the second period on August 1, 1917, 1,500,000 tons of shipping would have been saved to the Allies in 1917. Similarly, at least another million tons would have been saved in 1918.

It can thus be said that the failure of the Navy Department to enter the war immediately and whole heartedly cost the allied cause as a whole 2,500,000 tons of shipping sunk unnecessarily. While this is, of course, an estimate only, it is based upon actual results obtained when our help became effective, and there is no reason to doubt that it is a conservative estimate.

Admiral Sims, starting from the beginning of the unrestricted submarine campaign on February 1, 1917, alleges that for the first six months the destruction was at the average of 640,000 tons a month; for the second six months, 390,000; and thence to the armistice, 250,000 tons a month. He claims that if the United States Navy had been prepared for war when war began, and if whole-hearted

cooperation with the Allies had been followed from the beginning, the first period would have ended in a little over three weeks after we entered the war, and the second period would have ended by August 1, 1917. I am not going to undertake to analyze his allegations from a technical point of view; that has been thoroughly done by others. I am simply going to point out the inaccuracy in the present allegations themselves and the fact that they are absurd in view of statements made by Admiral Sims in other places. It will be noted that Admiral Sims admits in the above that from February 1, 1918, to the armistice "full cooperation was given by America," and claims that this period of full cooperation should have been reached by August 1, 1917, instead of on February 1, 1918. However, even Admiral Sims appears to admit that there was full and complete cooperation from the American Navy from February 1, 1918, or practically during the whole of 1918; and yet, included in Admiral Sims's two and a half million tons of unnecessary destruction, is a million tons, or 40 per cent of his total charged by him against the United States Navy in 1918, in the face of his own statement that during that period "full cooperation was given by America." Such claims pass my understanding. The most remarkable feature of Admiral Sims's claims with regard to tonnage losses, however, is not the 40 per cent of losses ascribed to the American Navy at the time when Admiral Sims himself admits there was full cooperation.

It will be observed that in his statement quoted above he ascribes the total reduction of losses to the American cooperation, or perhaps I should say failure to reduce losses entirely to the lack of American cooperation. It is interesting to compare this position with Admiral Sims's reports at the time in September, 1917. For instance, on March 23 he said:

On the 11th of September I wrote a letter to the Navy Department, of which I will quote a paragraph here. [Reading:]

"With reference to the antisubmarine campaign, generally speaking, the losses since April have not increased, but, on the contrary, appear to be on the decrease. This, coupled with the fact that the number of submarines operating, has, if anything, increased, is difficult to explain. There is considerable difference of opinion as to the causes for the above. The most reasonable opinion as to decrease in submarine losses and upon which there is the greatest degree of unanimity is as follows:

"(a) The gradual extension of the convoy system, together with increased experience of both the merchant shipping and escorting craft.

"(b) Increase of antisubmarine craft and constant increase of experience thereof, coupled with the more extensive use of the depth charge.

"(c) Effect on enemy submarine morale from the above and particularly from the more extensive use of depth charges. It is wholly impossible to estimate the number of actual submarine losses caused by depth charges, but the fact that depth charges are used liberally whenever a submarine is encountered, unquestionably has a marked effect upon morale.

"(d) Difficulty the enemy must be experiencing in maintaining an adequate supply of efficient torpedoes."

Admiral Sims now ascribes the reduction of destruction from 640,000 tons per month prior to August 1, 1917, to 390,000 tons a month for six months after August 1, 1917, entirely to American action. Yet when reporting to the Navy Department on the 11th of September, 1917, "the most reasonable opinion as to decrease in submarine losses," he does not mention specifically American action, and there was no factor mentioned which does not apply to all of the Allies as well as to the American Navy.

When we consider the effect of American cooperation Admiral Sims admits that the quality of the work done by that portion of the American Navy in European waters was of the highest. Now, of course, the effect of American assistance would depend not only upon its quality but upon its quantity. Admiral Sims is fully on record as regards this matter. I quote from the record of March 23:

Senator TRAMMELL. Did you state in a speech in London on October 10, 1918, as follows?

"Another idea was sometimes in the American mind, that the American Navy had been doing the bulk of the business over here—at least a half. That was not correct. There were about 5,000 antisubmarine craft operating day and night, and the American craft numbered 160, or 3 per cent. The figures were about the same in the Mediterranean. Again, Americans seemed to regard it as a miracle of their Navy that they had got a million and a half troops here in a few months and had protected them on the way."

"We didn't do that," said Admiral Sims. "Great Britain did. She brought over two thirds of them and escorted one-half. We escorted only one-third of the merchant vessels that came here."

Do you remember that?

Admiral Sims. Yes. All those statements are substantially correct, if you take the effective craft. I eliminated from that the little sub. chasers that were sent there, and all escorts of small craft, and ships like that, in ports, etc.

Apparently when Admiral Sims was preparing percentages to show what credit should attach to the American Navy he eliminated from the American forces certain kinds of vessels—and I wish you to bear this in mind, gentlemen—which were unquestionably included by him in figuring the British forces. Fortunately Admiral Sims has testified specifically as to the effectiveness of American forces. He said:

Anybody who takes the ground that the delay of the United States in going into the war was not responsible for certain losses must assume that the naval intervention of the United States was not effective. And I do not assume that. I assume that the United States intervention was effective, and fully effective in proportion to the number of forces we sent over.

The record is perfectly clear, then, that Admiral Sims maintains our forces sent to Europe were "effective in proportion to the number of the forces we sent over," and he has claimed that all the force we sent over was only 3 per cent of the total. This percentage is not that at the time when Admiral Sims maintains the American Navy was doing less than it should, but at the time when he himself admits it was doing all that was possible. He has no complaint to make of what was done after the first six or eight months we were in the war, but this speech in London was on October 10, 1918—18 months after our entry into the war—and on February 10, 1920, before this subcommittee, when discussing the award of medals in the naval service, Admiral Sims (p. 661 of hearings) said:

I remember the first contingent of newspaper reporters that came over to the other side at the invitation of the Government. They were entertained at a luncheon by the minister of information, and I was asked if I would make the customary few remarks. Well, I took pains to ask those gentlemen, before I made those remarks, to give me individually and estimate as to how many of the submarines they supposed were operating to the westward of the British Islands each day. The smallest estimate was 50, and the biggest estimate was 150, and when I told them that there were 8 or 9 to the west of the British Islands, they were astonished.

I also asked them, "What proportion of the antisubmarine forces of the Allies, particularly around the British Islands, do you suppose constitutes the American force?" Well, they thought 15, 20, 30, 40 or 50 per cent, and they were shocked when I told them it was only 3 per cent. And those figures were accurate, because I did the sum myself.

Referring to the antisubmarine craft around the British Islands, and the number that they had there, they were quite accurate. It is quite true we had more later we had 317. That is what I call a small number. You will find the per cent is small; It runs to 5, 6, or 7 per cent.

It appears, then, that when it is a question of giving credit to the American Navy for the antisubmarine force it supplied during the late war, Admiral Sims ascribes to it a pitiful 3 per cent, or by a great concession, 5, 6, or 7 per cent. When, however, it is a question of discrediting the American Navy by alleged failure to reduce the destruction of tonnage, Admiral Sims ascribes to it a 100 per cent responsibility. Further comment is superfluous, and I will now pass to other matters, with the remark that I am completely at a loss to understand how any man of Admiral Sims's ability could seriously put forward such baseless charges. His charges that the American Navy was responsible for prolonging the war four months and two and one-half million tons unnecessary destruction of tonnage are fully refuted by his own statements, or fully disproved by facts of common knowledge.

ADMIRALS ANSWER SIMS'S CHARGE THAT THE NAVY PROLONGED THE WAR.

The distinguished officers who had charge of our most important activities during the war have indignantly repudiated Admiral Sims's charge that the Navy Department, by alleged unpreparedness and delays, prolonged the war four months, causing the loss of 2,500,000 tons of shipping, 500,000 lives, and the needless expenditure of \$15,000,000,000. One after another declared that nothing the Navy Department did or did not do delayed the winning of the war one week or one day.

"NOT ONE PARTICLE OF TRUTH IN THAT STATEMENT," ADMIRAL RODMAN'S OPINION.

Admiral Rodman, who commanded the United States battleships which for a year operated with the British Grand Fleet, told you, "I do not believe there is a particle of truth in that statement." And Admiral Rodman was right.

In reply to Senator Trammell's question as to whether this charge was correct or not, Admiral Rodman said:

It is no reflection on Admiral Sims, but there is an old saw to the effect that there are three kinds of lies—"lies, damn lies, and statistics." I think that is hypothetical entirely. No, sir; I do not think that any fair-minded man could ever say that the American Navy was ever responsible for any loss of tonnage or loss of lives. Now, if I understand the conditions to which that question there pertains, it possibly refers to the submarine attacks on allied shipping.

I have no conception of those figures whatever, nor could I possibly, before any jury or before a committee and under sworn testimony, give positive evidence as to facts and as to figures; but I do not believe there is a particle of truth in that statement; not that Admiral Sims was not perfectly conscientious and may not have thought so. It may have been his interpretation. I will tell you why. Let us assume that there were a certain number of vessels of the Allies engaged in trying to get the submarines. Our percentage of that number, if we had sent every ship that was available for submarine combat, to the infested area, would have been only a small percentage. I do not know what, but it is small. Ten per cent of that amount of shipping, and that amount of lives that were lost by the submarine menace—give us 10 per cent of it, if you like, maybe, but let us make it out proportional to the

number of ships that you have sent there, and that statement ought to be knocked into a cocked hat. That is my opinion.

And that is the opinion of the distinguished admiral, the only admiral of the Navy who was in command of ships across the ocean, on the seas, during the war, the commander in chief of the Pacific Fleet, one of the greatest officers in the American Navy, and all-American.

"MATERIALLY AIDED IN SHORTENING THE WAR" AND "SAVED UNTOLD LIFE AND PROPERTY," ADMIRAL WILSON SAID.

Admiral Wilson, who was in command of United States naval forces in France, and was familiar with the work of other navies, as well as our own, in troop and supply transportation and antisubmarine operations, said in his "conclusions":

That from the moment war was declared the entire Navy—the department as well as the fleet—entered into the prosecution of the war with the greatest energy, and its accomplishments deserve the commendation of the Nation.

That our naval forces from the start cooperated in a most successful manner with the naval forces of our associates in many portions of the seas, and by their splendid and efficient work materially aided in shortening the war and in this manner saving untold life and property.

Now, there is Admiral Wilson, commander in chief of the Atlantic Fleet, declared by Admiral Mayo and every other officer under whom he has ever served to be a most competent officer; Admiral Wilson, who was in command at Brest during the war, through whose hands passed over 2,000,000 soldiers on the way to the front. Admiral Wilson says that our naval forces materially aided in shortening the war, and in this manner saving untold life and property.

In answer to Senator Pittman's question regarding Admiral Sims's charge, "I ask you, in your opinion, based upon your experience and knowledge of this war, is that charge true?" Admiral Wilson answered:

I do not believe this to be true. On the contrary, I believe that our naval forces from the start—

Bear in mind, Mr. Chairman, from the start; and if anybody knew, Admiral Wilson knew, because he was the first officer placed in charge of the patrol force—

I do not believe this to be true. On the contrary, I believe our naval forces from the start cooperated in a most successful manner with the naval forces of our associates in many portions of the seas; and by their splendid and efficient work, materially aided in shortening the war and in this manner, saving untold life and property, as stated in my conclusions.

To further show the faulty reasoning of Rear Admiral Sims, I ask attention to that part of the testimony before the committee contained in a memorandum prepared in the London office on August 3, 1918, for the information of the House Naval Committee. At this time we had about 300 vessels of all kinds in European waters. The memorandum states in part that "of all total craft operating against enemy submarines in British and eastern Atlantic waters, the American patrol forces constitute less than 5 per cent of the total number."

If, after 16 months of effort, we had less than 5 per cent of the total forces operating against the enemy (as the Naval Committee was informed), it is not probable that during the first six months we could have aided with more than 2 per cent of the total allied forces and I fail to see how such a small percentage of the total number of vessels operating against the enemy's submarines could have had so serious influence upon the duration of the war or upon the loss of life and shipping.

"SIMS'S STATEMENT INDEFENSIBLE HISTORICALLY," ADMIRAL NIBLACK CONCLUDED.

Admiral Niblack, who was in command of the United States naval forces based on Gibraltar, through which passed one-fourth of all the allied shipping in the world, said in his direct statement:

Admiral Sims states that our failure to send all of our antisubmarine vessels to the war zone immediately on the outbreak of war resulted in prolonging the war four months. A study of the vast problem of protecting the cargo ships of the Allies, will show that the number of protecting vessels which we might have sent and did not send to Europe at once was so small that the results could not have been materially different. In a statement made in London in 1918, Admiral Sims stated that we had only 3 per cent of the antisubmarine forces in Europe that the Allies had.

It is difficult to figure that with a maximum of only 3 per cent we could have shortened the war so greatly as four months; moreover, the small increase in the number of escorting vessels which we sent over between July and October could not have resulted materially in increasing the amount of protection furnished the cargo ship convoys, since it is here pointed out that the protection in the way of escort to the cargo ships was of the very scantiest character. * * *

I think we are apt to exaggerate the effect of the convoy system in lessening the number of sinkings, because I think we should take into consideration, as Admiral Mayo also points out, the employment of new and offensive measures through the use of depth charges, mystery ships, air ships, kite balloons, the laying of mine barges, the firing of torpedoes from allied submarines, combined with the use of organized patrols fitted with listening devices and hunting the submarine systematically. * * *

The sinking of submarines was, however, not attributable to any one method employed against them, but was the result in pretty equal proportions of the various means employed against them. * * *

One very important phase of the discussion of the convoy system which has been entirely overlooked is that during the entire war only one escorted convoy crossed from the United States to Gibraltar, and this was the one escorted by the U. S. S. *New Orleans*. This convoy was dispersed by heavy weather and was not regarded as entirely successful, because the ships came into Gibraltar subsequently singly. All the rest of the million tons of shipping which crossed from the United States to Gibraltar went across as single ships, going "on their own," as it were. These ships depended on their armed guard gun crews, and were independent of the convoy system. They actually encountered submarines, but they relied on their guns for protection.

Quoting Admiral Sims's charge that the Navy prolonged the war, Admiral Niblack said: "This, in my opinion, is the contention for which Admiral Sims's whole testimony stands," and he concluded that "the elements which entered into the collapse of the German offensive were so numerous, so varied, and so incapable of sweeping generalization that it is impossible, historically, to accept Admiral Sims's offhand statement."

In his cross-examination, in which he was asked numerous questions in regard to this charge, Admiral Niblack said, in reply to your chairman's inquiries:

The question is one of statistics. I say, and others have said, that this statement of Admiral Sims's is indefensible historically. I would be very glad to help my friend Sims out on it, but I can not.

SIMS'S CHARGE ANALYZED AND EMPHATICALLY DENIED BY ADMIRAL STRAUSS.

Admiral Strauss, who commanded the United States mine forces which were engaged in laying the North Sea barrage, gave you a careful analysis of the tonnage situation, disproving Sims's charge, and declared his conviction that the delays alleged did not in any degree prolong the war.

Answering the question as to whether Sims's statements were correct, Admiral Strauss said:

I have studied Admiral Sims's statement with respect to tonnage losses in connection with this question, and compared it with the information bulletin he sent out from London in September, 1918. The losses given in the bulletin from May to July, 1917, inclusive, total 1,825,670 tons. In the remaining five months of 1917 the losses total 2,004,725 tons. Grand total from the time we might have become active on May 1, 1917, until the end of that year, 3,830,393. Of this loss Admiral Sims states in his hearings a million and one-half tons would have been saved by our earlier cooperation. That is 39.2 per cent of all that was sunk.

Now, take the next year. Admiral Sims cites the losses in October as being 100,000 tons. As a matter of fact, it was 112,427, but he should have excluded October altogether from monthly comparisons, since according to agreement the Germans called all submarine warfare against merchant tonnage on the 11th of that month.

However, the total 1918 loss, according to the bulletin, amounts to 2,625,848, and Admiral Sims gives it as his opinion that we could have saved 1,000,000 of that if we had cooperated sooner. That is 38 per cent of the total for 1918. Now note that after fully entering into the business of protecting shipping, instead of a rise in percentage we are credited with a drop. With all due pride in our very efficient work in the war, I would give a lower estimate as our share, since the British, operating in their home waters, actually had 3,000 vessels devoted to this duty as against our 232. Furthermore, Admiral Sims himself gives as our share less than 5 per cent of the total number of all patrol craft operating against enemy submarines in British and Eastern Atlantic waters. (See Admiral Sims's memorandum to House Naval Committee, August, 1918.)

I feel that the data I have presented should be substituted for the complex calculation submitted by Admiral Sims, as showing that no action of ours, between our declaration of war and the cessation of hostilities, could have saved anything like two and one-half million tons. As the war progressed, many things contributed to the suppression of the submarine, the wholesale use of depth bombs in the spring of 1918, improved listening devices, the northern barrage, experience in fighting them, etc. All of these as well as our share of the patrol and convoy were factors.

On December 2, 1917, Gen. Pershing cabled the War Department as follows: " * * * The minimum number of troops we should plan to have in France by the end of June (1918) is four Army corps and 24 divisions, in addition to troops for service in the rear."

And further: "A study of American tonnage shows sufficient American tonnage to bring over this number of troops, but to do so there must be a reduction in tonnage allotted to other than Army needs." He had previously defined shipping for Army needs as including that for transport of steel, coal, and food.

The above excerpts from Admiral Sims's quotations from Gen. Pershing's report are significant. It states, in effect, that we must further disturb the economic condition of the country by diverting tonnage from trade to the pressing military needs, but leaves us to infer that if the troops and equipment are there, they can be transported. I have seen no statement anywhere that leads me to doubt that when the troops were ready to go transportation was there to take them. Twenty-four divisions of 20,000 each equals 480,000 men. By the end of June the date set, we had over a million men in France.

And Pershing expected only 480,000.

This number must have exceeded the highest hopes of the allied military leaders.

Stating his conclusion as to whether Admiral Sim's charge is true, Admiral Strauss said:

In my opinion, as a result of the above figures, the answer is no.

"DID NOT PROLONG THE WAR FOR A SINGLE DAY," ADMIRAL FLETCHER CONCLUDED.

Admiral Frank F. Fletcher, a member of the General Board of the Navy and of the War Industries Board and former commander in chief, United States Atlantic Fleet, told you:

The war mission of this country was made perfectly clear. Our sole main objective was to put a trained and equipped Army on the fighting line in France strong enough

to overcome the enemy in the final test of battle. Every other activity of the war must be subordinate and auxiliary to the accomplishment of this end. We must not for one minute lose sight of this fact. Every activity of the enemy which did not seriously menace the carrying out of this plan was of comparatively insignificant importance. Even the submarine menace, with all the fears and terrors its unknown possibilities inspired, could have no influence on the final outcome of the war unless it could succeed in starving England out of the war and in blocking our Army and its supplies across the Atlantic Ocean. The submarine menace accomplished neither of these objects.

I have previously shown how the creation of an American Army in France depended upon the output of our factories at home, and mentioned the length of time it required to get our factories up to quantity production. As the war progressed supplies came on in gradually increasing quantity and, through an economical use of shipping, were being continually accumulated on the other side. The size of the American Army that we could place in France at any given date after our entry in the war depended upon the quantity of war material—shells, powder, high explosives, rifles, artillery, and all the varied equipment that could be produced. The size of the Army depended upon these things and not upon the number of men that could have been transported across the sea by any given date. We could have placed a million men in France four months or even five months sooner than we did, but we would not have had an army there.

However, when sufficient war material had been created and we were ready for transportation, all necessary world shipping engaged in less essential work was summoned to our shores from many quarters, and our men were sent across the Atlantic as fast as they could march aboard ship on this side and disembark on the other side, and the first army of 1,000,000 men was assembled in France at the earliest possible date.

Neither the loss of shipping nor the imaginary loss of shipping that might have been saved delayed, through lack of transportation, the execution of the plan of creating an army in France for one hour, nor did it prolong the war for a single day.

That is Admiral Fletcher, commander in chief of the Atlantic Fleet at one time, a member of the General Board, and a member of the War Industries Board, one of the wisest, ablest statesmen the American Navy ever possessed, in command of our forces at Vera Cruz, and who in every place he has ever filled has shown the highest ability. I wish to repeat that. [Reading:]

Neither the loss of shipping nor the imaginary loss of shipping that might have been saved delayed, through lack of transportation, the execution of the plan of creating an army in France for one hour, nor did it prolong the war for a single day.

In the American Navy, Mr. Chairman, the statement of Admiral Fletcher, without any evidence from any other quarter against Admiral Sims's absurd and preposterous statement, would be convincing. Admiral Fletcher continues:

Mr. Chairman, I think your committee will now understand how it is that from my point of view I can reach but one conclusion with reference to the accusation "that the Navy Department is responsible for the loss of 2,500,000 tons of shipping, the prolongation of the war for four months, \$15,000,000,000 of debts, and the loss of 500,000 lives." The accusation is based upon assumptions and has no foundation on facts. The whole conclusion reached in the accusation is built upon the flimsy foundation of a hypothetical condition and is wholly without value.

"UTTERLY UNFOUNDED," ADMIRAL BADGER SAID.

Admiral Badger—and by way of parenthesis I would like to say, while I would not make any comparison of the men of the Navy, Admiral Badger is the wisest statesman that the American Navy has had since Admiral Dewey's death—chairman of the General Board and former commander in chief of the United States Atlantic Fleet, in his testimony said:

As to the statement that the failure of the United States to immediately send its full force of destroyers and antisubmarine craft to the war zone prolonged the war

four months and occasioned the loss to the Allies of 2,500,000 tons of shipping, 500,000 lives, and \$15,000,000,000, this is a very grave charge but one that I believe to be utterly unfounded. It is, in my opinion, based upon an entire misapprehension of the influence of the enemy submarines upon the duration of the war.

Looking broadly at the progress and conduct of the Great War, the blockade stands out as one of the most salient and decisive features.

From almost the day war was declared by Great Britain an effective sea blockade was instituted and maintained against the Central Powers to the very end. At no time did the development of submarine warfare loosen the grip of this blockade, which worked silently, slowly, and unceasingly to exhaust the material war resources of the enemy.

Enemy submarines, it is true, destroyed an enormous amount of ocean tonnage, supplies of all kinds, a considerable number of lives, and placed the allied cause in great peril, but with all their efforts they failed to break that strangling blockade or do sufficient damage to extort a favorable peace proposition and so, in the end, failed of their purpose.

The submarine operations added nothing to the Central Powers' material strength. The submarines did not open their ports to food or raw materials or other necessities for the prosecution of successful warfare. Actually the Central Powers were no better off, internally, with submarine operations in full blast than without them. Unless the submarines could so exhaust the allied resources that men and supplies could not be furnished in sufficient volume to the fighting fronts they had no decisive effect upon the progress or duration of the war.

Laboring under the handicap of our strict neutrality, creation of our new armies was not commenced until after war was declared though doubtless plans had been previously made for hastening a general mobilization when the time should come. Under the best of conditions, it took time to recruit, equip, organize, and give some preliminary training to the men destined for foreign service. It was not until a good many months after the declaration of war that we began to send our troops abroad in great numbers, though Admiral Gleaves escorted the first convoy of regular troops across the ocean in the latter part of June, 1917. By good management—it was not luck—we got a little more than 2,000,000 abroad in the course of a year and a half without loss and despite the submarines.

It is important to realize that the number of men we sent abroad in the time was phenomenal and was not limited by lack of overseas transportation. In the emergency transport was found, and utilized, and, so far as the submarines are concerned, they can not be said to have even checked the ocean transit of our troops. It was the arrival on the Continent of fresh troops from America in increasing and seemingly unlimited numbers that finally broke the morale of the enemy, already near the breaking point from four years of strenuous fighting and the material exhaustion due to the blockade.

Admiral Badger continues:

His submarine campaign failed to relieve the blockade, failed either to check the flow of troops from the United States so soon as made ready to cross the ocean or to stop delivery of the necessary supplies for the use of the armies at the front. It did not, in fact, delay the progress of the war, which, as was early predicted, had to be fought out on the western front—though it came measurably near doing so.

The enemy fought until he was exhausted, materially as well as morally. Nothing that the submarines did contributed toward relieving the exhaustion of materials. They weakened the resources of the Allies but fortunately not to the point where they could not support their civil populations and provide liberally for their armies in all their needs. The doors were closed to the enemy and nothing could enter. The submarine failed to open those doors even a little way, and collapse ensued. I am of the opinion—

Says Admiral Badger, the chairman of the General Board—

that the absence from the submarine danger zone, for a few weeks or even months, of a comparatively small number of United States destroyers or other antisubmarine craft in the early days of the war had no effect whatever upon its duration.

WOULD NOT HAVE SHORTENED THE WAR IF ALL OUR FORCES HAD SAILED FOR EUROPE THE DAY WAR WAS DECLARED, CAPT. PRATT SHOWED.

Capt. Pratt, who was in command of the destroyer flotilla and who was Assistant Chief of Naval Operations, and in Admiral Benson's

absence was Acting Chief of Operations, presented to you a comparison of forces which clearly shows that we could not have been responsible, under any circumstances, for more than a small proportion of the losses Sims charges; which losses could not have been prevented if every vessel we had should have sailed for Europe the day war was declared—

Suppose that on April 6, 1917, our entire naval forces had been ready and mobilized and had sailed on that date for Europe, would we then have been prepared to wage war under the actual conditions on that date?—

is a question Capt. Pratt asked and answered thus:

This requires still another estimate of our forces, that have sufficient capacity to cross the Atlantic.

ESTIMATE OF UNITED STATES FORCES UNDER CONDITION (6).

Fourteen dreadnaughts, 9 armored cruisers, 19 battleships, 4 cruisers first class, 3 cruisers second class, 15 cruisers third class, 51 destroyers (750 tons and greater), 16 coast torpedo vessels (420 tons), 7 tenders, 3 converted yachts, about 12 tugs and special service ships (repair ships, etc.), 22 fuel ships, 5 supply ships, 4 transports, 10 gun boats, perhaps 15 submarines (very doubtful), and about 4 coast guard ships.

This would represent 100 per cent of efficiency if everything worked like clockwork. Of all these ships the only ones which can be called real submarine fighters are the 51 destroyers of 750 tons. The 16 coast torpedo vessels are of very doubtful value, old and not good sea-keeping craft, of small radius of action; the 3 converted yachts the 10 gunboats, and the 4 coast guard ships are not fighters, but might be useful for escort and patrol. The other types, except the cruisers for convoy, are not wanted on the other side.

Therefore, absolutely disregarding our own needs, our own patrol, and our own fleet needs, are we still prepared to wage efficient war against the submarines, if every one of the craft enumerated, valuable for antisubmarine work April 6, 1917, sail at once? The total, at utmost, is 99, counting submarines. Let us make a comparison of this effort with the antisubmarine effort the Allies were making, as nearly as I can estimate:

Total British and French antisubmarine forces around British Isles and in Atlantic.....	967
French, British, and Italian forces in Mediterranean.....	736
Total.....	1,703

In other words, our total effort in that line, if we could have executed it instantly, could not have exceeded a ratio of 1 to 17, provided we neglected everything else, and everything worked like clockwork, or between the 5 and 6 per cent stated by Admiral Sims (my conclusions being worked out independently). Therefore, if we could have instantly applied our forces, with its good, indifferent, and its bad antisubmarine factors in it, to the aid of the Allies during the month of April, and taken to ourselves our proportionate share of the April losses in merchant tonnage, what would have been our share? It ought to be in proportion to the relative force we might have applied—that is, we might have had a maximum one-seventeenth or 5 per cent interest in it. The April sinkings were by long odds the greatest, amounting to 846,863 tons for that month as against 558,712 tons average, if we take the six very worst months, including April and on. So, on the 5 per cent proportion of our interest of the worst month, April, we had to our discredit a maximum of 42,343 tons of shipping, or a total of 254,058 tons for the next six months, provided we had not done a thing, and the submarine had been able to sink his 846,000 tons month by month, which, of course, we know he did not do. On the average six months' loss, 558,212 tons' basis, our monthly discredit share is 27,910, and our total six months' discredit share 167,460 tons.

He therefore concludes that—

The statement that we are responsible for 2,500,000 tons shipping loss is not so, looking at it in the light of cold figures.

Cross-examined as to whether, if all our antisubmarine craft had been sent over immediately it would have shortened the war, Capt.

Pratt maintained the opinion that it would not, as is shown by this extract from the record:

The CHAIRMAN. That is, you do not believe that it would have shortened the war by four months?

Capt. PRATT. Oh, no, sir; I feel perfectly satisfied it would not.

The CHAIRMAN. Do you think it would have shortened it three months?

Capt. PRATT. No, sir.

The CHAIRMAN. Or two months?

Capt. PRATT. No, sir; I do not.

The CHAIRMAN. Or a week?

Capt. PRATT. No, sir.

The CHAIRMAN. Or a day?

Capt. PRATT. No, sir.

CHARGE "MONSTROUS," AND AN INSULT TO EVERY MAN IN THE NAVY, ADMIRAL M'KEAN DECLARED.

Admiral McKean, an able officer of the Navy, who was aid for Material in the Office of Naval Operations, and at times was Acting Chief of Operations, declared that Sims's charge was "monstrous" and an insult to every officer and man in the Navy. And when Admiral McKean made that statement he was using the language of moderation.

Reviewing the various antisubmarine measures adopted, and the unavoidable delays in securing materials, men, approvals, and appropriations, Admiral McKean said:

I do not believe that the sum total of all these delays prior to our entering in the war, or after our entering into the war, gives the slightest foundation for anyone to justly make the charge against the Navy Department that it was responsible for delaying the end of the war four months.

Nor do I believe that anyone, short of the good God Himself, has sufficient knowledge of the various elements and factors entering into the war and the causes of its conclusion to justify him for one moment in charging that the Navy, or any of its officers, were responsible for the loss of any part of the 2,500,000 tons of allied shipping claimed to have been unnecessarily lost; nor for any part of the \$15,000,000,000 of the Allies' money claimed to have been unnecessarily spent; nor, least of all, do I believe that there is any human being with sufficient information and sufficient knowledge to justify him in charging the unnecessary loss of life of 1 of the 500,000 allied soldiers charged to have been due to the errors of the Navy.

This monstrous charge—

Admiral McKean says "this monstrous charge," and "monstrous" is the mildest word that he could use, to make it adequate—

has been or will be disproved in every item. Had it been made by any foreign official, allied or enemy, it would have aroused the indignation of the whole American people!

Had it been invented by the inflamed, exaggerated, diseased ego of a patient in St. Elizabeths, the Government Hospital for the Insane, no one would have been surprised. That it was made under oath by a rear admiral of the United States Navy, on the active list, president of our Naval War College, in a hearing before a committee of the United States Senate, is, in my opinion, an insult to every officer and man now in the Navy, or who served in the Navy during the World War.

CHARGE AN "OUTRAGE" UPON THE AMERICAN PEOPLE AND THE ENTIRE NAVY, ADMIRAL BENSON DECLARED.

Admiral Benson, former Chief of Naval Operations, declared that this charge made by Admiral Sims is "an outrage to the American people"; and "an outrage to the honorable record of the United States Navy." He expressed the opinion that, "if it is allowed to

stand, it will be to the everlasting disgrace of the Navy" and will weaken it now and in the future.

The following is taken from the record of Admiral Benson's testimony:

Senator PITTMAN. All these matters, Admiral, so far have largely been dealing with minor plans embraced in Admiral Sims's letters or reports, and his charges before this committee. The vital charge, in my opinion, the charge that affects the standing of the Navy before the world, and you might say the honor of our Government, and which alone in my opinion justifies the appointment of this committee, is the ultimate, serious charge made by Admiral Sims, that by reason of delay in sending forth our antisubmarine craft, and by reason of unpreparedness, we were responsible for an extension of the war for a period of four months, and the consequent loss of 500,000 men. Now, I want to know positively and directly whether you agree with that charge or disagree with it?

Admiral BENSON. I disagree most decidedly with it, sir, and I would like to be allowed to give my views in regard to it.

Senator PITTMAN. I would be very pleased to hear them and I have no doubt that the committee would.

Admiral BENSON. As I have stated before, I firmly believe what hastened the close of the war, as far as America was concerned or the United States, in the main, was getting American troops on the western front. The one thing that hastened it particularly was the formation of the American Army under Gen. Pershing. I do not believe that any possible delay, if such there was, had the slightest effect on lengthening the war, except in this way, that had we not gotten in there, had we not done what we did do, the Allies might have been forced into a peace and ended the war before we got into it, they being the losers and the Germans being the winners.

Under no circumstances could the war have been shortened by what we did or did not. That is the military and naval view. I am satisfied, of those who are in a position to judge, and the mission of the United States Navy in this war, next to protecting our coasts and vessels, was to get our troops into France and keep them and the Allies as far as possible supplied with munitions and provisions.

We carried the troops over—those that we did carry—and we assisted the Allies in what they carried, and we brought our troops back, and to the best of my recollection the Navy never lost an American soldier while it had it in charge.

In 1918, we were getting them over there at the rate of over 300,000 a month, the most wonderful performance that was ever seen or ever dreamed of, and it was due to this fact that the end of the war was hastened; and there has never been any complaint that I know of, or any intimation of any failure on the part of the Navy either by our Army or anybody in this country, or any of the Allies; no intimation of our failure to act up to the limit in the most enthusiastic and efficient manner, with the means that we had to perform, except the complaint which Admiral Sims has made.

I feel that the complacency or the calmness with which the American people have accepted that statement is a tribute to their sense of fair play, but I must express in the strongest possible language that I think it is an outrage to the American people. I think it is an outrage to the honorable record of the United States Navy; I think if it is allowed to stand it will be the everlasting disgrace of the Navy and I think that our first aim of national defense will be weakening now and in the future. I think it is particularly hard and outrageous on the nearly 500,000 young men who volunteered in the Navy, and who did such splendid work, and who went back to their homes feeling proud of the service in which they served, and the people that gave them up to the service of the country were proud of them. And I feel very strongly that if there be any doubt or any question in anybody's mind as to this situation, the experts of the Army and every person in the country who is able to form a correct judgment should be called before this committee to give their opinion on it. I feel that it is too serious a charge to be allowed to stand, and I feel very strongly that, as I said in the beginning, it is an outrage on the American people, and particularly on the American Navy.

I have, therefore, given you, Mr. Chairman, the opinions of these 10 men, of the 9 admirals, and Capt. Pratt, a ranking captain—the opinions of the 10 men who had the largest responsibility of the carrying on of the war, for the Navy; and these 10 men all agree that Admiral Sims's statement is preposterous, absurd, without foundation, an outrage upon the American people and upon the

American Navy; and when the American people read the opinions of these 10 officers and then read Admiral Sims's opinion, no doubt they will agree with the 10 men rather than with the preposterous and outrageous slander upon an honored service.

Yesterday, or day before, I gave to your committee a statement showing that Admiral Sims did not recommend a single new, a single bold, a single audacious policy that was established or carried out by the Navy during the entire war. Now, in order to be perfectly fair to him, and that the record shall show, I will give you what Sims did recommend.

WHAT SIMS RECOMMENDED.

Admiral Sims read to you, in full, his first two reports submitted to the department, one a cable sent four days after his arrival abroad, (April 14, 1917) and the other a letter submitted five days later (April 19, 1917.) He has told you:

Although these two documents will touch on various subjects, it is necessary to read them in full simply to establish the fact that all of the communications which followed during the next six or eight months were mere elaborations and reiterations thereof; that these two reports were very comprehensive, and that, as a matter of fact, there was no time up to the signing of the armistice when any cause arose for changing any of these original recommendations as therein made.

As the admiral himself states that these documents embody all the really vital and important recommendations he made, it is worth our while to see what those recommendations were. Here they are, stated in Sims's own words (dispatch of April 14, 1917):

Maximum number of destroyers to be sent accompanied by small antisubmarine craft, former to patrol designated high-sea area westward of Ireland based on Queens-town with an advance base at Bantry Bay, latter to be an inshore patrol force. Destroyers, small craft, should be of light draft with as high speed as possible but low speed also useful. Also repair ships and staff for base. Oil and docks available but advise sending continuous supply of fuel. German main fleet must be contained demanding maximum conservation of the British main fleet. South of Scotland no base is so far available for this force.

At present our battleships can serve no useful purpose in this area except that two divisions of dreadnaughts might be based on Brest for moral effect against anticipated raids by heavy enemy ships in the channel out of reach of British main fleet.

The chief other and urgent practical cooperation is merchant tonnage and a continuous augmentation of antisubmarine craft to reinforce our advanced forces. There is a serious shortage of the latter craft. For towing the present large amount of sailing tonnage dangerous areas seagoing tugs would be of great use.

The cooperation outlined above should be expedited with the utmost dispatch in order to break enemy submarine morale and accelerate the accomplishment of the chief American objective.

Note carefully his recommendations:

That maximum number of destroyers be sent. We had decided to send destroyers to Europe and orders to that effect had been issued before we ever received Sims's dispatch. We also sent the maximum number possible, and sent them with what the best naval officers considered notable promptness. Though they had to go on a 3,000-mile voyage, our destroyers were rapidly fitted out. The first division sailed within 10 days after Sims's dispatch was received. Within two weeks, that is by the end of April, as Admiral Mayo testifies, all destroyers with the Atlantic Fleet and the tenders *Melville* and *Dixie* had been ordered to fit out for distant service.

We had only 50 modern destroyers and wanted definite information as to how many the British regarded as necessary to meet the immediate need. Sims stated in his despatch of April 28:

Yesterday the war council and Admiralty decided that cooperation of twenty-odd American destroyers with base at Queenstown would no doubt put down the present submarine activity which is dangerous and keep it down. The crisis will be passed if the enemy can be forced to disperse his forces from this critical area.

One division of 6 destroyers was already on its way to Queenstown and arrived May 4. A second division (6) sailed three days later; and within a month of the time the war council and Admiralty stated that "twenty-odd" would do the work in the critical area 28 destroyers were either in Queenstown or on the way there. Two repair ships and staff for base was also sent as requested.

That our battleships could "serve no useful purpose" in that area, except that two divisions of dreadnaughts "might be based on Brest for moral effect against anticipated raids." As it was our policy to maintain our fleet intact, and not to detach battleships except for vital reasons, this casual suggestion of sending two divisions of dreadnaughts to Brest or the channel for "moral effect" did not appeal to the department. We well realized, as Sims so repeatedly stated and emphasized, that the vital mission of destroyers was to operate against submarines. Even Sims could hardly have wished us to send our dreadnaughts into the war zone without protection. He said the British had not nearly enough destroyers for their own uses. To have furnished screening vessels for those dreadnaughts—I wish you to bear that in mind—we would have been compelled to have withdrawn our destroyers from Queenstown, where Sims tells you they were more vitally needed than anywhere else in the world. There is no need of stating further the utter folly of this suggestion of Sims regarding our battleships.

That merchant tonnage and antisubmarine craft be augmented as rapidly as possible. We had already in March ordered hundreds of submarine chasers, chartered and leased yachts and other available small craft, and work was pressed with all possible speed to send them overseas. We had made contracts for many destroyers, and soon had contracted for all American yards could build. The Shipping Board was then laying the foundations for the greatest merchant tonnage ever built in the world in a similar period.

That seagoing tugs be sent. The number of such tugs in America was not then, nor was it ever during the war, sufficient for all the vast traffic essential for war purposes of our ports; and the towing requirements of transports, cargo and passenger ships, and the barges and other craft carrying fuel in coastwise trade. It was these tugs which in the terrible winter of 1917-18 relieved the coal shortage of New England and kept its shipyards and munition plants running. Tugs were among the last things we sent, because we had so few of the ocean-going type, and they were of the craft America could least spare if war needs were to be met. They were the craft that towed coal to New England and kept running the factories, shipyards, and munition plants of the region Senator Hale and Senator Keyes represent. If we had sent them to England, they could not have performed for New England that vital service which enabled the factories of that section to turn out tons and tons of war material.

Admiral Sims told us in that first dispatch of his. This is a very important telegram [reading]:

It is very likely the enemy will make submarine mine-laying raids on our coast or in the Caribbean, to divert attention and keep our forces from the critical area in the eastern Atlantic through effect upon public opinion. The difficulty of maintaining submarine bases and the focusing of shipping on this side will restrict such operations to minor importance, although they should be effectively opposed principally by keeping the channel swept on soundings. Enemy submarine mines have been anchored as deep as 90 fathoms, but majority at not over 50 fathoms. Mines do not rise from the bottom to set depth until from 24 to 48 hours after they have been laid.

So far all experience shows that submarines never lay mines out of sight of landmarks or lights on account of the danger to themselves if location is not known. Maximum augmentation merchant tonnage and antisubmarine craft where most effective constitute the paramount immediate necessity.

Sims, as will be seen, informed us that the enemy would probably make submarine mine-laying raids on our coast. This was a warning that we could not neglect. The Navy is always the Nation's first line of defense, and the protection, as best we might, of our coasts and shipping from submarine attack was a duty that could not be neglected. We were quick to send and did send to Europe all the destroyers we could spare, and more than eminent naval authorities thought we were justified in sending. But we never for a moment thought of adopting Sims's astounding recommendation that we send all our antisubmarine craft to Europe and "strip our coasts entirely of sea-going protection." Mr. Chairman, he actually advised us to strip our coasts entirely of sea-going protection; which we declined to do.

There was not a naval officer of standing in America who approved such a plan. The results when the enemy submarines did appear off our coasts later proved the wisdom of the department's policy; and the disastrous results that would have followed if we had adopted Sims's repeated urgings to "strip our coasts of all seagoing protection." As a matter of fact, Germany knew much of the movement of allied craft, and if the advice of Sims had been taken that we "strip our coasts entirely of sea-going protection" the German submarines would, in all probability, have come across the Atlantic in 1917 instead of waiting until 1918. It was because the Germans knew we were ready for them that they delayed coming to our coasts until we had sent nearly all our best destroyers overseas. The Navy Department by its American action showed more wisdom than Sims displayed in his London advice. We furnished the maximum help in the submarine zone and also protected the American coasts, two duties which were imposed upon the Navy Department. In this advice, as in other, as Admiral Niblack said in testimony, Sims saw only one phase of the Navy's mission. The Navy Department envisioned it all.

ANALYSIS OF ADMIRAL SIMS'S LETTER.

Admiral Sims's letter of April 19, 1917, is in the main, an elaboration of his dispatch of April 14, containing only one additional suggestion, that of possible use of our submarines. But it does give a very clear idea of the policies being pursued by the British Navy at

the time, as is shown by the following extracts from the admiral's report. He says:

14. Considerable criticism has been, and still is, concentrated upon the Admiralty for not taking more effective steps and for failing to produce more substantial and visible results. One of the principal demands is for convoys of merchant shipping, and more definite and real protection within the war zone.

17. After trying various methods of controlling shipping, the Admiralty now believes the best policy to be one of dispersion. They use about six relatively large avenues or areas of approach to the United Kingdom and Channel, changing their limits or area periodically if necessity demands.

18. The great difficulty in any method of shipping control is communication with the shipping itself and full cooperation by the merchant personnel. The moment a ship is captured the code either becomes dangerous or useless. The merchant code is being continually changed and at all times it can not be counted upon for more than a fortnight. The immense difficulty of changing the code and keeping shipping over all the world in touch with changes is apparent.

20. The Admiralty has had frequent conferences with merchant masters and sought their advice. Their best unanimous demand is "Give us a gun and let us look out for ourselves." They are also insistent that it is impracticable for merchant vessels to proceed in formation, at least in any considerable numbers, due principally to difficulty in controlling their speed or to the inexperience of their subordinate officers. With this view I do not personally agree but believe that with a little experience merchant vessels could safely and sufficiently well steam in open formations.

21. The best protection against the submarine menace for all classes of ships, merchant as well as naval, is speed and zigzagging, not more than 15 minutes on a course. Upon this point no one disagrees, but on the contrary there is absolutely unanimity of opinion.

22. In the absence of adequate patrol craft, particularly destroyers, and until the enemy submarine morale is broken, there is but one method of meeting the submarine issue upon which there is also complete unanimity—increased number of merchant bottoms, preferably small. "More ships. More ships. More ships." is heard on every hand.

23. It is also significant that until very recently the Admiralty have been unable completely to convince some members of the cabinet that the submarine issue is the deciding factor in the war. The civilian kind, here as at home, is loath to believe in unseen dangers, particularly until the pinch is felt in real physical ways.

Admiral Sims also states, paragraph 24:

The prime minister only two days ago expressed to me the opinion that it ought to be possible to find physical means of absolutely sealing up all escape for submarines from their own ports. The fact that all such methods (nets, mines, obstructions, etc.) inherently involve the added necessity of continuous protection and maintenance by our own naval forces is seldom understood and appreciated. I finally convinced the prime minister of the fallacy of such propositions by describing the situation into which we would be led, namely, that in order to maintain our obstructions we would have to match the forces the enemy brought against them until finally the majority if not all of our forces would be forced into dangerous areas where they would be subject to continual torpedo and other attack, in fact in a position most favorable to the enemy.

What a historical picture, this, of an American admiral, who had been in London two weeks, patiently explaining to Lloyd-George, who had borne the burdens of the war three and a half years, that his ideas were all wrong. If he convinced the British prime minister that he was wrong, he failed utterly when later he undertook in a long cablegram to convince the President of the United States, who pressed the plan of a barrage across the North Sea until it destroyed 84 per cent of all the submarines captured. That he convinced the prime minister that his idea that submarines could be penned in their bases was wholly erroneous, is interesting in view of the success-

ful accomplishment of the North Sea mine barrage and the blocking of Ostend and Zeebrugge.

It also throws light upon Admiral Sims's persistent opposition to every plan we submitted along this line, and the delay of half a year in inducing the British Admiralty to approve the proposal for a barrage across the North Sea. Lloyd-George was wrong, the Navy Department was wrong, everybody was wrong except Sims and those in the Admiralty who opposed any new plan. After he had convinced the British Prime Minister that he didn't know what he was talking about, it must have been very irritating to Admiral Sims to have our own Navy Department (which was American and, of course, could not have any ideas worth considering) to persist in urging the adoption of an "impossible" plan like the mine barrage.

Admiral Sims ridicules the secrecy of our own Navy Department sending him abroad, but he found the same sort of secrecy in the British Admiralty very impressive, for he says:

The necessity for secrecy which the British Government has experienced, and which I repeatedly encounter in London, and even in the Admiralty itself, is impressive.

Admiral Sims's letter of April 19, 1917, shows very clearly:

1. That the British Admiralty had not adopted the convoy system.
2. That it was pursuing the very opposite policy—that of dispersion of shipping.

3. That the methods the British were pursuing (antisubmarine patrol, etc.) were not succeeding.

4. That the British people generally and even some members of the Cabinet did not realize the seriousness of the submarine warfare.

5. That the British merchant captains opposed the convoy system, and preferred that their ships be armed and allowed to sail singly.

6. That all the officers of rank and actual experience he consulted agreed that the best protection against torpedoes was speed and zigzagging.

7. That there was wide difference of opinion as to the effectiveness of using submarines to fight submarines.

This letter may be taken as a fair example, a little better than the average, of Admiral Sims's communications to the department.

MEASURES HIS DISPATCHES BY THE MILE.

Admiral Sims gave you some idea of the immense volume of dispatches he sent. He said:

I do not know how many dispatches there were, but they are in the hundreds of thousands. I asked my statistician some time ago how many there were, and he said if they were bound up in boards and set on a shelf, that shelf would have to be 140 feet long in order to contain them. Of course, the committee does not want them all.

Out of these miles of dispatches I am only selecting representative ones, and out of those representative ones I am selecting those that illustrate the point in question; and of all of those dispatches, of which there are probably 200,000, I am only selecting a certain number, and these can be included: and if, after my testimony is concluded, you decide that it would be advisable, you can put them in in full; but in the meantime there are only extracts from these dispatches.

The colossal preliminary statement and testimony which Admiral Sims presented to this committee, the reading of which consumed two weeks of your sessions, gave you some idea of his voluminosity. Yet, in his concluding statement he summed up all his testimony and charges in three pages; he tells you that "all the communica-

tions which followed in the next six or eight " months were "mere elaborations and reiterations" of his cable of April 14, and his letter of April 19, 1917. And what recommendations did these contain?

1. That the maximum number of antisubmarine craft and tugs be sent to Europe.
2. That two divisions of dreadnaughts be sent for "moral effect."
3. Advocacy of the convoy system, which had been proposed and was being discussed by the British Admiralty, but not put into effect until months later.
4. The suggestion that it might be useful to send some American submarines for employment against enemy U-boats, as the British were then experimenting along that line.

OTHER THINGS SIMS RECOMMENDED.

While Admiral Sims's first two communications do set forth the chief policies he advocated, they do not embody all his specific recommendations.

These are set forth in his letter of January 7, 1920, and his preliminary statement before this committee. They include the following:

1. That he was constantly urging an increase of forces.
 2. That he was continually calling for a larger staff.
 3. That he recommended the sending of four coal-burning dreadnaughts to the British Grand Fleet.
 4. That he considered that whatever recommendations he made should have been accepted and immediately acted upon.
 5. That he resented the department's insistence upon "full and detailed substantiation of every proposition advanced"; that is, upon being fully informed before important decisions were made.
 6. That all our antisubmarine craft be sent to Europe; that we "strip our coasts of all seagoing protection;" and "repeatedly explained"—listen, gentlemen, I am quoting his words—"that if we could actually entice the enemy into shifting his submarines to our coast it would be greatly to the advantage of the common cause, even granting that our shipping would suffer somewhat more severely."
 7. That he be permitted to enroll in the Naval Reserve as officers such persons as he saw fit; and to promote reserve officers in his discretion.
 8. That he be permitted to select his "subordinate flag commanders," that is, to choose his personal favorites for the most important European commands.
 9. That we boldly move to Paris or London (meaning London) the planning and directing end of our Navy Department "leaving behind in Washington only the organization for insuring support and coordination of home and material effort."
- He did not tell you voluntarily; though it was brought out in cross-examination, that he recommended that the British Admiralty (for that was what he meant, though he camouflaged it by naming Italy and France first) "direct all operations, the others merely keeping the one selected fully informed of their resources available, and submitting to complete control and direction in regard to the

utilization of these resources." Here are his words, in his letter to me July 16, 1917:

It is unquestionable that efficiency would be greatly improved if any one of the Allies—Italy, France, England, or the United States, were selected to direct all operations, the others merely keeping the one selected fully informed of their resources available, and submitting to complete control and direction in regard to the utilization of these resources.

The first course open to us which naturally occurs to mind is that we should look upon our service as part of the combined Allied service, of which the British Grand Fleet is the main body and all other Allied naval forces disposed throughout the world as necessary branches thereof.

This conception views our battleship fleet as a support or reserve of the Allied main body (the British Grand Fleet) and would lead to utilizing our other forces to fill in weak spots of, and to strengthen, Allied lines, both offensively and defensively wherever necessary.

Such a course might be viewed as disintegration of our fleet and it is only natural therefore, that hesitation and caution should be felt in its adoption.

I assure you, Mr. Chairman, that we viewed with hesitation and caution the proposition of turning over the control of the American Navy to any other navy in the world; and we never thought of doing it; and we would have been unworthy as Americans if we had followed the advice given by Admiral Sims.

SIMS'S OWN REPORTS DISPROVE UTTERLY HIS CHARGE THAT DESTROYERS WERE "RUSHED THROUGH BRIEF AND INADEQUATE PREPARATION."

Some of the charges made by Admiral Sims are disproved so completely by his own official reports, which statements in his letter and testimony directly contradict.

For instance, in his letter of January 7, paragraph 78, specification 4, he says:

Destroyers arriving in the war zone, had been cruising extensively off our seaboard and in the Caribbean, and, when war was declared, were rushed through a brief and inadequate preparation for distant service.

As a matter of fact, every report we received called attention to the notably excellent condition in which our destroyers arrived, and Admiral Sims himself, in cables, letters, and reports directed attention to this as a subject of comment and praise. A few extracts from his reports are quoted below:

[Telegram of May 11, 1917.]

6. Our ships made no demands of consequence upon the navy yard facilities after arriving, in spite of the length of their passage under adverse conditions. The commander of the division, when questioned by the vice admiral as to when his vessels would be ready for duty, reported that he should be ready that night, as soon as the ships were refueled * * *.

7. The vessels themselves caused a great deal of complimentary comment, and, contrary to expectations, were found to be well equipped for their prospective duty, with the single exception of "depth charges."

Dispatch May 24, 1917, states that the *Melville* arrived in excellent condition.

[Report of May 26, 1917.]

The Sixth Division arrived on the evening of the 24th of May in excellent condition, no repairs being required.

Dispatch of June 2, 6 p. m., states that the Admiralty desired him to report "officially that the United States destroyer forces

which are working in the Atlantic approaches are rendering most excellent and valuable services."

Report received in the Bureau of Steam Engineering June 18, 1917:

1. It is gratifying to be able to report that the operations of our forces in these waters is proving not only very satisfactory but also of marked value to the Allies in overcoming the submarine menace. The equipment and construction of our ships had proved adequate and efficient.

2. The *Melville* and the destroyers arrived fully prepared for the duty for which they were to be used, and the only additions which have been made to their armament or equipment has been the installation of 300 depth charges. * * *

July 15, 1917, Letter No. 6 announcing the arrival of the *Jupiter* and *Neptune*, convoyed by the *Perkins*, *Jarvis*, *Walke*, and *Sterrett*, states:

All four destroyers arrived here in excellent condition.

Letter No. 38, July 19, 1917, forwards a copy of Commander Pringle's report, in which he states:

All destroyers are generally in splendid condition and there is every indication that they will continue to give efficient service. Since operating with our Allies our destroyers have never failed to meet the schedule laid down for them, and when they have been called on in advance of it they have always responded.

3. * * * It has evidently been a source of considerable surprise and satisfaction to the British authorities to find that our ships have been able to look out for themselves.

4. *Engineering*.—The machinery of all destroyers is generally in very good to excellent condition, and is holding up admirably under the trying conditions it is subjected to.

Report of November 26, 1917, under the heading "Miscellaneous Information Regarding Destroyer Force," Admiral Sims states:

The force commander is particularly gratified to be able to report the manner in which the destroyer flotillas are meeting the war demands placed upon them. A great deal of indirect commendation is heard and received concerning both the efficiency of their operations and the manner in which they stand up to the duty. Within the past week the Admiralty has expressed concern as to whether they are not being driven too hard.

I submit, Mr. Chairman, by his own official statements he conclusively destroys his statement of January 7, when he said they were rushed to distant service inadequately prepared. They were well-prepared and did excellent work, and won commendation from all who saw them in Europe.

TARGET PRACTICE BEFORE THE WORLD WAR.

Was the Navy diligent in making ready before the war? Sims and Plunkett testified in the affirmative as to hitting the target and gunnery. In testimony given before the House Naval Affairs Committee, March 10, 1916, when certain naval officers were trying then, as now, to discredit this Administration, Admiral Sims told this committee that—

In 1912 when I delivered the opening address before the Naval War College extension in Washington I pointed out exactly what had happened, that the target practice, and we then had the first results of it, was an utter and absolute wreck.

This was the year before I became Secretary of the Navy. In 1914 boards of inspection were appointed, "when," Admiral (then Captain) Sims states: "The target practice came up about 40 per cent." Again in 1916, when there was so much discussion of this all-important

work, upon inquiry by a resolution of the United States Senate as to efficiency in target practice, Admiral Sims in a letter to the Secretary of the Navy of July 9, 1916, stated:

Since that time (1913) our shooting has greatly improved, particularly within the last two or three years. As an example of this it may be stated that the improvement in last year's shooting at elementary practice for that and the year before was not less than 40 per cent, thus showing that the curve of improvement was rapidly ascending.

You have heard Admiral Plunkett tell you of the improvement in gunnery and battle practice in the Navy immediately prior to our entrance in the war. In addition to his testimony before your committee, I wish to give your committee the statement made by the director of gunnery exercises (Admiral Plunkett) and engineering performances in 1916 and furnished by me on December 11, 1916, to the House Naval Affairs Committee. It will be found on pages 728-729, "Hearings Before Committee on Naval Affairs, Sixty-fourth Congress, Second Session," and my statement for request for additional appropriations, including Capt. Plunkett's report. It is as follows:

In connection with the increase in the appropriation for gunnery and engineering exercises from \$135,000 to \$205,000, I wish to speak of the steady improvement in the battle practice of the fleet during the last year. From all quarters come reports of enthusiastic and increased interest, which means better scores and better records.

At no time in the history of the Navy—

Says Admiral Plunkett—

has the entire personnel been so keen and alert to break former records, and the achievements of the year give promise that each succeeding performance of the fleet will equal and probably surpass the unprecedented accomplishments of the last 12 months. The following statement, prepared by the director of gunnery exercises and engineering performances, shows how really wonderful the progress of this period has been:

The results of the various forms of battle practices with guns and torpedoes, as reported herein, show a creditable improvement over those of a similar character conducted last year.

During the gunnery year 1916, 12 vessels of the battleship class, 27 vessels of the destroyer class, 24 vessels of the submarine class, and 21 vessels of the cruiser and gunboat classes, completed all forms of gun and torpedo practice prescribed for the year. All forms of gun practice were completed by 14 vessels of the battleship class and 21 vessels of the cruiser and gunboat classes. Twenty-eight destroyers and 25 submarines completed all forms of torpedo practice. Thirty-four destroyers fired day battle practice with torpedoes and 25 submarines. In all cases where vessels in commission failed to complete all forms of practice satisfactory reasons were given and involved repairs or material changes compelling the vessel to go to a navy yard, and thus lose the opportunity to fire, or to place in the active fleet being taken by newer vessels, placed on the reduced complement basis.

The general results are fully up to the expectations of the department, and again show that steady improvement in the natural consequence of a more concentrated effort on the part of those responsible for personnel and material.

The gun practice of the battleships was carried out at ranges far in excess of any heretofore prescribed, the closest comparison being that of the year 1914, when full charges were used as was done this year. The day individual practice was conducted at a mean range of over 15,000 yards with the main battery guns of 1916, as compared with the mean range of 10,000 yards with the same guns in 1914. The percentage of hits was not only maintained but showed a slight increase in spite of over 50 per cent increase in range.

This was over a year before we entered the war. Practically the same number of ships were fired in both years. The Department does not consider the rate of fire with the large-caliber guns to be entirely satisfactory, the tendency being to wait the fall of all the shots from each salvo. The orders for gunnery exercises this year intend that when a straddle or bracket has been established the rate of fire should include at least half the guns engaged in and actually firing. A comparison

with 1915 is not made as reduced charges were used and consequently materially shorter actual ranges prescribed.

A comparison of the results of the torpedo-defense practices of one year with that of another is difficult, owing to the continual change necessary in the orders for conducting the practice, in the desire to try out all possible methods of solving this difficult problem. The 5-inch gun is gradually displacing all other calibers for torpedo-defense purposes as the dreadnaught type displaces the predreadnaught in the active fleet. Greater efforts than ever must be made to render this form of firing more effective, and with the adoption of standard methods of control and its proper supervision the department expects a material improvement. The introduction of day firing with the torpedo-defense battery should develop many weaknesses heretofore shrouded in the cover of darkness, and with improved searchlights and greater effort on the part of personnel a considerable improvement should be had.

A marked improvement is noted in the battle torpedo practice of the battleships for the last year over that of previous years. This most important element of offensive strength is receiving the attention it deserves as indicated by the remarkable increase in the percentage of hits at increased ranges. With increased accuracy and reliability due to greater experience and higher intelligence of the personnel, results which have been considered more or less problematical are now, the department is pleased to note, matters of common accomplishment.

The torpedo practice of the destroyers showed a very material and satisfactory increase in the performances of all ships. Nearly three times as many torpedoes were fired in 1916 as in 1915, and on the battle practice where 146 torpedoes were fired this year none were lost, and the percentage of torpedoes performing properly showed a substantial increase due to greater skill of personnel, and is very gratifying to the department.

The destroyer forces are maintaining a satisfactory improvement with their guns. The 4-inch gun as now mounted in the destroyers has established its superiority over the 3-inch gun, and the department expects further material improvement and an increased percentage of hits, in spite of the well-known difficulties under which destroyers use their guns.

The submarines also show a very decided improvement, nearly twice as many torpedoes being fired this year as last, and the increase of 70 per cent of hits on the battle practice is deserving of more than passing notice. It is realized that with the improvement in the character of the material a corresponding increase in efficiency would be expected.

The gun practice of the cruiser and gunboat classes was carried out under orders similar to those of the other classes, and quite different from that obtaining heretofore, but being a marked improvement in that all classes of vessels now conduct gun practice under conditions simulating actual battle. The results are entirely satisfactory. The department having prescribed orders for gun practice for vessels of the train, this form of practice was carried out by all the auxiliaries having guns mounted and equipped with naval crews. As a result of bringing all classes of vessels into the gunnery work of the year, greater interest throughout the service is stimulated, and defects and weaknesses as they develop from time to time can be dealt with and corrected instead of waiting until actual conditions of war exist and serious defects may be beyond correction.

(Thereupon, at 12 o'clock m., the subcommittee took a recess until 2 o'clock p. m.)

AFTER RECESS.

The subcommittee reconvened, pursuant to the taking of the recess, at 2 o'clock p. m., Senator Frederick Hale (chairman), presiding.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. Mr. Secretary, will you proceed?

Secretary DANIELS. When the committee adjourned at noon, Mr. Chairman, I had read a statement showing the great improvement in target practice in the United States Navy before the World War, showing from Admiral Sims that it improved from 1912 to 1916 40-

per cent, which is the best evidence possible that the Navy was in better condition for a war than it had ever been; and I have read also from Admiral Plunkett, showing the marked improvement in every line of gunnery.

THE BATTLE OF JUTLAND AND THE CONDITION OF THE BRITISH FLEET.

The British Navy is the biggest in the world and more hundreds of millions of dollars were spent on it before 1914 than upon any other navy. Its avowed policy was to be twice as powerful as that of Germany in the hope and belief that such a preponderance would either prevent war or assure naval victory if war came. There was but one naval battle in which the British and German Navies were engaged in full force, comprising ships of all classes—the battle of Jutland. Reams have been written on that battle and more reams will be written when all the German reports are available, and naval experts will disagree and debate for a decade, telling us what might have happened if this or that had or had not occurred. It is not necessary to discuss the battle, except I may say it is known to all that the German Fleet did not come out again to try conclusions.

In his interesting story of the Battle of Jutland, Admiral Jellicoe, one of the best naval officers in the world, makes a number of statements which show that not even the British Navy, expecting every minute a decisive battle, and therefore compelled to keep its fleet in readiness, could be 100 per cent perfect. He shows that the British fleet in the Battle of Jutland did not have the preponderating strength the world supposed. He also frankly admits certain deficiencies and weaknesses which surprised the people of Great Britain and the world which had supposed the British Navy was far superior to Germany's in every unit of fighting strength, including destroyers, and yet Admiral Jellicoe makes these statements:

This country had in home waters at the same period only 76 destroyers that could be compared with the German vessels in view of modern requirements, and 33 of these had a speed of only 27 knots.

We were very short of destroyers for fleet work, and we were well aware of the thoroughness of the defenses of the German naval bases. We knew that they not only possessed the most powerful and ample artillery defenses, but we knew also that the Germans had a very efficient mining service, and they were justified in assuming that they had protected their naval bases by extensive mine fields. We, on the other hand, were entirely unprovided with this particular form of defense.

Another factor in this matter was the knowledge that our enemy was almost certain to possess a very considerable superiority over us in the number of destroyers likely to be present during a fleet action. (A German destroyer usually carries six torpedoes. Few British destroyers carried more than four torpedoes up to the year 1917, although they mounted a much heavier gun armament than their enemies.) Our fears were realized, particularly during the first two years of the war.

We had not built an adequate number of destroyers in the years before the war to meet the many needs that only this class of vessel could fulfill, particularly as the enemy developed his submarine warfare against merchant ships. (This with regard to the superiority in numbers of the German fleet at the end of May, 1916.)

Although, in spite of the great destroyer program initiated by Lord Fisher at the end of 1914, the shortage of destroyers was most seriously felt throughout the whole war. The conditions would probably have been even worse had the prewar program of light cruisers been sacrificed to maintain the output of destroyers to the standard desired by the Admiralty.

They (the Germans) possessed, in comparison with the uses for which they were required, almost a superfluity of destroyers, certainly a superfluity as compared with ourselves, and they could not have put them to a better use than in an attack on Scapa Flow during the early months of the 1914-15 winter.

Touching upon the ordnance and the shell used by the British in that engagement, Admiral Jellicoe says:

The Jutland battle convinced us that our armor-piercing shell was inferior in its penetrative power to that used by the Germans.

With one of the old type of armor-piercing shells of a particular caliber as used at Jutland the shells would, with oblique impact at battle range, break up whilst holding a certain thickness of plate, and the shell could not, therefore, reach the vitals of the enemy's ships.

Had our ships possessed the new type of armor-piercing shell at Jutland, many of the enemy's vessels, instead of being only damaged, would probably not have been able to reach port.

As against the additional protection of the German ships our vessels of contemporary design were provided in all cases with heavier turret guns, whilst the German ships carried heavier secondary armament.

With reference to armor and the relative protection of British and German battleships, Lord Jellicoe says:

The main belt and upper belt armor of the German ships was in nearly all cases thicker than in their British contemporaries, whilst the protection at the bow and stern was in all cases greater in the German ships.

The deck protection in the German ships was usually greater than in the British vessels and the water-tight divisions more complete.

The German ships carried a greater number of submerged torpedo tubes than the British vessels.

(The next five paragraphs refer to battle cruisers in Battle of Jutland.)

The earlier German battle cruisers were of greater displacement than their British contemporaries.

Five of our nine battle cruisers were without protection above the main deck, the whole of the German vessels being provided with protection to the upper decks.

The German ships carried a greater weight of armor than their British contemporaries.

The German vessels possessed thicker armor in all positions, including deck protection, as well as more complete water-tight subdivisions.

The German ships carried a greater number of submerged tubes than the British ships.

It was well known at the Admiralty that the German superiority lay in greatly increased protection, combined with heavier torpedo armament.

The German ships carried a much greater weight of armament than their British contemporaries.

All German dreadnaughts were provided with side armor to the upper deck, while nine of the earliest British dreadnaughts were provided with armor protection to the main deck only, thus rendering them far more open to artillery attack.

Admiral Jellicoe, with a frankness that shows he is far from making claims for perfection, points out that the Germans had certain other advantages; for example, he says:

It was, however, known to me that neither our searchlights nor their control arrangements were at this time of the best type. The fitting of director-firing gear for the guns of the secondary armament of our battleships (a very important factor for firing at night) had also only just been begun, although repeatedly applied for. The delay was due to manufacturing and labor difficulties.

The greater efficiency of German searchlights at the time of the Jutland action, and the greater number of torpedo tubes fitted in enemy ships, combined with his superiority in destroyers, would, I knew, give the Germans the opportunity of scoring heavily at the commencement of such action.

There is no doubt at all that the German organization for night action was of a remarkably high standard. In the first place, the use of star shell, at that time unfamiliar to us, was of the greatest use to them in locating our destroyers without revealing their own positions; and, secondly, their searchlights were not only very powerful (much more so than ours), but their methods of controlling them and bringing guns and searchlights rapidly onto any vessel sighted was excellent.

- The lessons which the British Navy learned by the Battle of Jutland were at once applied to their ships, the Admiralty wisely hastening to take advantage of any superiority noted in the German ships. How this was promptly done, Admiral Jellicoe tells us in the following extract from his work:

The ships which had received damage in the Jutland action had to be repaired without delay. * * * Whilst under repair, the opportunity was taken of effecting certain alterations which experience gained in the action had shown to be desirable. The principal points affecting material to which attention was directed were:

(a) The urgent need for arrangements to prevent the flash of cordite charges, ignited by the explosion of a shell in a turret or in position between the turret and the magazine, being communicated to the magazine itself. It was probable that the loss of one, if not two, of our battle cruisers was due to this cause, after the armor had been pierced.

(b) Better measures were required to prevent the charges of small guns from being ignited by bursting shell, and to localize any fires due to this cause, in the case of guns of the secondary battery in large ships, and the main armament in small ships.

(c) Increased deck armor protection in large ships had been shown to be desirable in order that shell or fragment of shell might not reach the magazine.

(d) The pressing need for a better armor-piercing projectile with an improvised tube was also revealed.

(e) Improved arrangements for flooding magazines and drenching exposed cartridges had to be made.

Some delay occurred in improving our range finders. The majority had been installed in the fleet before the great increases in the range had come about as the result of experience during the war.

Discussing fully the condition of his ships and the defects which weakened the British fleet Admiral Jellicoe writes, October, 1914:

The Grand Fleet was considerably weakened at this time apart from the loss of the *Audacious*.

(NOTE.—This reference is to one of the most modern of the British battleships sunk by a mine in October.)

The *Ajax* had developed condenser defects; the *Iron Duke* had similar troubles; the *Orion* had to be sent to Greenock for examination of the turbine supports, which appeared to be defective; the *Conqueror* was at Devonport refitting, and the *New Zealand* was in dock at Cromarty. The *Erin* and *Agincourt*, having been newly commissioned, could not yet be regarded as efficient, so that the dreadnaught fleet only consisted of 17 effective battleships and 5 battle cruisers; the German dreadnaught fleet at the time comprised 15 battleships and 4 battle cruisers, with the *Blucher* in addition. The margin of superiority was, therefore, unpleasantly small in view of the fact that the High Sea Fleet (German) possessed 88 destroyers and the Grand Fleet (British) only 42.

First part of November, 1914: The rear admiral commanding the tenth cruiser squadron reported that all his ships, which were very old, were showing increasing signs of needing thorough repair at a dockyard, and arrangements were put in hand for sending them, three at a time, to the Clyde. In addition, the *Antrim*, of the third cruiser squadron, reported condenser defects; the *Drake*, of the sixth cruiser squadron, was at Scapa making good defects, which were constantly developing, and the *King Alfred* and *Leviathan*, of the same squadron, were refitting at dockyard ports.

During the gale on November 12 the ships of the tenth cruiser squadron—the old *Edgar* class of cruisers—which were on patrol between the Shetland and the Faroe Islands had suffered much damage, many of them showing signs of leaking and straining; boat and ventilators were washed away; and water in large quantities found its way below. It became evident that these old ships were not sufficiently seaworthy to withstand the winter gales of northern latitudes without first undergoing a thorough repair, and arrangements were made for sending them, three at a time, to the Clyde for survey and refit.

On December 12, 1914, serious defects in the boilers of the *Liverpool* became apparent and the speed of the ship was limited to 17 knots. This defect, which first showed itself in this ship, gradually affected the boilers of the same type in all ships so fitted, as they experienced a certain degree of wear, and from this time onward there was

usually one, and occasionally two, light cruisers paid off for the purpose of carrying out the necessary repairs which occupied a period of two or three months. This reduction in the number of efficient light cruisers was serious at a time when our numbers compared badly with those possessed by the enemy.

Lord Jellicoe, with equal frankness, tells of certain disadvantages other under which the British Navy labored, saying as to what is now considered as all important:

The comparative inefficiency of the wireless installation in our submarines, and to a lesser extent in our destroyers, was one of the disadvantages which we had to face during the first two years of war.

Late in 1916 he wrote that "it did not appear that new proposals and inventions for dealing with the submarine campaign were being pushed forward with the necessary rapidity," and he added: "Generally it seemed doubtful whether the danger confronting us would be successfully combatted."

But I must not quote further, except to add two paragraphs which apply to the United States even greater than to Great Britain:

1. In spite of the continual rise in the estimates there was never sufficient money to meet all the Admiralty's needs.
2. Naval policy is pursued in peace conditions under inevitable disadvantages in a democratic country, because there are many claims on the exchequer.

Until 1916 the United States had never entered upon a really constructive and systematic program for its Navy, and before that date appropriations were made from year to year. In 1912, for example, Congress authorized two dreadnaughts, in 1913 only one, in 1914 three, in 1915 two, and in 1916 authorized the three-year program for the construction of 156 ships to cost over \$500,000,000. None of these ships, authorized in August, 1916, were ready when we entered the war, though the contracts were made for a number of them immediately after the naval bill had become a law, August 29, 1916.

The CHAIRMAN. Does that refer simply to the 1916 class, or to the others that were authorized in 1914, 1915, and 1916?

Secretary DANIELS. None of these ships were authorized in the 1916 program; but up to that time "there never was sufficient money to meet all the Navy's (Admiralty's) needs," because "in a democratic country there are many claims on the Treasury (exchequer)."

WHAT GERMANY LEARNED.

We have not yet had the same frank and refreshing statement from the high German naval officials that Lord Jellicoe has given. In due time all will be told, and we shall then learn from the German authority wherein they found their ships inferior to the British and how upon their return to base they made the improvements which their failure to win the Battle of Jutland showed them should be made. We shall no doubt see then that they learned lessons of importance from British superiority in certain particulars.

WHAT OUR NAVY LEARNED.

We know that when we entered the war our department requested our Allies to furnish us with all they had learned in their larger experience, and orders were given immediately to adopt all the improvements that would give greater efficiency to our ships. We

also adopted in operation and tactics all the new and better things war had demonstrated were good.

All this teaches, and I use these statements only to show that no navy is perfect either in the construction of ships, in its ordnance, in its operation, or in its personnel, and that every navy that is open-minded learns not only from its Allies but also from its foes.

This lesson also teaches that our General Board is acting wisely in studying all the lessons of the war and that these lessons are being applied by the department to make our Navy equal in every respect to any navy in the world.

Finally, the illuminating and frank statement by Admiral Jellicoe shows that the criticisms of any lack of perfection in our Navy—material, personnel, and operation—apply quite as truly to the navies of countries which have spent millions to our thousands, and which had felt for years the compulsion of readiness to fight a near neighbor any day.

THE CRITICAL AREA—AS AMERICAN DESTROYERS REACHED QUEENSTOWN, BRITISH DESTROYERS WERE WITHDRAWN.

It is far from my purpose to criticize the British Admiralty or their conduct of the war. It was a pleasure to me and to the Navy to work with them as "comrades of the mist," and I regret that the unjustifiable charge against American naval operation by Admiral Sims makes it necessary to make a statement as to the utilization of certain ships of the British Fleet. It is done in justification of the American Navy. His sharp criticism in that the Navy Department did not at once send all its destroyers and like craft into what he calls the "critical area" based on Queenstown, and he charges because of this American failure 500,000 lives were lost, \$15,000,000,000 destroyed, and the war was prolonged several months. I call the attention of the committee that this wild and unfounded statement has been declared "preposterous" by some, and without foundation by every admiral who held responsible positions during the war and by Capt. Pratt, Assistant Chief of Operations; but of that I treat more fully elsewhere in my statement.

Was the base at Queenstown the only "critical area," and is Admiral Sims justified in saying all our destroyers would have been sent immediately into that "critical area" and kept there? We sent six before Admiral Sims suggested sending any, and by July had 34 out of our possible 50 in that "critical area."

If it was necessary to concentrate all our destroyers immediately at that point to prevent the loss of 500,000 lives and \$15,000,000,000 of money, all fair-minded men will ask: Why did not the British Navy concentrate its destroyers at that "critical area" and thus help save all those lives and those billions of dollars? What did the British Admiralty do with reference to that "critical area" in those days when shipping was being sunk so fast? Admiral Sims has told you that they actually withdrew their destroyers from that "critical area" when our destroyers arrived, at a time when tonnage was being sunk at the peak of destruction in the region around Queenstown base. In answer to an inquiry as to the number of destroyers Great Britain had in the summer of 1917 (the period in which Sims

says sinkings were greatest), the Chief of the Office of Naval Intelligence furnishes this memorandum:

WASHINGTON, April 22, 1920.

Memorandum for the Secretary of the Navy:

Great Britain had 361 destroyers in commission on June 30, 1917, of which 68 were old destroyers which had been launched before 1902, and 293 were newer destroyers, that is, launched after 1902.

A. P. NIBLACK.

In answer to an inquiry as to how many British destroyers were based on this "critical area," the Chief of the Office of Naval Intelligence furnishes this memorandum:

WASHINGTON, April 22, 1920.

Memorandum for the Secretary of the Navy:

The following is a tabulated statement of the British destroyers under the command in chief at Queenstown, Ireland, based on Queenstown during the period named:

April 1, 1917, none; May 1, 1917, none; June 1, 1917, 1; July 1, 1917, 4; August 1, 1917, 2; September 1, 1917, none; October 1, 1917, none.

A. P. NIBLACK.

According to Sims the sinkings were greatest from April to the fall of 1917, so serious that he charges the Navy Department's failure to send all its ships there in April and the immediately succeeding months (we sent 34 out of our total of 50) cost 500,000 lives. And yet—and this fact is perfect refutation of his sweeping charges—the British did not base a single one of their destroyers on Queenstown either in April or May, 1917, only one in June, four in July, two in August, and not a single one either in September or October, 1917. We sent 34 into that "critical area" where millions of tons of shipping were sunk, and as our destroyers arrived British destroyers were withdrawn, while the destruction of tonnage was greatest.

If a few more destroyers could have saved 500,000 lives (an absurd and ridiculous statement), I do not doubt that the British Admiralty would have strained a point to have sent at least one to the critical area in April and May, when they had none, and more in June when they had only one. We had 34 in July and the British increased to four in that month. They sent two away in August, and they withdrew all they had in that "critical area." The British had 361 destroyers in June, 1917. I can not believe the Admiralty would not have taken some of the 361 to send into the "critical area" if they had believed that by so doing they could have shortened the war four months, saved 500,000 lives, and saved \$15,000,000,000. In comparison with doing so much in that area no other destroyer duty could have done so much.

If Admiral Sims's wild and reckless statement is correct, and his figures of our part in the war accurate, the British Navy's failure to send destroyers into that "critical area" makes it responsible for 95 to 97 per cent of the 500,000 lives lost and the American Navy responsible for only from 3 to 5 per cent. But both navies are free from this indictment, for if both had sent all the destroyers they had to that Queenstown area it would have required 24,589 more destroyers to have patrolled it sufficiently to save all those lives. In answer to a question asked in London by Chairman Padgett, "What can Congress do to help?" Admiral Sims, in the summer of 1918, answered: "Send us 25,000 destroyers." The failure to send 25,000 destroyers can not be laid at the door of the Navy Department when Great

Britain and the United States together after years of building had only 411 between them.

SIMS LET BRITISH ADMIRALTY DETERMINE AWARDS TO UNITED STATES NAVAL VESSELS—THEY GOT SCANT CREDIT FOR SINKING OR DAMAGING SUBMARINES.

Mr. Chairman, instead of making his own independent inquiry into reports of our commanders that submarines had been damaged or sunk, Admiral Sims, according to the statement issued by his own headquarters, submitted such reports to the British Admiralty and accepted the Admiralty's awards.

Regarding "Encounters with enemy submarines," the "Summary of activities of United States naval forces operating in European waters," compiled by and issued from Admiral Sims's headquarters in London, states:

It can be easily understood that it was very difficult during the war to verify the results of attacks on enemy submarines. A track of enemy submarines, while operating at sea, was kept by plottings of sightings and sinkings, by intercepted wireless messages, and by other information from secret service sources. However, unless prisoners or unmistakable wreckage was obtained following an attack it was practically impossible to definitely determine the results of the attack.

I call your attention particularly to this paragraph, now [continuing reading]:

Reports of all attacks by United States Navy vessels were submitted to the British Admiralty the same as in the case of British ships and awards of British Admiralty were accepted.

A total of over 256 attacks by United States vessels occurred. In 183 of these cases there was definite chart evidence of a submarine in the vicinity. In the other cases doubt existed.

It is often very difficult to determine the result of an attack, and the official classification is sometimes found to be in error; therefore, the following figures are certainly not exaggerated and may be somewhat underestimated. United States vessels have been officially accredited with 24 successful attacks on enemy submarines. The degree of success in these attacks varies between "slightly damaged" and "known sunk."

OF 256 ATTACKS REPORTED, 24 WERE CLASSED AS SUCCESSFUL.

That is, out of 256 attacks on submarines by the United States naval vessels under his command, in 183 of which cases there was "definite chart evidence of a submarine in the vicinity," they were given credit for only 24 "successful attacks," most of these being listed by the admiralty as resulting in the U-boat being "possibly slightly damaged."

This "summary" gives the following "list of ships participating in these attacks, the names of their commanding officers, and the classification of the attacks."

O'Brien, Lieut. Commander C. A. Blakely, June 16, 1917. "Possibly slightly damaged." (Admiralty classification.)

Trippe, Lieut. Commander Giffen, July 9, 1917. "Possibly slightly damaged." (Admiralty classification.)

Warrington, Lieut. Commander G. W. Kenyon, July 13, 1917. "Possibly slightly damaged." (Admiralty classification.)

Jenkins, Lieut. Commander H. D. Cook, July 17, 1917. "Possibly slightly damaged." (Admiralty classification.)

Wadsworth, Lieut. Commander J. K. Taussig, July 21, 1917. "Possibly slightly damaged." (Admiralty classification.)

Cummings, Commander George Neal, July 26, 1917. "Possibly slightly damaged."
Wilkes, Lieut. Commander J. C. Gremont, July 26, 1917. "Possibly slightly damaged." (Admiralty classification.)
Wardworth, Commander J. K. Taussig, Lieut. Commander Giffen, July 29, 1917. "Possibly slightly damaged." (Admiralty classification.)
Benham, Lieut. Commander J. R. Gay, July 30, 1917. "Probably seriously damaged." (Admiralty classification.)
Purker, Commander W. Brown, August 3, 1917. "Possibly seriously damaged." (Admiralty classification.)
Jacob Jones, Lieut. Commander D. W. Bagley, September 5, 1917. "Possibly slightly damaged." (Admiralty classification.)
McDougal, Commander W. T. Conn, September 9, 1917. "Possibly slightly damaged." (Admiralty classification.)
Davis, Commander W. V. Tomb, September 21, 1917. "Possibly slightly damaged." (Admiralty classification.)
Pathfinder, September 27, 1917. "Possibly slightly damaged." (Admiralty classification.)
Conyngham, Commander A. W. Johnson, October 19, 1917. "Possibly slightly damaged." (Admiralty classification.)
Fanning, Lieut. A. S. Carpenter; *Nicholson*, Commander F. D. Berrien; November 17, 1917. "Known sunk, U-58." (Admiralty classification.)
Nomz, Lieut. Commander L. R. Heahy; *Wakiva*, Lieut. Commander G. E. Davis; *Piqua* (ex-*Kanawha II*), Lieut. Commander H. D. Cooke; November 28, 1917. "Probably seriously damaged."
Allen, Commander H. D. Cooke, February 2, 1918. "Possibly slightly damaged." (Admiralty classification.)
Reid, Lieut. Commander C. C. Slayton, March 18, 1918; *Isabel*, Lieut. Commander H. E. Shoemaker. "Possibly slightly damaged."
Stewart, Lieut. H. S. Haislip, April 23, 1918. "Probably seriously damaged."
Porter, Lieut. Commander W. H. Lee, April 28, 1918. "Probably seriously damaged." (Admiralty classification.)
Patterson, Lieut. S. S. Lewis; *Beale*, Lieut. Commander C. T. Blackburn; *Burrows*, Lieut. Commander H. V. McKittrick; *Allen*, Commander H. D. Cooke; May 19, 1918. "Possibly slightly damaged." (Admiralty classification.)
Christabel, Lieut. Commander M. B. McCord, May 21, 1918. "Submarine interned at Santander, U-boat 56, as result of attack." (Admiralty classification.)
Lydonia, Lieut. Commander R. P. McCullough; *H. M. S. Basilisk*; May 8, 1918. "Known sunk, U-boat 70." (Admiralty classification.)
Sterrett, Lieut. Commander A. S. Farquhar, June 1, 1918. "Possibly slightly damaged."
United States submarine *A L 2*, Lieut. P. F. Foster, July 10, 1918. "Known sunk, U-boat 65." (Admiralty classification.)
Subchasers, *Corfu*, Ensign G. J. Luvy, U. S. N. R. F. 95; Ensign E. Hazard, U. S. N. R. F. 179; Ensign J. M. Beverly, U. S. N. R. F. 333; July 10, 1918. "Possibly sunk." (Admiralty classification.)
Sub. chasers *Plymouth*, 84 Ensign E. F. Williams, U. S. N. R. F.; 85 Ensign A. B. Baker, U. S. N. R. F.; 86 Ensign G. H. Lane, U. S. N. R. F.; July 10, 1918. "Possibly slightly damaged." (Admiralty classification.)
Tucker, Lieut. Commander W. H. Lassing, August 8, 1918. "Possibly sunk."
Paducah, Capt. W. T. Wheeler, C. G., September 9, 1918. "Possibly slightly damaged." (Admiralty classification.)

It will be noted that there are only three cases classed as "known sunk." Of these but one full credit for sinking a submarine is given, that to the *Fanning* (assisted by the *Nicholson*), which proved conclusively the sinking of the U-boat 58 by bringing in the German crew as prisoners. The *Lydonia* shares with the British ship *Basilisk* the credit of sinking the U-boat 70. The United States submarine *A L 2* was not credited with actually sinking the U-boat 65, which was wrecked supposedly by the explosion of one of her own torpedoes, but the American submarine, which by a daring crash dive prevented the German submarine from recovering or coming to the surface, was credited with witnessing the sinking of the U-boat 65.

In the British Admiralty's final "submarine losses return," issued in January, 1918, which covered losses of all German submarines during the war, two credits are given United States vessels, as follows:

U. 58—17-11-17, 5137 N., 0812 W. (U. S. S. *Fanning*).

U. B. 70—8-5-18, 3808 N., 0302 E. (H. M. S. *Basilisk* and U. S. S. *Lydonia*).

The U. B. 65, which one might judge from the Sims's headquarters list, was credited to the United States submarine *A L 2*, is listed thus:

U. B. 65—10-7-18, 5107 N., 0942 W. (Accident.)

Elsewhere in that report it was stated that the sinking of the U. B. 65, being confirmed from various sources, the previous classification, "U. B. 65, July 10, 1918; explosion witnessed by *A L 2*. Probably sunk," had been altered to "Known."

LIST REPORTED BY LONDON HEADQUARTERS.

The following dispatch from United States naval headquarters in London, January 29, 1920, was received in response to a request from the Bureau of Navigation to "Submit list of United States vessels credited with destroying or damaging enemy submarines":

JANUARY 29, 1920.

From: Simsadus, London.

To: Opnav.

4027 your 6403-1710, Admiralty classification of actions of American ships destroying or damaging, latitude and longitude given to nearest degree. All latitudes north longitudes west except when stated otherwise.

Known: U. S. S. *Fanning* and steamship *Suffolk*, November 17, 1917, latitude 52°, longitude 8°; U. S. S. (S. P.) *Lydonia* (with H. M. S. *Basilisk*), May 8, 1918, latitude 38°, longitude 3° east.

Probably seriously damaged: U. S. S. *O'Brien*, June 16, 1917, 12' south of Ballycotton Light; U. S. S. *Cummings*, June 26, latitude 47°, longitude 6°; U. S. S. *Wadsworth*, July 29, latitude 49°, longitude 11°; U. S. S. *Benham*, July 30, latitude 50°, longitude 7°; U. S. S. *Parker*, August 3, latitude 52°, longitude 15°; U. S. S. *Porter*, April 28, 1918, latitude 49°, longitude 6°; U. S. S. *Christabel* (S. P.), May 21, latitude 47°, longitude 3°; *Conyngham*, October 19, latitude 48°, longitude 9°.

Possibly slightly damaged: U. S. S. *Winslow*, June 11, 1917, latitude 51°, longitude 9°; U. S. S. *Cummings*, July 18, latitude 52°, longitude 12°; *Navajo*, July 5, latitude 50°, longitude 3°; U. S. S. *Tripp*, July 9, latitude 51°, longitude 12°; U. S. S. *Warrington*, July 13, latitude 51°, longitude 9°; U. S. S. *Jenkins*, July 17, latitude 51°, longitude 13°; U. S. S. *Wadsworth*, July 21, latitude 50°, longitude 16°; U. S. S. *Wilkes*, July 26, latitude 47°, longitude 13°; two destroyers (acting with airship C 2 and two British destroyers), August 9, 15' southeast of Lizard Head, England; *Jacob Jones*, September 5, latitude 52°, longitude 7°; U. S. S. *McDougall*, September 9, latitude 50°, longitude 5°; U. S. S. *Davis*, September 21, latitude 51°, longitude 8°; U. S. S. *Pathfinder* (Coast and Geodetic Survey), September 27, latitude 43°, longitude 4° east; steamship *Trinidadian*, January 5, 1918, latitude 52°, longitude 7°; U. S. S. *Allen*, February 2, latitude 54°, longitude 5°; Seaplane 1616, May 16, latitude 51°, longitude 5°; U. S. S. *Allen*, U. S. S. *Patterson*, etc., May 19, latitude 53°, longitude 5°; S. C. No. 84, and S. C. No. 86, July 10, latitude 50°, longitude 5°; three units submarine chasers; steamship *Waalhaven*, latitude 50°, longitude 6°; U. S. S. *Paducah*, with H. M. S. *Sweetbriar*, September 19, latitude 39°, longitude 5° east; seaplane from Lough Foyle Naval Air Station, October 19, latitude 56°, longitude 8°.

Total, 2, 8, and 21. (1130-497.)

6403-1700, from Bunav: Submit list United States vessels credited with destroying or damaging enemy submarines.

So that is the credit our forces received—two "known sunk," one by the *Fanning*, which could not be questioned, as the crew was captured; one by the *Lydonia* assisting the British ship *Basilisk*; 8 "probably seriously damaged"; 21 "probably slightly damaged."

SOME EXAMPLES OF ENCOUNTERS OF UNITED STATES NAVAL VESSELS
WITH SUBMARINES.

Gentlemen, don't for a moment conclude, from the few credits awarded, that our destroyers and other vessels in European waters did little effective work against submarines. The fact that 256 attacks were reported proved that they were "going after the subs" constantly, and their reports show not a few very lively encounters, in spite of Sims's statements that our Navy "was not in this war in a fighting sense," and that our vessels were merely "serving as motor lorries behind the Army."

The reports of submarine encounters would make a volume, and I can assure you that some day they will be printed, and the officers and men of our Navy will be given due credit for the work they did. If I had had any idea that Admiral Sims had not provided for this, he would have been sent a peremptory order to make his own investigation of each case, and forward to us his conclusions. The United States Navy is not accustomed to having others decide what credits shall be awarded to its own men and vessels, and I know of no instance in which any other navy has allowed this. In making this statement I have no criticism of the British Admiralty. It was not their business to keep check of attacks by naval vessels. It was our business. It was Admiral Sims's neglect which up to the present time has denied the honor and the reward which belongs to commanders of American ships.

Below are given reports of a few of the encounters of United States destroyers and patrol vessels with submarines, which will give you some idea of the work they did:

U. S. S. "O'BRIEN,"

QUEENSTOWN, IRELAND. June 19, 1917.

From: Commanding officer.

To: Commander in chief, coast of Ireland.

Subject: Report of contact with enemy submarines.

1. At 4.21 in the afternoon of June 16, 1917, in the approximate position 12 miles south of Ballycotton Light, convoying the steamship *Elysia*, a periscope of a submarine was sighted broad on the starboard bow, distant about 800 yards, the submarine being about two points on the starboard bow of the convoy. Speed was immediately increased to 20 knots and this ship was headed toward periscope, which about this time disappeared. The ship was steadied on the approximate position and after a very short period of time the periscope was again sighted dead ahead, distant opposite direction to the *O'Brien*.

The periscope showed for only a few minutes. A few seconds later the lookout in the foretop called out that he saw the bulk of the submarine in the water passing aft close on our starboard side. He stated later that he thought we were going to ram it. He could clearly see the submarine and watched it gradually disappear below the surface until it was abaft the after deckhouse. At this moment a depth mine was let go and it is believed that the depth charge came within the prescribed limit where serious damage results from the explosion. The spot was circled immediately after the explosion, but no evidence of the submarine could be found. After circling about the spot for a few minutes, the *O'Brien* resumed her position ahead of the steamship *Elysia* and continued to escort her.

C. A. BLAKELY.

ADMIRAL SIMS'S GENERAL REPORT CONCERNING SUBMARINE SITUATION
IN EUROPEAN WATERS.

JUNE 20, 1917.

12. Area Queenstown, Irish Sea.

It is reasonably certain now that the *O'Brien* destroyed the submarine mentioned. She was escorting a valuable ship when the two periscopes of a submarine were observed about 800 yards on her bow. She altered course immediately, headed for it, and increased to full speed. The periscopes were again seen about a minute later about 100 yards dead ahead, the submarine having apparently attempted to avoid the *O'Brien* and torpedo her escort astern of her. From the last position sighted, the submarine apparently started to dive, and must have barely escaped being rammed.

The lookout on the top observed her hull distinctly alongside the *O'Brien* and gradually disappearing as she proceeded downward, on almost exactly the opposite course to the *O'Brien*. A depth charge was dropped when the submarine was under the after deckhouse, and although the *O'Brien* was making 20 knots by this time, less than three minutes after the submarine had been sighted, the explosion of the depth charge gave the ship a very severe shaking. The *O'Brien* circled over the spot, but saw no evidence of damage. A British destroyer passing over the same spot nearly three hours later found and reported large patches of strong-smelling oil. The *Cushing*, on the following morning, passed the same area and also reported a large amount of oil. This incident occurred just off the Queenstown entrance and was unfortunately one of those cases the exact results of which can not be determined. (Credit given by Admiralty: "Possibly slightly damaged.")

Now, Admiral Sims says it is reasonably certain that that submarine was destroyed. The British Admiralty says, "Possibly slightly damaged." I prefer the statement made by Admiral Sims on June 20, 1917, at the time when all the evidence of the officers was before him, to the later report of the British Admiralty, "Possibly slightly damaged," and I think Americans are entitled to have an American Admiral pass upon the actions of American ships rather than to leave it to the British Admiralty, which takes it up afterwards, and makes it "slightly damaged," what Admiral Sims says it was "destroyed."

Then here are the reports upon the U. S. S. *McDougal*, *Conygham*, *Parker*, and *Porter*. I will not stop to read the reports. In the case of the *McDougal*, the report says that it was destroyed. The British Admiralty says "possibly slightly damaged."

In the case of the U. S. S. *Conyngham*, the report is that it was destroyed. The credit by the Admiralty is "possibly slightly damaged."

In the case of the U. S. S. *Parker*, an extract from the war diary of Commander W. Brown says "probably sunk." The credit given by the British Admiralty is "probably seriously damaged."

In the case of the U. S. S. *Porter*, the report was "probably sunk." The credit by the Admiralty was "probably seriously damaged."

In the case of the *Stewart*, the report was that the submarine was destroyed, and the credit given by the Admiralty was "probably seriously damaged."

The credit given by the Admiralty in the case of the *Warrington* was "probably slightly damaged."

In the case of the U. S. S. *Benham*, Admiral Sims says:

The force commander transmits with pleasure to the commanding officer of the U. S. S. *Benham* the original of a letter received by him from the Admiralty concern-

ing the engagement between the *Benham* and an enemy submarine on the 30th of July.

2. In publishing this letter to the officers and crew of the *Benham*, please express to them my admiration and gratification for this example of the excellent organization and spirit existing on board.

The credit given by the Admiralty is "probably seriously damaged."
These reports are as follows:

U. S. S. "McDOUGAL," September 8.

[Extract from Admiral Sims's general report, Sept. 15, 1917.]

U. S. *McDougal*: Successful protection of two meeting convoys against enemy submarine; her possible destruction.

McDougal (Commander A. P. Fairfield) (of *Denver*, six New York convoy) at 1.21 a. m. sighted submarine on surface, bearing 15° on starboard bow. Gave chase at full speed. Submarine submerged 500 yards ahead of this ship. Dropped two depth charges near spot where submarine submerged at an interval of about 5 seconds apart. Circled around spot; then noticed oil slick, but could see nothing further during darkness.

At the time of dropping depth charges, a northward bound convoy was sighted in a position directly ahead of submarine, distant one-half mile. One or more ships of convoy were undoubtedly saved by the fact that the submarine was forced to submerge hastily. Submarine believed to be damaged or sunk; no evidence obtainable. At 11 a. m. large patch of oil on the surface of the water about 1 mile in diameter. No wreckage was seen.

NOTE.—North-bound convoy was from France to Wales, and H. M. S. *Duke of Edinburgh* *McDougal*, in special report, adds: Was guarding left flank of convoy. Submarine when first sighted was about 1 mile, directly in path of moon's rays, on smooth sea. Doubt at first existed as to whether or not she were a patrol boat. To tell was difficult, as craft was end on to the *McDougal*. The chase, with crew at quarters, lasted 2½ minutes before it was proved a submarine. A second later she submerged. Left a swirl in the water which *McDougal* reached in a few seconds and ran through. Both charges functioned properly. The first was dropped as swirl passed under amidships section of ship; second, just as the stern passed clear of swirl. At time of submergence submarine appeared to be heading at a very slight angle to left of *McDougal* course. The helm was used to bring the ship over slightly to the left edge of the swirl, in order to make allowance for dropping charges, full port helm was used to circle and note results. Oil was seen on the surface, but low visibility made it impossible to determine amount. Ship was forced, after two or three circles, to rejoin convoy.

(Credit by Admiralty: "Possibly slightly damaged.")

U. S. S. *CONYNGHAM*, October 19, 1917.

During the afternoon *Conyngham* hailed H. M. S. *Orama* and suggested that due to submarine reported ahead convoy change course. This was not thought advisable by the commanding officer of H. M. S. *Orama* and convoy proceeded on original course.

At 5.30 p. m. *Parker*, in position 48° N. 09-20 W., escort—about 2 miles ahead of convoy, reported sighting discolored water (brownish).

At 5.50 p. m., while *Conyngham* was alongside starboard side of *Orama* passing her recognition signals, a torpedo crossing *Clan Lindsay's* bow, struck H. M. S. *Orama* in port side, about No. 3 hold. A distinct report was heard, followed immediately by cloud of smoke arising from *Orama* forward of her bridge. *Orama* listed to port and began to sink by the bow. *Conyngham* by radio ordered convoy to disperse. *Conyngham* sounded general quarters and went full speed ahead and crossed *Orama's* bow by going full left rudder, then proceeded to make circle between VA and VR columns. When circling a wake was sighted on starboard quarter. A periscope about 1 foot emerged visible for few seconds only was seen in this wake. A short time afterwards a periscope was sighted sharp on our starboard bow. This periscope submerged almost immediately, but wake was plainly visible. *Conyngham*, then a few yards from the periscope, headed for same and dropped depth charge over the wake. An explosion resulted. Large quantities of discolored water was seen to rise in the air and a number of crew and officers distinctly made out a quantity of wreckage, one piece of which might have been the wireless mast of the submarine, when *Conyngham* circled near the spot of the explosion.

(Credit by Admiralty: "Possibly slightly damaged.")

U. S. S. "PARKER"—Commander W. Brown.

[Extract from War diary August 3, 1917.]

On patrol area. At 2.12 took over escort. Steamship *Hobein* and steamship *Civilian*. Course of convoy 106° true, speed 10½ knots. At 8.25 a. m., turned over convoy to U. S. S. *Fanning* and *Perkins* and returned to patrol area. At 12.30 received approximate location of submarine in latitude 52.30 N., longitude 15.10 W. Went full speed, 20 knots, and set course for this position. At 2, having passed through position, began making 10-mile circles with the idea of locating submarine reported. At 2.15 sighted steamer bearing 300°, distance about 10 miles. At the same time received S. O. S. from *Newby Hall* in that position. Went full speed, 25 knots, and on approaching steamer noticed she had a list to port. Fired two shots at extreme range, 13,500 yards, just clear of port side of steamer. On arriving at steamer, found it to be steamship *Newby Hall* and that the submarine had gone down 6 miles NNW. from the *Newby Hall's* then position. Went to this position and steered circles for half an hour, sighting nothing; returned to escort steamer. At 4.10 turned *Newby Hall* over to U. S. S. *Burrows*, and returned to look for submarine. At 4.35 sighted steamer practically in position where submarine was reported. This turned out to be the steamship *Rio Verde*. Took the *Rio Verde* under escort, course 106° true, speed 8½ knots.

At 6.50 p. m., sighted submarine bearing north true. Changed course immediately to north true, and when about 8,000 yards from submarine it submerged. Continued course, and on reaching position noticed a very clearly defined oil slick tending north true. Got in the middle of this and followed it down. Could see the end of the oil slick clearly defined and that it appeared to be moving in the same direction and narrowing. On reaching the end of the slick saw submarine underneath the end of the bridge. Dropped two depth charges on the submarine and from all evidence she was very probably sunk. There was practically simultaneous explosion of the depth charges followed by another explosion. There was discovered on the surface of the water air bubbles, oil bubbles, and a heavy scum of oil and particles of what appeared to be cork. Remained in vicinity for one hour and a half. Sea was smooth, wind light airs, depth of water about 1,200 fathoms. At 8.40 set course 122° true, speed 20 knots. At 11.26 set course for Bull Rock, 107° true, speed 20 knots. Returning to Berehaven in accordance with schedule.

(Credit given by Admiralty: "Probably seriously damaged.")

U. S. S. "PORTER."

At 8.46 p. m., April, 1918, in latitude 49.07 N., longitude 5.53 W., while this vessel was in position as right flank ship on sounding line in company with *Duncan*, *Cummings*, *Conyngham*, *Sterrett*, and *Burrows*, the foretop lookout reported a periscope of a submarine about 1,000 yards on starboard bow heading in a southeasterly direction. Course of this vessel 329° true, wind 3, sea smooth.

We had, about 15 minutes before, passed close ahead of a convoy composed of seven large merchant vessels escorted by several British destroyers, one of which was towing a kite balloon. The submarine was heading for a favorable position to make an attack and was going at a speed estimated to be 9 to 11 knots. Convoy at this time was distant about 3 miles, bearing 90° true and steering in a southeasterly direction.

The officer of the deck turned toward the periscope at full speed and, with the assistance of the lookout, steered the ship toward the submarine. In the meanwhile the commanding officer arrived on the bridge and continued the maneuver commenced by the officer of the deck. The commanding officer steadied the ship on a course directly astern of the submarine, which was still showing its periscope, and we rapidly overhauled it. On arrival at a position about 30 yards from the bow, the periscope disappeared. Continued on course, and on arrival of stern at position about 20 yards ahead of point where periscope was last seen, launched two depth charges from hydraulic release and two from the Thornycroft throwers; immediately afterwards put rudder 20° right and continued pattern in accordance with diagram. Launched altogether 23 depth charges, all of which functioned properly with the exception of the seventh and two or three subsequent ones.

Returned to the spot, but as darkness had set in was unable to see any result. Ship remained in vicinity until 8.30 a. m., April 29, 1918. At daylight a large number of dead fish were seen with a great deal of small driftwood and a considerable quantity of oil. Owing to fresh northeasterly breeze it was difficult to note the nature of the oil. A small shallow box of 2-inch pine, about 1½ feet square, and painted slate color, was picked up.

The commanding officer desires to invite the attention of the force commander (usnfoiew) to the action of the following officers and men:

J. Meetish, seaman, United States Navy, for his exceptional alertness as lookout in sighting a periscope under adverse conditions of light and for efficiency in conning the ship toward the periscope.

Lieut. R. B. Twining, United States Navy, for his prompt action in heading for submarine. Lieut. O. C. Badger, United States Navy, for his coolness and good judgment in directing the launching of the depth charges.

H. Fritchett, chief gunner's mate, United States Navy, for the efficient manner in which he responded to the directions for dropping the depth charges.

B. O. Frank, chief machinist's mate, United States Navy, for the prompt manner in which the engine room answered the emergency call.

H. Henkle, water tender, United States Navy, for the prompt manner in which the fire room answered the emergency call.

W. H. LEE.

(Credit given by Admiralty: "Probably seriously damaged.")

U. S. S. "STEWART," April 24, 1918.

From: Commanding officer.

To: Commander, United States naval forces in France. (Via chief of escort, group "C")

Subject: Attack on submarine.

1. At 11.50 a. m. (summer time) on April 23, 1918, when off Penmarch escorting the southbound convoy, Brest-Quiberon, two hydravions were seen to be dropping bombs about 2 miles to seaward of our position. Stewart immediately proceeded toward them at full speed and a French destroyer was seen coming from the northward and heading for the same spot.

2. One hydravion came directly toward Stewart, dropped a bipu and the observer gave the direction of the submarine by pointing. A clear and distinct wake was then picked up, and at the end of this wake an object could be seen just breaking the surface. We ran down this wake, heading directly for the disturbance in the water. The wake led to seaward, but the broaching object turned off to the right and just before Stewart reached the spot was at right angles to the original wake. One of the hydravions dropped a smoke bomb very close to this spot.

3. Sea was smooth with a light swell and conditions perfect for tracking a submarine. Just before Stewart reached the spot, the broaching ceased, but, silhouetted in a swell, I saw a large, dark object in the water underneath the disturbed surface.

4. The French destroyer, approaching at right angles, crossed the submarine wake just ahead of Stewart, forcing me to sheer off to starboard slightly, but he did not drop any depth charges; possibly he was attempting to ram. Stewart passed within 50 feet of the dark object and disturbed water, dropping two charges in close succession. The water brought up by both these bombs was very dark and heavy oil spread on the surface from this spot. Three other bombs were dropped which brought up clear water; one on the approach and two while circling after passing submarine. One of these was slow in detonating.

5. These bombs were dropped so close to the submarine, one on each side and within 50 feet of it and the force of explosion was so great that it seems impossible that the submarine could have survived. Depth setting was 80 feet, depth of water about 40 fathoms. It was also observed that the columns of water which brought up oil were more spread out and not so high as the columns of clear water. For a time after the explosion the water in the vicinity was streaked with a thick reddish substance the nature of which could not be determined. The oil was unmistakable and spread over a large area. The submarine could hardly have been more than 50 feet under the surface when the charges exploded as he was very close to the surface when we were within 150 yards of him, making about 21 knots.

6. Stewart remained near the spot until 4 p. m., then proceeded at full speed to rejoin convoy in accordance with orders from chief escort. At this time several French patrols had arrived and were patrolling in the vicinity. Oil was still coming to the surface, but in no definite bubbles. An anchor buoy was dropped in latitude 47° 50' north, longitude 4° 32' west, and it is thought that by dragging, the submarine can be located and its destruction definitely proved.

7. This action is considered an excellent example of the efficiency and coordination that can be obtained when avions and destroyers are working together. The work of the avion in directing the Stewart was so perfect that not a second was lost in reaching the submarine's exact position.

H. S. HAISLIP.

[First indorsement.]

U. S. S. "WANDFRED," April 27, 1918.

From: Chief of escort, group C.

To: Commander United States naval forces in France.

Via: District commander United States naval forces in France.

1. Forwarded.

2. The quick realization of the situation and prompt action of the *Stewart* enabled her to meet the submarine before he had submerged sufficiently to lose trace of him. This prompt action undoubtedly was the cause of the good results obtained, and saved our convoy of 17 ships from most certain attack.

P. S. WILSON.

[Third indorsement.]

APRIL 28, 1918.

From: Commander United States naval forces in France.

To: Force commander.

Subject: U. S. S. *Stewart*: Action against German submarine.

Reference: My cable No. 2027 of April 28.

1. Forwarded. This was previously reported in reference.

2. There is no doubt that the action of the avions and of the *Stewart* prevented an attack on the convoy by this submarine. It is also considered probable that the submarine was destroyed by the *Stewart*, although there is no conclusive evidence of this.

H. B. WILSON.

(Credit given by Admiralty: "Probably seriously damaged.")

U. S. S. "WARRINGTON," July 17, 1917.

From: Commanding officer.

To: Commander in chief, coast of Ireland station.

Subject: Report of operations, July 13, 1917.

1. At 1.18 p. m., July 13, 1917, while in position latitude 51:20 north, longitude 8:52 west, on course 118° true, speed 15 knots, sighted submarine on surface on port beam about 4 miles distant; conning tower was plainly visible, and when on the crest of a wave the bow would show well out of water.

2. Turned and headed full speed for submarine, and when about 2½ miles distant she submerged. On arrival at estimated position of submarine found an elliptical-shaped oil slick about 150 yards, with a narrow oil slick leading off to southward. This small slick seemed to be in process of formation and seemed to indicate something underway beneath the surface. Also bubbles were visible.

Dropped a depth charge at end of slick. Charge exploded and the water was discolored over an area of about 50 yards square. Also oil seemed to appear over the surface.

Searched area within 7-mile radius for about two hours. Nothing more was seen. When submarine was first sighted sea was smooth and weather slightly hazy, radius of visibility about six miles. Within one-half hour the haze had disappeared and visibility conditions were extremely good.

3. At 9.03 while in position lat. 51.29 N; long. 8.15 N., course 58 true, speed 15 knots, sighted a very large oil slick about 1½ miles long and 100 yards wide. Investigated this slick and when about 50 yards from windward of slick (where oil was thickest and seemed to originate) the ship struck a submerged object. This was not felt on the bridge, but all the men in the after living compartments were awakened and rushed on deck. They reported that the blow was very pronounced and felt as though the after end of the ship were being lifted. Immediately turned and ran over the spot again and dropped a depth charge. This charge did not explode. Made another circle and dropped a charge over the origin of the oil. This time the charge exploded. On returning to the spot found that oil was spread over the surface, for about 200 yards square and there was a very strong odor of fuel oil. Searched the neighborhood for about one-half hour (until it was quite dark) but did not discover anything.

Weather conditions—sea smooth; light breeze from southwest, clear.

I. F. DORTCH.

(Credit given by Admiralty: "Possibly slightly damaged.")

U. S. S. "BENHAM," July 30, 1917.

En route to Queenstown, Ireland.

At 7.10 a. m. sighted wake of periscope of enemy submarine three points forward of port beam, distant 1,500 yards. Went to general quarters and turned toward submarine

at full speed. Opened fire from forecandle gun at 7.11. Passed over wake and let go depth charge, then turned with full right rudder and let go second depth charge. Submarine changed course to southeast. Turned with full right rudder, ran down wake and let go third depth charge. Turned with full left rudder, opened with port battery. Ran down wake. Ceased gunfire. Let go fourth depth charge directly over submarine at 7.32. Turned with full right rudder. No evidence of wake or periscope. Bubbles were seen rising, and large oil slick. At 7.45 resumed course and speed. Secured from general quarters at 7.55. Ammunition expended, 26 rounds 4-inch and four depth charges. Position of action, latitude 49° 32' north, longitude 6° 34' west.

SEPTEMBER 6, 1917.

From: Force commander.

To: Commanding officer, U. S. S. *Benham* via commanding officer, U. S. S. *Melville*.

Subject: Admiralty's commendation of action between U. S. S. *Benham* and enemy submarine on September 30, 1917.

Inclosures: (1) Original of Admiralty's letter of August 21, 1917, in part.

1. The force commander transmits with pleasure to the commanding officer of the U. S. S. *Benham*, the original of a letter received by him from the admiralty concerning the engagement between the *Benham* and an enemy submarine on July 30.

2. In publishing this letter to the officers and crew of the *Benham*, please express to them my admiration and gratification for this example of the excellent organization and spirit existing on board.

WM. S. SIMS.

AUGUST 21, 1917.

DEAR ADMIRAL SIMS: The Admiralty has received a report of an engagement between the U. S. S. *Benham* and an enemy submarine on July 30, 1917, and desire me to express to you their lordship's admiration of the decision and ability shown by the commanding officer and crew of the *Benham*.

I am, yours, very truly,

A. A. R. MURRY.

(Credit by Admiralty: "Probably seriously damaged.").

U. S. S. *Patterson*, *Beale*, *Burrows*, *Allen*.

(Report of commanding officer, U. S. S. *Allen*.)

At 4.08 p. m., May 19, 1918, while the U. S. S. *Allen* was in latitude 52° 46', longitude 5° 30' west on patrol duty, in the Irish Sea, the following radio was received from U. S. S. *Patterson*:

"Dirigible Z-51 reported periscope sighted beneath surface. She dropped one depth charge. U. S. S. *Patterson* dropped pattern on 10 depth charges latitude 52° 47' north, longitude 50° 04' west. No apparent results."

A dirigible being in sight it assured this was the one, and in accordance with doctrine, immediately headed for position at full speed.

At 4.21 p. m., received following radio from U. S. S. *Patterson*:

"Believe submarine in damaged condition. Only have two depth charges. Request your cooperation. Ten miles west of Bardsey."

Immediately sent radio "Make some. Am coming." Within a very few minutes made out U. S. S. *Patterson*'s smoke and altered course slightly and closed rapidly.

Upon arriving on scene found U. S. S. *Patterson*, H. M. S. *P-62*, and two dirigibles. Just as we arrived H. M. S. *P-62* dropped a number of depth charges on a large oil slick.

Signal was received from the *Patterson* that the oil slick seemed to be moving 210° magnetic. Found large oil slick over a mile in length gradually carrying toward 210 magnetic. Proceeded through slick and upon reaching the end of it dropped five depth charges at intervals of 10 seconds. Put rudder 20 degrees right after the second charge. No more depth charges were dropped after swinging right, as there seemed to be no indication or probability of the submarine turning; it appeared almost certain that the charges must have exploded in close vicinity of any submarine that might be beneath the surface. All depth charges were at 105 feet, depth of water 40 fathoms. The ship was immediately swung through 350 degrees and again came down the oil slick, dropping five more depth charges set at 150 feet at intervals of 10 seconds. Put rudder 20 degrees left after dropping the third charge. Again circled and came back slowly over the area covered the depth charges; saw considerable oil and large oil bubbles and smaller air bubbles continually rising to the surface. One of the dirigibles at this moment swooped to the surface of the water near point where the depth charges had just been exploded and signalled that bubbles were

rising. Backed clear, first dropping marker buoy on spot where bubbles seemed to be thickest. Went full speed and approaching marker buoy; allowing for strength of tide, dropped four depth charges at intervals of about seven seconds across the patch where bubbles appeared to be thickest.

On looking back as depth charges exploded, after second charge a white object about 12 inches round appeared on the surface protruding several inches. Ship was circled and brought to vicinity of this object and stopped. The object appeared to be a canvas muzzle bag and painted white and was fresh and clean, about 12 inches in diameter, 20 inches long, with two wrappings of marline and appeared to be exuding thick oil. Immediately alongside of this was a small piece of wood painted white. In attempting to pick up this white object with a boat hook it capsized and a circular piece of wood and considerable oil came out of it, but the canvas sunk. The two pieces of wood were picked up. From all indications the white canvas appeared to be a muzzle bag. Large number of oil bubbles were arising. The wherry was lowered and samples of the oil obtained. The wherry pulled around through considerable of the oil and the oil slick and reported bubbles arising more thickly in the spot some hundred yards farther on. The wherry was accordingly hoisted in and three depth charges were dropped in the center of this other spot. In the meantime the *Beale*, *Burrows*, H. M. S. *Griffin*, *Zephyr*, *Kestrel*, and an unknown yacht and trawler had arrived. U. S. S. *Allen* had but two depth charges remaining, and the *Burrows* was signaled to follow in the wake of the *Allen* and drop 10 charges after we had dropped three before mentioned. This was done.

In the meantime the *Beale* had also located a spot where considerable oil bubbles appeared to be rising and so bombed this spot. *P-62* and one of H. M. S. destroyers had in the meantime bombed other spots which were located by oil bubbles arising. Area covered by the oil slicks was by this time quite large. The *Allen* steamed about slowly through the other oil patch trying to locate any spot which would give greater indications of the presence of a submarine. It was now getting towards dusk. Received orders from H. M. S. *Patrol* to take charge, and accordingly issued orders to the various ships present to cover different sectors during the night, *Allen* in the meantime marking the spot by an anchored lighted calcium buoy.

It is considered that the submarine located by the dirigible *Z-51* and attacked by the *Patterson* was as a result of the *Patterson's* and the combined attack of the various British and United States vessels most probably entirely destroyed or seriously damaged.

It is impracticable to make a sketch of the operations due to the area covered and the number of vessels taking part.

It was a good example of cooperation of not only between surface craft, but between surface craft and air craft. (Credit given by Admiralty: "Possibly slightly damaged.")

U. S. S. *Wakiva*, *Noma*, and *Kanawha*.

United States naval forces operating in European waters, patrol squadron based on French coast.

U. S. S. "PANTHER," FLAGSHIP, BASE 7,
December 3, 1917.

From: Commander patrol force.

To: Force commander.

Subject: Submarine, destruction of, by vessels of patrol force escorting *Kohn* and *Medina*, latitude 47° 23' north, longitude 03° 39' west, November 28, 1917.

1. There are forwarded herewith reports from the commanding officers of the U. S. S. *Kanawha*, U. S. S. *Noma*, and U. S. S. *Wakiva* relative to an action with an enemy submarine on the evening of November 28, 1917.

2. A thorough inquiry has been made into the circumstances attending this action, which together with the reports of commanding officers attached has convinced me:

(a) That an enemy submarine was destroyed by the *Wakiva*.

(b) That there was a strong probability that two submarines were present, and that one of them escaped, and at 3.48 a. m. the following morning and torpedoed the S. S. *Texas* in latitude 47° 35' north and longitude 03° 16' west.

(c) That the same submarine or one of these submarines at 5.50 p. m. November 28 had torpedoed and sunk the steamer *Jean Conseil* in latitude 47° 27' north, longitude 03° 58' west.

3. The escort and convoy sailed from Quiberon the afternoon of November 28, 1917, the time of sailing, formation and zigzag in accordance with doctrine. The *Kanawha*, commanding officer of the escort lead ahead of the interval between *Kohn* and *Medina*; *Noma* on right flank, *Wakiva* left flank.

4. At 6.20 p. m. the lookout on the *Kanawha* reported a periscope on the port beam of the *Kanawha* very close aboard and heading towards the *Medina*. The *Kanawha* made the necessary signals, went full speed, turned with left rudder in the direction the submarine had been proceeding. The submarine submerged and search by all three vessels of escort failed to relocate him. The *Kanawha* made signal to reform convoy and proceed with convoy, leaving *Noma* and *Wakiva* to continue to search. At 6.40 *Noma* and *Wakiva* were directed to rejoin the convoy.

5. The courses of *Noma* and *Wakiva* diverged due to their having positions about 3,000 yards apart in the convoy formation and at 6.50 p. m. the *Noma* sighted a periscope on her starboard beam apparently standing to the northward and eastward (away from convoy).

6. The *Noma* made signal and swung with right rudder at the same time letting go depth charges, but it is believed without injuring the submarine. The *Wakiva* swung with right rudder until she was on leading away from convoy.

7. At 7.02 p. m. the *Wakiva* sighted a periscope on the port bow at a distance estimated to be within 100 yards. The submarine drew rapidly aft and was apparently standing towards the convoy. It then appeared to swing so as to bring a bow tube to bear on the *Wakiva* which turned with left rudder which resulted in the submarine crossing the *Wakiva's* wake. The *Wakiva* fired three shots from its port aftergun, and the third one detonated, apparently striking the periscope, which disappeared. The *Wakiva* also let go two depth charges, one British type D and one French, both of which functioned.

8. The *Wakiva* then swung with hard right rudder and passed near this spot. As she approached, what appeared to be the conning tower of the submarine emerged and the starboard forward gun fired twice the second shot detonating. The conning tower sank, and as the *Wakiva* passed over the spot, a large number of air bubbles were seen coming to the surface of the water, on which there was a large quantity of wreckage which the *Wakiva* did not obtain. As she passed over, two Sperry and one French depth charges were let go, all of which functioned.

9. The *Wakiva* again turned and passed near the spot and her commanding officer thought he saw the shapes of three men clinging to a piece of wreckage and hailed them, but received no response. On passing near the place a fourth time they had disappeared.

10. In the meantime the *Noma* had continued search and at 7.12 p. m. sighted a periscope on her starboard bow; turned toward it and, on passing over the place it had been seen, let go depth charges, but no evidence was obtained as to the effect on the submarine except some oil.

11. Following this action both vessels rejoined the convoy, which proceeded without further incident.

12. The commander patrol force bases his belief that there were two submarines on the fact that the submarine sighted by the *Noma* at 6.50 p. m. was apparently standing away from the convoy while the one sighted by the *Wakiva* 12 minutes later was somewhat to the south and standing toward the convoy; that the *Noma* reports sighting a periscope at 7.20 p. m., or about 18 minutes after it is believed a submarine was destroyed by the *Wakiva*, and on the fact that a submarine was operating about 25 miles to the eastward off Quiberon Bay. Furthermore, about 8.45 p. m. (after the action) the radio operator on the *Noma* heard a vessel sending in German code with low power and apparently very close. This vessel called three times and without waiting for a reply to his call sent the same message each time.

13. There is no question but that the prompt action of all vessels of the escort saved the convoy, and while there is no material evidence to that effect, the commander patrol force is strongly of the belief that a submarine was destroyed by the *Wakiva*.

14. Attention is also invited to the report of the commanding officer upon the excellent manner in which the master of the *Koln* acted in the emergency.

15. Moonlight, but sky overcast, with smooth sea during action.

REPORT FROM COMMANDER OF U. S. S. "WAKIVA."

NOVEMBER 28, 1917.

At 6.50 p. m., an alarm was given by the U. S. S. *Noma* followed immediately by a depth charge. The *Wakiva* turned to the right and headed toward the *Noma* at full speed, the crew being at quarters. At 7.02 p. m., while about $1\frac{1}{2}$ miles from the *Noma*, a periscope was sighted on the port bow, 100 yards distant. The submarine was going in the opposite direction to that of the ship, evidently intending to use a bow tube, if possible. The *Wakiva* was put hard left to avoid this maneuver and the submarine headed toward the *Wakiva's* wake. Fire was immediately opened with

No. 4 gun, and the third shell struck the periscope and was detonated, probably blowing off the end of the periscope, for it was no longer seen. Before this shot with No. 4 gun, it was seen that the periscope was heading to pass astern of the *Wakiva*.

Accordingly two depth charges were dropped over the quarter at 7.04 p. m., one being an English depth charge and the other a French depth charge. Both depth charges functioned, and it was estimated that they exploded at about 70 feet, causing a great commotion in the water, and evidently badly damaging the submarine, which was seen to break water at a point directly over where the charges were exploded. The *Wakiva* was immediately put hard right, and passed again over the same spot, above which some wreckage, considerable oil, and air was seen. On passing over this spot the second time two Sperry depth charges and one French depth charge was dropped at about 7.19 p. m. All these charges functioned and the oil, air, and wreckage continued to come to the surface.

At this time No. 1 gun opened fire on the wreckage and fired two shots, both of which were hits, one of which exploded.

The *Wakiva* was again put hard right, and passed the wreckage on the port hand. It was thought that there were three men clinging to the wreckage, but when the *Wakiva* turned for the fourth time and approached the wreckage, they had disappeared.

At 7.35 p. m. the *Wakiva* headed for its position with the convoy, which had proceeded escorted by the U. S. S. *Kanawha*, and rejoined the convoy at 8.45 p. m.

This engagement took place in latitude 47° 23' north, longitude 03° 39' west.

During the engagement an all message was sent to the commander United States naval forces at Brest, France, giving location of this submarine.

While the *Wakiva* was engaged with this submarine the *Noma*, about 1½ miles distance, was dropping depth charges on another submarine, and the conclusion reached would seem to be that there were two hostile submarines waiting south of the Ile De Groix intending to attack the convoy. The first of these was sighted by the U. S. S. *Kanawha* and driven away, probably submerging and waiting until the search had been given up. The submarine sighted by the U. S. S. *Noma* and pursued was probably either the one sighted by the *Kanawha* or the mate of that submarine. All conditions point to the supposition that there were two submarines in this vicinity, for while the engagement was going on between the *Wakiva* and the submarine the *Noma* was having a similar engagement about 1½ to 2 miles distance in a northerly direction toward the Ile De Groix.

While it was not possible to bring in any material evidence to aid in the proof of the sinking of this submarine by the U. S. S. *Wakiva*, it is believed that this submarine was sunk and that all on board were lost.

During the night in question there was a moon partially obscured by clouds, but the periscope was distinctly seen by nearly all officers and gun crews, and after the first depth charge the water was broken immediately over the place where the charge exploded by what was thought to be the conning tower of the submarine and which slowly disappeared. Over this spot there were seen great quantities of oil, some wreckage, and several geysers of air, while a strong odor of petroleum and oil was very evident. It was believed that three men were seen clinging to the wreckage, but before the vessel could turn and again approach the post the men had disappeared.

Throughout the entire engagement the crew worked as a perfect fighting unit. They showed admirable coolness and courage, and in no instance was any nervousness or inefficiency manifested.

The armament functioned perfectly in every respect. There were no missfires, hangfires, or faulty ammunition. All depth charges functioned perfectly and evidently exploded at their set depths.

(Credit given by Admiralty: "Probably seriously damaged.")

The CHAIRMAN. Mr. Secretary, have you been able to get any information from the German records that shows anything positively in regard to these matters?

Secretary DANIELS. There is a publication which I have, a review of in a magazine. I can not remember the name of the officer who wrote it. He has written a book about it, which is reviewed in this magazine which I have. I have telegraphed to obtain the book, which I hope to have. I have been unable to get it at Brentano's and other places here. In this book he discusses very fully Von Tirpitz's and Von Capelle's statements and opinions.

The CHAIRMAN. But he does not go specifically into it in his book? Secretary DANIELS. I have not seen it as yet, Mr. Chairman, and I can not say.

I have put these reports in the record, because most of them indicate that the submarines were destroyed, whereas they got from the British Admiralty only "possibly damaged," or something like that.

PRISONERS OR WRECKAGE NOT ALWAYS REQUIRED.

In explaining why so few credits were given for known sinkings, most of these credited as successful being listed merely as "Probably slightly damaged," the summary compiled by Admiral Sims's headquarters states that "unless prisoners or unmistakable wreckage was obtained following an attack, it was practically impossible to definitely determine the results of the attack."

That prisoners or wreckage were not absolutely required before a vessel was credited with sinking a submarine is shown by the following reports, taken from the British Admiralty records, of cases which were classed as known sunk:

Known: U 69; July 12; 60° 23' north, 1° 32' east. (North Sea N.) 271.

The first section grand fleet kite balloon destroyers were spread on patrol lines 15 miles apart. At 0537 a submarine was sighted by *Patriot* on the surface 28 miles east. *Patriot* shaped course for same at 25 knots. Submarine dived when 6 miles off at 0615. At 0705 submarine came to surface about 4 miles off. *Patriot* opened fire and submarine dived. *Patriot* proceeded to spot and dropped two depth charges (type B). At 11.25 a. m. a heavy explosion was heard and shock was felt. There was no ship in sight.

Twenty minutes later *Auzac* found what was evidently the scene of the explosion in 60° 25' north, 1° 32' east. The sea was covered for about 400 yards with thick, brown fuel oil in a turbulent condition, still rising. At 1620 oil was still rising and had spread over an area 4 to 5 miles long by 1 mile wide. Twenty-four hours later it stretched for a mile wide, up and down wind, as far as the eye could reach. (M. 09278).

Known: UB. 107; 50° 24' north, 0° 24' west. (North Sea.) July 27. 244.

At 2030, while on hydrophone patrol in neighborhood of convoys, H. M. trawler *Calvia* sighted submarine about 500 yards on starboard bow, both periscopes and outer rail of conning tower being just awash. Trawler's helm was put hard aport, but submarine dived immediately, leaving a large swirl on surface. A strong flood tide was running and *Calvia* proceeded about 100 yards to northward of swirl and dropped a depth charge. A combined attack with depth charges by trawlers *Calvia*, Commander Nasmith and *Walter Priory*, and H. M. T. B. D. *Vanessa* then followed. Submarine was heard on hydrophone quite loud close to *Calvia*, and *Vanessa* dropped depth charges all round the position, after which nothing more was heard.

At 2215 *Calvia* observed a patch of oil and bubbles in the vicinity, and *Vanessa* dropped a depth charge to north and east of it.

At 0630 on 28th what appeared to be a headless body was observed floating by, partially submerged. Engines were put full astern, but the body must have got mixed in the swirl as nothing more was seen. (M. 022637, 022393.)

Known. U. B. 90; October 16; 57° 55' north, 10° 27' east. (North Sea.) 250.

At 1613 H. M. submarine *L 12* on patrol, steering south, sighted what looked like the conning tower of a submarine bearing 30° on the starboard bow. The light was beginning to fail and course of submarine could not be made out, so speed was increased to full till 1622 to close. The conning tower was then observed on same bearing about 1½ miles distant, and submarine was seen to be steering straight for *L 12*, who therefore altered course to southeast and proceeded full speed to open.

When next observed at 1628 enemy was on port quarters, having apparently altered course 90° to starboard, so *L 12* turned to port under full helm and steadied on 30°.

At 1632 range was about 1,500 yards and enemy's speed about 12 knots. Light was now becoming very bad, but it appeared that *L 12* was on enemy's beam, so four 21-inch bow torpedoes were fired in pairs with 10 seconds interval between, one torpedo of each pair being angled to 3°, deflection 20°. One minute 25 seconds after the first

torpedoes were fired a loud explosion was heard, and 30 seconds later no submarine was visible through the periscope.

On arriving at the spot the surface of the water for a radius of 200 yards was covered with oil and there was a very strong smell of paraffin. Several small pieces of wreckage were observed and a black shape resembling a human body, but these could not be picked up and were eventually lost sight of in the darkness. (M. 024719.)

Known. U. 84; January 26; 51° 53' 30" north, 05° 44' west. (Irish Channel Approach.) 19.

At 0610 H. M. S. *P 62* was on patrol between the Smalls and Tuskar Lighthouses, steaming northwest at 12 knots and zigzagging. A dark object was sighted off the port-bow, distant 300 yards, and steering in an opposite direction. Course was at once altered to port, and object was seen to be a very large enemy submarine on the surface. Submarine endeavored to keep clear by altering course to starboard and then endeavoring to dive. *P 62* went full speed ahead and rammed the enemy at right angles just abaft the conning tower. She was traveling at 17 knots at the moment of impact, and the collision brought her up standing.

Half the conning tower of the submarine was visible, and, when struck, the stern appeared above the surface.

Large quantities of oil were seen on the surface when day broke, and a "D" type depth charge, set at 200 feet, was dropped over the position, but no wreckage appeared. (M. 01573.)

BRITISH ADMIRAL AND ITALIAN GENERAL STAFF SAID UNITED STATES SUB. CHASERS SANK SUBMARINES AT DURAZZO.

I wish to call special attention to what I am going to read now, because I think it is of the highest importance, and shows Admiral Sims's great mistake and great wrong of permitting the admiralty of another nation to withhold credit from American commanders who sank submarines.

Though the British force commander in the Adriatic cabled that our submarine chasers in the attack on Durazzo, the Austrian naval base, October 2, 1918, "apparently destroyed definitely one submarine which torpedoed H. M. S. *Wemouih* and damaged and probably destroyed another submarine"; and the Italian naval general staff expressed to Admiral Sims its "admiration of their brilliant and clever operations which resulted in sinking two enemy submarines," this seems to be omitted from the list of successful attacks compiled by Admiral Sims's headquarters, which does not mention any credit having been given them by the Admiralty.

The dispatch sent through the British Admiralty to Admiral Sims by the commander of the British Adriatic force was as follows:

I am most grateful for the valuable service rendered by 12 submarine chasers under Capt. Nelson, United States Navy, and Lieut. Commander Bastedo, United States Navy, which I took the liberty of employing in an operation against Durazzo on October 2. They screened heavy ships during the bombardments under enemy fire; also apparently destroyed definitely one submarine which torpedoed H. M. S. *Weymouth*, and damaged and probably destroyed another submarine. During the return voyage they assisted in screening H. M. S. *Weymouth*, and in escorting enemy hospital ship which was being brought in for examination. Their conduct throughout was beyond praise. They all returned safely without casualties. They thoroughly enjoyed themselves.

Admiral Sims also received the following dispatch from Rome:

Italian naval general staff expresses highest appreciation of useful and efficient work performed by United States chasers in protecting major naval vessels during action against Durazzo; also vivid admiration of their brilliant and clever operations which resulted in sinking two enemy submarines.

Now, Mr. Chairman, if the admiralties of other nations are to determine the credit due to American commanders for sinking enemy

submarines, instead of American admirals, I submit that we ought not to confer that power upon the British Admiralty when an engagement takes place in the Adriatic, but we ought to accept the decision of the Italian general staff rather than that of the British Admiralty.

"TWO SUBMARINES OUT OF THREE DESTROYED," CAPT. NELSON REPORTED.

Capt. Charles P. Nelson, commanding the 11 United States submarine chasers which took part in the attack on Durazzo, said in his report:

I wish especially to commend the efficient manner in which the chasers of unit B, under direct command of Lieut. Commander Paul H. Bastedo, United States Navy, accomplished their mission. I want to especially mention the fact that two submarines out of three were destroyed by this unit.

Now, there is a direct statement by Capt. Charles P. Nelson, one of our best naval officers, that unit B, under the command of Lieut. Commander Bastedo, destroyed two out of three.

When I was in London last year on every hand I was told that Commander Bastedo and Capt. Nelson had rendered a service that gave great glory to the Navy, and that Bastedo's unit of chasers had sunk two submarines. It was generally accepted by the people who told me about it. And yet they have no credit. [Continuing reading:]

I want to especially mention the fact that two submarines out of three were destroyed by this unit, one of them by two chasers of the unit and the second by one which had broken down and acting by himself. The manner in which these attacks were conducted was highly satisfactory, and had another unit been operating in company with unit B, I feel certain that the third submarine would also have been accounted for. A careful study of the manner in delivering the attacks in both cases shows quick judgment and equally accurate execution, which resulted in probably avoiding further damage to the main body.

The manner in which the sub chaser 129, acting singly and in a crippled condition, completed her successful attack I consider as worthy of special mention as showing excellent judgment and prompt action.

ATTACK OF SUB CHASERS 215 AND 128.

The following account is given of the attack of sub chasers 215 and 128 on enemy submarines:

Unit B, sub chaser 215, sub chaser 128, and sub chaser 129, were steaming in column in a general northeasterly direction to take station on assigned patrol line when at 10.28, sub chaser 129, the rear ship, was seen to sheer off to port. Sub chaser 215 turned to port, as it was decided that subchaser 129 had sighted a submarine and was attacking. At this moment sub chaser 215 sighted a moving feather about one and one-half points forward of port beam, distant about several hundred and fifty yards and heading to the northeastward.

At 10.30 the sub. chaser 215 opened fire with her 3-inch gun and port machine gun, changing course to port toward the submarine and hoisting signal to form for attack. The second 3-inch shot was fired on the starboard bow and was seen by the commanding officer and executive officer to drop 2 feet short of the then visible periscope, shattering it, as a column of air and water was seen to rise to a height of about 6 feet. The next two shots were aimed at this air and water column. This column resembled that given off from Italian submarine *Nautilus* when the latter was fouled and her periscope was broken off by the sub. chaser 128 at Gallipoli. Six 3-inch shells were fired.

Sub. chaser 215 kept turning to port, and sub. chaser 128, which had been following, maneuvered to take position on starboard beam, distant 100 yards. About the time

of the second shot it was seen that the submarine was turning sharply to starboard in a general southerly direction toward the British light cruisers, which at the time were at a distance of about 2 miles, and headed to the southward to enter their bombarding sector.

Sub. chaser 215 and sub. chaser 128 closed the submarine, and laid a pattern of depth charges in position approximately latitude 41.23 north, longitude 19.14 east, in about 40 fathoms of water. Sub. chaser 215 dropped six depth charges from her stern and fired Y-gun charges. All charges were set at 50 feet and functioned properly.

The first four charges let go from the sub. chaser 215 showed only the usual depth-charge disturbance. In the explosion of the starboard Y-gun charge, the executive officer of the sub. chaser 215, who was on top of the pilot house, saw an object which resembled a plate, also some débris, rise to the surface and then disappear, and he sang out something to the effect, "that got him." This object and débris were seen by several men on deck; also, a man in the engine room looked out of the port and seeing something similar sang out that a ship had been torpedoed close aboard. At the explosion of the fourth depth charge, dropped from the sub. chaser 128, the two machinist's mates, who were dropping the charges reported that they saw a piece of wreckage rise and then sink. Heavy dark oil in large globules was seen rising.

After bombing sub. chaser 215 and sub. chaser 128 turned to head for sub. chaser 129, which latter vessel had previously reported a submarine and was at this time lying to with her engines disabled. At the moment it was felt that a successful attack had been delivered and it was considered more important to hunt other submarines to the southward than to search carefully the area just bombed. Sub. chaser 215 and sub. chaser 128 immediately stood for sub. chaser 129 at full speed. I firmly believe that the charges dropped at point A by the sub. chaser 215, together with the fourth charge dropped from the stern of the sub. chaser 128 destroyed the submarine.

ATTACK OF SUB. CHASER 129.

The following account is given of the attack of sub. chaser 129 on enemy submarine:

About 10.25 United States submarine chaser No. 129, the rear ship of unit B, then steering a northeasterly course to take position on assigned patrol line, sighted a moving feather on her port quarter, distant about 1,600 yards. The feather was moving in a southerly direction and was seen by the executive officer and by members of the crew. A signal was sent immediately to the sub. chaser 215, reporting a submarine sighted, and course was altered slowly to the left so as to deliver an attack at right angles. The speed of the submarine was estimated to be about 6 knots. He was headed in a general southerly direction, apparently getting into position to attack the bombarding forces. About the same time a second periscope feather was sighted a little farther to the westward.

At 10.34 a stern bomb was dropped due to the whistle having been accidentally blown. After this explosion the submarine submerged for almost a minute and he then reappeared, showing both periscopes. At 10.36 sub. chaser No. 129 commenced laying a pattern of depth charges ahead of the submarine and at right angles to his course. All charges were set at 50 feet except No. 8, which was set at 150 feet. After bomb No. 2 was dropped the periscope was still plainly visible but disappearing. No. 3 bomb was dropped just before reaching his wake and it seemed that the course being steered by 129 would bring the fourth bomb directly over the submarine. After bomb No. 5 was dropped it was necessary to slow to 5 knots on account of engine trouble. In the water thrown up by bomb No. 7 objects resembling pieces of metal appeared. What seemed to be an explosion other than the depth bomb was noted about this time.

The chaser, after delivering her attack, steamed back toward the bombed area and found thick brown oil spreading and numerous bubbles rising. The vessel was stopped. At 10.40 a circle of white, bubbly water suddenly rose to the surface about 25 yards distance on the starboard beam. This boiling patch lasted for about 20 seconds and then subsided. After this, bubbles continued to rise. I firmly believe that the submarine was destroyed.

ARMED GUARDS HAD MANY ENCOUNTERS WITH SUBMARINES.

Though our armed guards on merchant vessels had more encounters with submarines than had any other branch of the service, the Sims headquarters list makes no mention of any credit whatever being

given them for sinking or damaging submarines. Even though Admiral Sims did assert repeatedly that the arming of merchantmen was practically valueless as a protection against submarines, he can hardly carry his prejudice so far as to deny to the thousands of our armed guards credit for their courage, efficiency, and success in repelling submarine attacks.

The records of the armed-guard section show that 384 merchant ships were armed by the United States Navy, and these vessels made 1,832 trans-Atlantic trips: 347 sightings of or attacks by enemy submarines were reported: 227 attacks by enemy submarines were classified as "actual;" 193 attacks were successfully repulsed; 44 of the encounters reported were surface encounters, some of them being long-continued gun-fire engagements, two of them being of no less than four hours' duration.

The reports indicated that in 34 of these attacks the submarine was damaged, and in several instances there was strong evidence that the submarine was sunk. A few extracts from the hundreds of armed-guard reports are given below:

STEAMSHIP "SILVER SHELL," MAY 30, 1917.

Engagement of the steamship *Silver Shell* on May 30, 1917, latitude 39° 22' north, longitude 5° 24' east, off the Balearic Islands. William J. Clark, of New York, chief turret captain, who was in command of the armed guard, reported:

May 30, at 5.35 p. m., a submarine was sighted off starboard beam, flying no flag or marks of identification. Manned and loaded both guns. Hoisted colors and waited about 10 minutes. Fired after gun with sights set at 4,000 yards, scale 49, and fired purposely short to see what the submarine would do, as she was closing in on the *Silver Shell*. At the same instant of our flash the submarine fired a shot, the shell dropping 100 yards short amidships. The ship was swung to port to bring the submarine astern.

Twenty-five rounds were fired at the submarine, the last two of which appeared to be hits. As the last shot landed the submarine's bow raised up and went down suddenly. The crew of the submarine who were on deck did not have time to get inside, so it is believed there is not much doubt about her being hit.

The submarine fired in all 32 rounds, the last four of which were shrapnel and exploded overhead. The second shot from the submarine dropped 100 yards off our starboard beam, the range perfect. The third shot off the port beam with the same range. As there was a heavy ground swell running, it is believed that caused the submarine to miss hitting the *Silver Shell*. The fourth shot passed over the bridge, and the following shots passed over to the right and left. The submarine all this time was gaining on the *Silver Shell*. The submarine appeared to be 250 to 300 feet long. There were two guns mounted on the deck, a 6-inch (apparently) gun forward of the conning tower and a smaller gun aft. The forward gun was the only one used. The first shot fired at the submarine only reached half way, as the submarine was about 7,000 yards off.

The engagement lasted from 6 p. m. until 7.27 p. m. There were no casualties. As soon as the submarine fired the first shot an S O S call was sent out giving the position and course, which was answered by F U T (Toulon) stating assistance was under way. A few seconds after a Spanish ship commenced sending with her wireless with apparent intent to block our message.

The master of the *Silver Shell*, John Charlton, was convinced that the submarine was destroyed, and in his report said:

The submarine sheered off and, still gaining, ran along parallel on the port quarter, in the smoke of the steamer most of the time. When he considered them close enough, Capt. Charlton gave orders to fire. The submarine returned this immediately, the shot dropping about 20 yards off the starboard beam. The speed of the *Silver Shell*

had been raised to 14 knots, but the submarine continued to gain. At about 7 p. m. one of the shots of the steamer struck the submarine flush, hitting the ammunition on the deck. There was a flash of flame, and within a minute she had disappeared. The merchantman kept on its course in the belief that it might be a trick; the captain now, however, in view of the fact that the crew were still on the deck when it submerged, is firmly convinced that it was destroyed. The submarine was about 250 feet long, painted a dark gray color, and very high out of the water. Wires, evidently for wireless, ran aft to the stern from the tip of one of the two periscopes. These were very short and mounted on the conning tower, which was 10 or 12 feet high. There were two guns, one forward and one aft of the conning tower. From the sound of the explosions of the guns and the column of water thrown up by the shells, the captain believes that they were either five or six inch.

Capt. John R. Edie, United States Navy (retired), who investigated the encounter, made the following report, dated Toulon, June 3, 1917, to the United States naval attaché, Paris:

1. Confirm following telegram sent last night on returning to Toulon:

"Sent statements from *Silver Shell* to-day. Chief Turret Captain W. J. Clark, in charge of guard, wants 150 rounds four-inch. Ship leaves Cette for Sumatra via Suez June 8. Clark also asks that supply officer, navy yard, New York, renew his expired allotment to his wife. Strong evidence submarine was sunk."

I questioned Clark very closely about the last two shots. He said that he purposely kept all his shots rather short and that none passed over the submarine. He was anxious for her to get a little closer. Just before the last shot, a shell from the submarine passed directly over the bridge of the *Silver Shell* and well beyond. At that moment he saw his twenty-fifth shot as a hit, "her bow seemed to raise up as though there had been an explosion in her, and then she plunged down with her stern up at an angle of 45°. He thought that he saw a cloud of white vapor as she went down, but that it may have been just spray.

He is sure that the time elapsed between her shell passing over the bridge and her disappearance was entirely too short for a gun's crew to have gotten back into the submarine. He said it was scarcely long enough to count 10, possibly between 5 and 10 seconds, but hard to estimate at such a time.

The captain, John Charlton, corroborated Clark's statements absolutely, and he said they were both watching the submarine with their glasses during the whole fight.

The captain said that Clark controlled the fire of his gun absolutely, and that the deliberate shooting and accuracy of the last shots were entirely due to the perfect control that Clark had over his gun's crew.

At the prefecture this morning there is no report of any submarine being sighted in that vicinity since the engagement with the *Silver Shell*.

During the fight the submarine made signals (radio) that the course was southeast to mislead the patrols. Those signals were received here. Capt. Charlton assured me that they never headed southeast and never anything but west by south to southwest until he went back on his course to north.

There is no doubt in my mind but that the submarine was sunk and that W. J. Clark deserves the credit for the good shooting and Capt. Charlton the credit for handling his ship in such a manner as to make the good shooting possible; he kept a straight course and did not zigzag at all.

STEAMSHIP "NYANZA," JANUARY 13, 1918.

Engagement of steamship *Nyanza* with submarine on January 13, 1918, 30 miles west-southwest of Penmarch. Chief Gunner's Mate Benjamin H. Groves, commanding armed guard, reported:

At 9.30 a. m., Sunday, January 13, 1918, a periscope, silver painted, was sighted off the port beam about 1,000 yards distant. At the same time the torpedo was observed approaching toward us. The helm was put hard a port, and the vessel's stern swung clear in time. The helm was then steadied, and the submarine brought astern (torpedo missed by about 10 feet).

We opened fire with the stern gun, the sights being set at 1,500 yards. The first shot fell about 100 yards short, and the sights were raised to 2,500 yards. The second shot fell about 30 yards short of the periscope.

The submarine fell rapidly astern, then came to the surface, started her oil engine, and gave chase. At about 7,000 yards the submarine opened fire with two guns, using

shrapnel. The guns were mounted forward and abaft the conning tower. In order to use them both at the same time she zigzagged, which caused her to drop astern. Then she would come after us again, approaching to within 5,000 yards. At first her shots fell short, but eventually he got our range and hit us five times. One shot passed through the after-gun platform, through the wood shelter house, through the iron deck—breaking a deck beam—exploding in the hold, and passing out through the side of the ship. One shot exploded in the armed guard's mess room, wrecking the place completely. Two shots exploded in a steam locomotive on deck, doing some damage. One shot hit the stern of the ship, but did not go through.

About 11.15 the submarine had our range good again. The captain of our ship zigzagged a little, which caused his shots to fall a little to the right or left of our ship. At the same time I had his range and fired four shells quick at 7,800 yards, causing him to come broadside to and keel over, then suddenly disappeared just as he had our own range good. This leads me to think he did not quit from choice, but from necessity.

The engagement lasted 2 hours and 30 minutes. I fired 92 rounds, and the submarine fired approximately 200. The guns' crew throughout the engagement behaved coolly, doing their duty and gaining experience which I think will be manifested in the next attack.

Three men of the guns' crew had their clothes torn more or less by the shrapnel. One engineer cadet was wounded, and taken to the hospital on arrival in port.

[First indorsement.]

UNITED STATES NAVAL FORCES IN FRANCE,
U. S. S. "PANTHER," FLAGSHIP,
Base Seven, January 18, 1918.

From: Commander United States naval forces in France.

To: Force commander.

1. Forwarded.
2. The *Nyanza* at the time of this attack, was proceeding independently to St. Nazaire, having become separated from New York convoy, *H. N. 35*.
3. The master of the *Nyanza*, the second officer, the lookout who sighted the torpedo wake, and the naval gun crew are recommended for commendation for their effective conduct on this occasion.

H. B. WILSON.

[Second indorsement.]

January 26, 1918.

From: Force commander.

To: Secretary of the Navy (Operations).

1. Forwarded, approving the first indorsement.
2. The *Nyanza*, was undoubtedly saved by the prompt work of the ship personnel and by the efficient work of the guns' crew.

SIMS.

S. S. "NAVAJO," July 5, 1917.

Engagement of the steamship *Navajo* with a submarine in the English Channel July 5, 1917. The official report of the court of inquiry made to the French Ministry of Marine from Havre concluded:

"The result of the inquiry is that the fight was very well conducted and that the men showed a very fine spirit, doing honor to the American Navy. The conclusion may be drawn that the submarine was hit and probably sunk."

Chief Boatswain's Mate H. L. Ham, commanding the armed guard, reported:

"On July 4, at 9.20 a. m., heavy gunfire was heard to starboard and shortly afterward the *Navajo* ran out of the mist and sighted a submarine firing on a British topsail schooner about 2 miles away. The *Navajo* changed her course, the fog shut down again and the 'sub' was lost sight of. This was about 55 miles northwest of Cape La Hague, France.

"About 2.55 p. m., the same day the fog lifted and two shots were heard from a point 1,500 yards distant. Upon observation a submarine was seen firing with both guns at the *Navajo*. The first shot dropped 50 yards short on the starboard beam; the second one went over the ship. The *Navajo* was swung, bringing the submarine about three points on the starboard quarter, and opened fire with her after gun.

"The submarine fired about 40 shots during the engagement, which lasted 40 minutes, one of which hit the *Navajo* underneath the port counter. This shell exploded before hitting the ship and displaced some of the plates, causing the *Navajo* to leak.

"The *Navajo* in return fired 27 shots, the last two of which were hits. The twenty-seventh shot struck the submarine just forward of the conning tower where the ammunition hoist was located, causing an explosion on board the submarine which was plainly heard on the *Navajo*. The men who were on deck at the guns and had not jumped overboard ran aft. The submarine then carted forward at almost 40 degrees and the propeller could be seen lashing the air. Nobody was seen coming up through the conning tower and jumping into the sea, nor were any survivors seen."

The commander of the armed guard concluded: "It is my opinion that the submarine was sunk."

STEAMSHIP "*BORINQUEN*," October 7, 1917.

Encounter of the steamship *Borinquen* with submarine on October 7, 1917, 11.45 p. m.; latitude 47° N., longitude 8° 05' W.

Chief Gunner's Mate T. J. Beerman, commanding armed guard, reported:

"Submarine was laying to when first sighted. We think she was receiving news from her headquarters. After gun could not bear on her then and while the trainer was training gun around to bear, loader fired pistol to wake up men in the shelter house, at the same time hoisting our colors. Pointer turned on lights and dropped sights from 500 yards to 100 yards. As soon as after gun could bear she opened fire. I did not see the first shot, but petty officer said it went just over top of submarine's conning tower. I saw the second shot hit, exploding and carrying away the conning tower. She was about three points abaft to port beam. The captain putting stern to submarine, the third shot was fired about astern. I saw it hit and explode. Before the helmsman could get control of ship the submarine lay off the starboard quarter in trough of sea. After second shot the submarine seemed to be stopped and lay in trough of sea at the mercy of the gun. Pointer raised sights to 300 yards and fired a fourth shot, this fourth shot falling 10 to 25 yards short. The last seen of her she was going down on swell, listed to port with her bow sticking in air and her stern down. She was going down in an upright position."

STEAMSHIP "*NORLINA*," June 4, 1917.

Engagement of steamship *Norlina* with submarine June 4, 1917; latitude 56° 32' N., longitude 10° 46' W.

Chief Boatswain's Mate O. J. Gullickson reported:

"At 6.30 p. m. man of forward gun platform shouted 'torpedo.' First mate, Mr. Robinson, lieutenant United States Naval Reserve Force, a Greek helmsman, and myself being on the bridge, the captain having just gone below. Wheel was put hard astarboard, toward the torpedo. The torpedo hit just abaft the beam glanced off aft around the stern, and sank. The first mate sounded the 'abandon ship' signal; all hands made for the lifeboats, the boats being lowered. Capt. J. Foster, lieutenant commander United States Naval Reserve Force; Mr. Robinson, first mate, lieutenant United States Naval Reserve Force; Mr. Lloyd, second mate; P. Savage, B. M. first class; and myself remained with the ship. Inspected the holds, engine room, and sounded the bilges. Found ship not to be leaking, and called all hands aboard, as torpedo apparently did not explode.

"As boats came alongside, a periscope was sighted off the starboard beam. Guns were manned; commenced firing from forward gun range 2,000 yards. In the meantime the captain had gotten the engineers below and we got under way, heading toward periscope. Continued firing from both guns, all shots coming very close to the periscope, submarine changing speed.

"Suddenly shot from forward gun; hit just in front of periscope, making it submerge, and a light blue smoke come up from astern of the submarine. Periscope appeared again, range now 600 yards, when a shot from the after gun hit it square on the water line, making small bits of steel fly, which may have been bursting of shell and causing a great commotion of bubbles, etc., in the water.

"In the meanwhile the captain, seeing the submarine getting closer all the time and expecting another torpedo any second, ordered all engineers on deck, causing the ship to be absolutely still in the water during most of the firing. Hoisted in all boats, laying to from 6.30 until 9.05 p. m., seeing no more of submarine, which was apparently either sunk or badly damaged."

The *Norlina's* master, Capt. J. Foster, made this entry in the ship's log:

"Monday, June 4, at 6.30 p. m., when in latitude 56° 38' north and longitude 12° 20' west, with Inishtrahull Island bearing south 66 east true, distant 180 miles, the ship was attacked by a submarine with her periscope only showing, which suddenly appeared off the port beam.

"The ship was hit about amidships by a torpedo, which apparently failed to explode. Not knowing the extent of damage done to the ship, the engines were stopped, the boats lowered, and all the crew, except the master, first and second officers, chief boatswain's mate, United States Navy, in charge of the armed guard, and one of his men, boatswain's mate, first class, United States Navy, abandoned the ship.

"As the vessel did not appear to settle the bilges were sounded, and as they proved dry the boats were called alongside, the crew gotten aboard, and guns manned just as the periscope of the submarine was seen approaching off the starboard beam.

"The naval crew began firing with both forward and after guns, and after 17 shots succeeded in apparently knocking away the periscope, as it disappeared and was not seen again.

"It seems certain that the submarine was either sunk or seriously disabled, for the ship remained in the vicinity nearly two hours getting the boats up. At 9.05 the ship was put on her course and proceeded. The range given the gun which knocked away the periscope was 600 yards."

STEAMSHIP "W. H. TILFORD," June 8, 1917.

The steamship *W. H. Tilford* in encounter with submarine on June 8, 1917. Commander armed guard reported:

"At 11.40 a. m., when this vessel was off Spezia Bay, Italy, a periscope moving parallel to the course of the vessel was sighted about 1,500 yards off the starboard beam; 20 rounds were fired rapidly. Some of the shells took effect, because the submarine came to the surface and made for the beach, where the escort, a small Italian torpedo boat, took charge of her."

STEAMSHIP "CHINCHA," January 18, 1918.

The steamship *Chincha* in encounter with a submarine on January 18, 1918. Chief Gunner's Mate E. E. Nordquist, commanding the armed guard, reported:

"On January 18 at 7.25 a. m., off the Spanish coast about 2½ miles off Sabinal Point an object like an enormous whale showed itself off our port quarter about 2,000 yards away. At 7.45 a. m. the wake of some big object was seen off our starboard quarter about 2,200 yards away. As it came up I had a good look at it and decided it was one of the latest type submarines I had heard of, without conning tower or periscope. It ran close to the surface, showing its bow and flush deck occasionally. I could see its bow waves and churn of its propeller exactly the same as I had seen submarines in maneuvers around the United States coast when awash, but minus conning tower and periscope.

"I commenced firing, range 2,200 yards. After third shot all shots fired were good. Fired 10 shots, when submarine disappeared. At 8.15 submarine again showed itself about 2,000 yards off our starboard quarter. Commenced firing fifth shot, which caused an explosion and a volume of black smoke was seen. Submarine now turned around and headed away from us. As submarine did not dive I continued the fire. Although nearly all shots seemed to hit, but five exploded. The fourth explosion caused another volume of black smoke. The submarine did not try to dive, but seemed to be trying to come up. As I thought she was trying to come up for shell fire at us I kept on firing.

"The submarine now headed for the beach about 1½ miles away; 29 shots had been fired at her the second time. One of the last shots had hit and exploded close, or at where her propellers were churning. As she was heading for the beach and quite a ways off, I ceased firing. The bow swells of the submarine could still be seen, but the churn of the propellers had ceased. Shortly all disappeared, about 4,000 yards away. Last range, 3,600. The depth where the submarine disappeared was about 10 or 15 fathoms. Where we were running it was 25 fathoms of water, so submarine could have dived toward sea if there was not enough depth toward land."

All of these are just samples and extracts of reports, and I think they show clearly that Admiral Sims committed a very great error and did a great injustice to the American commanders when he permitted the Admiralty of any other country to decide what credit should be given to American ships encountering submarines.

THE NAVAL CONSULTING BOARD ORGANIZED IN 1915 AS AN AGENCY OF
PREPAREDNESS.

You have heard many jeremiads about the lack of vision of the Navy Department before our entrance in the war. These criticisms in the main have come from critics who themselves never proposed any plan for readiness. So far as the civilian Secretary of the Navy is concerned, he not only in the fall of 1915 urged upon Congress the great three-year building program and a large increase in regulars and additions to the reserves, but in the early summer of 1915 sought to secure the application of the best brains in America upon meeting new naval problems. I procured an interchange of views and joint study by the ablest engineers, scientists, and experts in civilian life and the ablest experts in the naval service. On July 7, 1915, I sent the following letter to Mr. Thomas A. Edison, an inventor and engineer and thinker of world reputation, whose ability is exceeded only by his noble patriotism:

JULY 7, 1915.

Hon. THOMAS A. EDISON,
East Orange, N. J.

DEAR MR. EDISON: I have been intending for some time to write you expressing my admiration at the splendid and patriotic attitude you have taken, as reported in the public press, in refusing to devote your great inventive genius to warlike subjects except at the call of your own country. Such an attitude, in these all too commercial times, is one that should be an inspiration to our young men and a lesson in the pre-eminent right of one's own country to the best that its citizens have that will be of tremendous benefit to us all.

I have deferred writing you, however, because, at the same time, I wanted to take up with you another matter to which I have given a great deal of thought—a matter in which I think your ideas and mine coincide, if an interview with you recently published in the New York Times was correct. There is a very great service that you can render the Navy and the country at large and which I am encouraged to believe, from a paragraph in Mr. Marshall's interview, you will consent to undertake, as it seems to be in line with your own thoughts.

One of the imperative needs of the Navy, in my judgment, is machinery and facilities for utilizing the natural inventive genius of Americans to meet the new conditions of warfare as shown abroad, and it is my intention, if a practical way can be worked out, as I think it can be, to establish, at the earliest moment, a department of invention and development, to which all ideas and suggestions, either from the service or from civilian inventors, can be referred for determination as to whether they contain practical suggestions for us to take up and perfect.

We, of course, receive many suggestions, but our only way of handling them at present is to leave them to various bureaus already overcrowded with routine work, and it is not always possible to give the necessary attention to propositions that are not so definitely worked out as to make them immediately available for the service. Ideas which contain the germ of improvement can not always be given attention they deserve, as there is at present no adequately equipped department to which to send them for the careful study required. In addition, our naval officers, particularly those at sea, are in a position to note where improvements are needed and to devise ways in which those improvements can be made. They have, however, neither the time nor the special training, nor, in many cases, the natural inventive turn of mind needed to put these ideas into definite shape. Were there a place where they could be sent to be worked out and perfected, I am sure we would get many noteworthy improvements from this course alone. We have, of course, in the Navy Department energetic and wide-awake bureaus, headed by experts in their particular lines of work who devote all the time they possibly can to a study of this problem. They have made important contributions to the improvements in the implements of naval warfare and are doing all that is possible with their other large duties. There are, unfortunately, no officers now detailed who can take time from the mass of work which they are called upon to do in order to devote it fully to studying new suggestions and inventions.

The department is also unprovided with the best facilities for work of pure experimentation and investigation, with the exception of our testing station at Annapolis, which is, as yet, a small affair. Most of all, as I have said, there is no particular place or particular body of men, relieved of other work, charged solely with the duty of either devising new things themselves or perfecting the crude ideas that are submitted to the department by our naturally inventive people.

I have in mind a general plan of organizing such a department which is still very hazy as to details, but which, in a general way, meets, so far as the Navy is concerned, with your ideas of such a department for the Government in general. I want to use such facilities for experimental and investigation work as we have, under the direction of men particularly selected for ability shown in this direction, to whom would be referred all suggestions of new devices sent in to the department and who would work out such ideas to a practical point. Such a department will, of course, have to be eventually supported by Congress, with sufficient appropriations made for its proper development, although I feel that we can make a start with the means at hand.

To get this support, Congress must be made to feel that the idea is supported by the people, and I feel that our chances of getting the public interested and back of this project will be enormously increased if we can have, at the start, some man whose inventive genius is recognized by the whole world to assist us in consultation from time to time on matters of sufficient importance to bring to his attention. You are recognized by all of us as the one man above all others who can turn dreams into realities and who has at his command, in addition to his own wonderful mind, the finest facilities in the world for such work.

What I want to ask is if you would be willing, as a service to your country, to act as an adviser to this board, take such things as seem to you to be of value but which we are not at present equipped to investigate, and to use your own magnificent facilities in such investigation if you feel it worth while. For our part, we will endeavor not to bother you with trivial matters as we will probably have sufficient facilities to handle such small matters as they come up. This is a great deal to ask and I, unfortunately, have nothing but the thanks of the Navy and, I think, of the country at large, together with the feeling of service to your country that you will, to offer you by way of recompense; yet, so clearly have you shown your patriotism and your unselfish loyalty to your country's interests, that I feel justified in making this request.

We are confronted with a new and terrible engine of warfare in the submarine, to consider only one of the big things which I have in mind, and I feel sure that, with the practical knowledge of the officers of the Navy, with a department composed of the keenest and most inventive minds that we can gather together, and with your own wonderful brain to aid us, the United States will be able as in the past to meet this new danger with the new devices that will assure peace to our country by their effectiveness.

If you feel that you would be willing to do this, I would like a little later, when my plans are somewhat more matured, to consult with you as to the details of the organization proposed so that I can make it as effective as possible for the purpose intended.

With you it might be well to associate a few men prominent in special lines of inventive research, and I would like also to consult with you as to who these men should be. It is, of course, your aid that I rely upon most, and if you are not able for any reason to do this, I will frankly hesitate to undertake the matter at all. Should you feel like accepting the task, however, I know the relief which the country would feel in these trying times at the announcement that you are aiding us in this all important matter.

If you could let me know as early as you may, how you feel about this, I would appreciate it, as everything waits upon your answer, and I think we can not be too expeditious if we are going to take this matter up at all.

Sincerely, yours,

JOSEPHUS DANIELS,
Secretary of the Navy.

That letter, Mr. Chairman, was actually written in July, 1915, after much consideration, in 1915 a short time after the sinking of the *Lusitania*, and I submit it as showing that we were very alert at that time.

The CHAIRMAN. That is also in your report?

Secretary DANIELS. Yes.

Upon receipt of the above letter Mr. Edison sent an assistant, Mr. Hutchison, to Washington, who communicated Mr. Edison's views,

of the best method of securing the cooperation of the engineering and inventive talent of the country. Some days later I went to Orange, N. J., to confer more fully with Mr. Edison upon the best way of securing the men who were best qualified to render the highest and most useful service. We both felt that its usefulness was dependent upon its freedom from personal or political influences, and it was decided that instead of the Secretary of the Navy inviting certain men eminent in their profession to become members of the board it would be wisest and secure larger cooperation by asking 11 of the best scientific societies in America each to select two of its members as members of the naval consulting board, men who possessed a high order of patriotism, wide business experience, and were of such broad mind that the inventive genius of America could have an opportunity of submitting their ideas for judgment without fear or prejudice.

The following is a copy of a letter I addressed to the president of the American Institute and a like letter was sent to the president of 10 other societies:

THE PRESIDENT AMERICAN INSTITUTE, SOCIETY, ETC.

MY DEAR SIR: A few days ago, as you have doubtless seen in the papers, desiring to make available the latent inventive genius of our country to improve our Navy, I requested Mr. Thomas A. Edison to become chairman of an advisory committee of eminent men who would make up the committee. Mr. Edison, with the patriotism characteristic of American inventors, accepted the call to duty. I am writing to ask the membership of your institute, society, etc., to give practical and valuable aid and needed cooperation by selecting representatives of their body to serve as members of the advisory committee. It is believed that the best results can be obtained only by such selection of the membership as will be representative of the inventive genius and scientific knowledge found in the membership of your own and kindred societies.

Will you not, as president of the American Institute, society, etc., arrange to secure the selection of two of its members to serve on this advisory board? I feel that the work your institute, society, etc., has done has been such as to give it the right to be, in a way, officially represented, and the Navy Department desires in this way to testify to its own appreciation of the splendid work for our country that your institute, society, etc., has done. In addition, I feel that the judgment of your members as to who is best qualified among you to serve on this board will be far better than my own.

I am going to ask you, by a poll, by letter of your members, or in whatever way seems to you most certain of securing the men desired by the majority of your organization, to choose two of your members to serve on this board, and it will give me great pleasure when you have furnished me these names, to extend the gentlemen the formal invitation of the department.

We are anxious to begin as soon as possible, and, if your institute, society, etc., can furnish me the names at an early date, it will help the prompt organization of the advisory board very much. In adopting this course, I have the emphatic approval of Mr. Edison, and he agrees entirely with me that your institution, society, etc., should be represented in this way and that no better method of getting the kind of men we need could be devised.

The public press has so fully set forth the general plan that I feel it unnecessary to explain to you the purposes of this board, but am inclosing a copy of the original letter I wrote to Mr. Edison and the statement given to the press upon receipt of his message that he would serve.

Thanking you in advance for the great service which I feel sure your institute, society, etc., will be glad to render to our common country, I am

Sincerely, yours,

JOSEPHUS DANIELS,
Secretary of the Navy.

The result of this request was the formation of the naval consulting board and the following-named membership:

American Mathematical Society: Dr. R. S. Woodward, Dr. Arthur Gordon Webster.

American Society of Civil Engineers: Mr. A. M. Hunt, Mr. Alfred Craven.

American Aeronautical Society: Mr. M. B. Sellers, Mr. Hudson Maxim.

Inventors' Guild: Mr. Thomas Robins.

American Institute of Mining Engineers: Mr. William L. Saunders, Mr. Benjamin B. Thayer.

American Electro-Chemical Society: Mr. Lawrence Addicks, Dr. Joseph W. Richards.

American Society of Mechanical Engineers: Mr. W. L. R. Emmet, Mr. Spencer Miller.

American Society of Aeronautic Engineers: Mr. Elmer A. Sperry, Mr. Bion J. Arnold.

American Society of Automotive Engineers: Mr. Howard E. Coffin, Mr. Andrew L. Riker.

American Chemical Society: Dr. L. H. Baekeland, Dr. W. R. Whitney.

American Institute of Electrical Engineers: Mr. B. G. Lamme, Mr. Frank J. Sprague.

And Mr. Thomas Alva Edison, with his assistant, Dr. M. R. Hutchinson.

It was understood that Mr. Edison, elected as he was unanimously as president of the board, would not be requested to give his time to the administration, organization, management, and direction of the activities of the board, but would be free to carry on his research on naval problems in such a way as he elected, and therefore the administrative work and development plans devolved upon the elected chairman, Mr. W. L. Saunders, a well-known engineer and business executive of New York, whose service can not be too highly commended.

Mr. D. W. Brunton, chairman of the war committee of technical societies, was later elected and appointed a member of the board.

In an act of Congress making appropriations for the Navy—the greatest single naval act in American history—approved August 29, 1916, there was included a provision providing for the expenses of the Civilian Naval Consulting Board, thus legalizing the board and making it the chief unofficial research organization working with and for the Government.

Before the entrance of America into the World War the board was occupied with the study of varied problems, some presented by the department and some initiated by members and others, and plans for the formation of a naval research and experimental laboratory. Mr. Edison and some members of the committee thereon appeared before the House Naval Committee and presented well-considered plans and specifications for its construction, and Congress approved. War delayed its erection, but it will be realized shortly.

In accordance with one of the objects intended, viz, the efficiency of the Navy for war, the board took up the question of national preparedness, and in conjunction with the department, undertook under the expert direction of Mr. Howard E. Coffin, a campaign of industrial preparedness and obtained results unheard of in any other country. It won unstinted praise from the press of Great Britain and other countries and the warm admiration of all our own forward-looking American citizens.

Early in 1916 a number of problems were formulated by the different bureaus of the Navy Department and distributed to the appropriate committees for solution.

The naval fuel oil board requested the assistance of the consulting board and a combined meeting was held in New York, at which were gathered many of the best known authorities on the subject and information was gathered that has been of great value.

Early in 1917, when the prospect of an early entrance into the war became great, the activities of the board greatly increased and on March 3, 1917, before we entered the war, the special problems committee that had been formed at an early meeting of that year, called a special meeting in New York City. This meeting was attended by members of the board, 35 additional prominent scientists, officers from the department; the submarine flotilla, the torpedo station at Newport, and Admiral Sims, then president of the War College.

Subjects relating to preparation for war, such as the detection of the submarine, protection against torpedo attack, the destruction of the submarine when detected, and mine attack and defense. Confidential information was freely given by the naval officers present and full discussion was encouraged. Out of this meeting there grew the stations for experimental work at Nahant and later the concentration of scientific work at the naval station at New London.

In April, 1917, Mr. Edison dropped all of his personal work and devoted his entire time to naval research and experiment. In all he investigated 46 separate and distinct subjects, among them torpedo detection, escape therefrom, invisibility of ships, and evolutions in escaping submarine and torpedo attack; and gave himself fully and wholly to a duty which will always endear him to the American people.

In the spring of 1917, both the office instituted by my order for the consideration, correlation, and filing of suggestions and ideas in conjunction with the bureaus of the department and the naval consulting board, were so overwhelmed with correspondence, that I directed the establishment of an office in New York under the direct superintendence of Mr. Thomas Robins, the secretary of the board. This office soon grew to considerable proportions, employing some 12 experienced engineers as examiners, the majority of whom volunteered their services, who were assisted by a large force in answering, filing, and mailing the vast correspondence of this office. In order to expedite action and to accommodate the inventors who desired a personal interview, an office was established in Chicago with the member from that city and the committee of associate members who so ably assisted with the industrial preparedness campaign. A similar office was established in San Francisco.

For the instruction of the large number of citizens submitting suggestions the department and the board prepared bulletins and these were issued to all who desired them.

To assist the department and confine its work to purely naval subjects the ship protection committee of the Emergency Fleet Corporation was formed at the request and instigation of the chairman of the board, and one of the most experienced members of this committee was the chairman of the committee on marine engineering and ship propulsion of the naval consulting board. This relieved

the Navy of the consideration of devices applicable to merchant vessels.

Mr. B. B. Thayer, the vice chairman of the board, was of special value in obtaining officers for appointment in the naval reserve for electrical and engineering duty; also for duty on submarines. His committee nominated such a high class of applicants that the service was materially benefited thereby.

To enumerate the large number of subjects considered of a purely technical character, is unnecessary, but the board's contribution toward success was large. Its membership was imbued with a most patriotic spirit and a whole-souled desire to do everything on their part to win the war, and its service will rank as among the most important of all agencies.

The conception and formation of this board and its work of industrial preparedness led the way and had considerable influence in the constitution of the Council of National Defense and the valuable work done by its affiliated bodies. Upon the organization of the Council of National Defense, the Naval Consulting Board, with Mr. Edison as chairman, was requested to act as the naval board of inventions. It accepted, and in peace and in war is the national agency looked to for this special service. A statement of the suggestions, experiments, and achievements of the Naval Consulting Board, which began in 1915 and is to-day an active organization with important duties, requires a whole book to give an appreciation of its large usefulness. Such a book has been prepared and will soon come from the press, and will be one of the most interesting and valuable histories of war work, preparations for war, and vision of present day duties of increased naval efficiency.

REPORTS OF COMMITTEES OF CONGRESS AND STATEMENTS BY REPUBLICAN AND DEMOCRATIC LEADERS REGARDING THE NAVY'S PREPAREDNESS AND EFFICIENCY.

Leaders of both Senate and House, Republicans as well as Democrats, have paid the highest tributes to the efficiency of the Navy and the way in which it performed its work during the war.

The Naval Affairs Committee of the House, in December, 1917, appointed a subcommittee to "inquire into the activities of the Navy." That committee made a thorough investigation of the entire Naval Establishment, making a study of our various activities ashore and afloat. That committee, in its report made March 11, 1918, was unanimous, being signed by every member, Republicans as well as Democrats, set forth, in detail, how the Navy had met the many difficult problems of production and operations; how it had increased many times its personnel and the number of ships in service, and declared it "a remarkable record of achievement." That report concluded with the words: "Sirs, all is well with the Fleet."

The full report of that committee, presented March 11, 1918, nearly a year after our entrance into the war, is as follows:

The CHAIRMAN. Was this report published?

Secretary DANIELS. Yes.

The CHAIRMAN. So that we can get it from that?

Secretary DANIELS. Yes; it is in the report of the Secretary of the Navy, Appendix A, and I am certain that it was published by the committee.

The CHAIRMAN. It is in your report, at any rate?

Secretary DANIELS. It is in my report, I think, for 1918. I will not read it now. I trust you gentlemen will read it though. It is a document of historical importance.

(The report referred to is here printed in the record as follows:)

REPORT OF THE SUBCOMMITTEE FOR INVESTIGATION OF CONDUCT AND ADMINISTRATION
OF NAVAL AFFAIRS.

Hon. L. P. PADGETT,

Chairman of the House Committee on Naval Affairs.

The subcommittee appointed, just prior to the holiday recess, to inquire into the activities of the Navy, since our entrance into the war, submits to the full committee the following report:

We have had before us the Secretary of the Navy, Chief of Naval Operations, the chiefs of all the bureaus, the commandant of the Marine Corps, Chief of Naval Aviation, the Director of Target Practice, also other officials and witnesses. Many of our hearings were in executive session, full reports of which are now in the hands of the secretary of this committee and open to the inspection of its members. Much of the testimony submitted to us has been heard by the full committee in its consideration of the pending appropriation bill, and this fact assures, we think, the entire committee's ready concurrence in the following conclusions reached by us:

First. All appropriations have been expended or obligated with judgment, caution, and economy, when you consider that haste was necessary to bring results and abnormal conditions obtained in reference to all problems of production or operations.

Second. The Navy, with limited personnel and material, was suddenly called to face many difficult and untried problems in sea warfare, and has met the situation with rare skill, ingenuity, and dispatch, and a high degree of success.

Third. The efficiency of the Navy's prewar organization, the readiness and fitness of its men and ships for the difficult and arduous tasks imposed by war were early put to the acid test and thus far in no way have they been found wanting, and we feel that the past 12 months presents for the Navy a remarkable record of achievement, of steadily increasing power in both personnel and material, of rapidly expanding resources, and of well-matured plans for the future, whether the war be long or short duration.

Our committee undertook this investigation expecting to find that no matter how well in the main the Navy had made its expansion into a war force we would find some matters subject to adverse criticism. We brought with us the desire to cooperate with the Navy to the one end, success. An examination of the records will show how little occasion we have had to find fault. Some mistakes have, of course, been made, yet the Navy has shown its strength by the manner of its correction.

It is a matter of regret that the great demand upon the ship-construction capacity of the country, coupled with the urgent demand for a large increase in the destroyer force, has made necessary a temporary abandonment in part of the Navy shipbuilding program. The Navy greatly needs both scout and battle cruisers, without which our dreadnaught fleet loses a large part of its fighting potentiality. We approve the principle and earnestly favor a resumption of the building program, as soon as conditions permit, and can not too strongly emphasize the importance of providing both scout and battle cruisers.

That the expansion of the Navy has resulted in gain rather than loss of efficiency is primarily due to one factor, preparedness. This, we think, very fully appears from our reports on the bureaus, the office of operations, and the fleet, which follow:

BUREAU OF NAVIGATION.

The measure of the efficiency of the Navy is the efficiency of its personnel, and your committee feel that this important matter has been well handled by the Bureau of Navigation, of which Admiral Leigh C. Palmer is the chief. This bureau is charged with the duty of supplying both officers and enlisted men and of providing for their proper training and assignment to service. In March last we had only about 55,000 men, including reserves, in the naval service. This number has been rapidly

increased until it approximates now 300,000. All enlistments are practically for the full four-year period (the full time permitted).

Under the enlistment plan the country was divided into four districts, the purpose being to reach the parents of these districts and to explain the real advantages of the Navy. The plan proved so successful that every district turned in far more than its quota of enlistments, which necessitated the slowing down of recruiting to prevent crowding the men in training stations. At the commencement of the war our training stations could only accommodate about 6,000 apprentice seamen, but Admiral Palmer early assumed the responsibility of increasing the housing rooms at the various stations, and we now have at the regular training stations barracks for more than 50,000 men. Additional barracks and schools have been provided in every naval district for the training of officers and men, and many schools and colleges have likewise been called on and are now assisting in the training of specialists along different lines. These training stations and schools cover a large number of trades in addition to the regular naval work, including thorough courses for divers, electricians, radio men, carpenters, machinists, blacksmiths, coppersmiths, bakers, Hospital Corps men, camouflage men, musicians, gunners, signalmen, steel and concrete construction men, quartermasters, helmsmen, lookouts, armed guards crews, men for submarine work, motor boat and torpedo men, etc. Training was also started in the battleship force, and every vessel at home and abroad has become an active training school for officers and men in addition to carrying out the other important duties of the fleet. Trained destroyers and patrol-boat men from the war zone are being brought back from time to time as nucleus crews to man new vessels that are now being constantly put in commission. Since April last more than 1,000 vessels have been put in commission by this bureau, including battleships, submarines, destroyers, transports, hospital ships, patrol vessels, mine layers, mine sweepers, submarine chasers, cruisers, colliers, supply vessels, converted yachts, gunboats, etc. The bureau deserves much credit for its promptness in filling all orders for trained personnel, and every vessel afloat, we learn, is now filled to the maximum complement desired by the officer in command.

The whole problem of training and supplying officers and men, Admiral Palmer assures us, has been worked out in detail for a year in advance, after first taking into consideration the number of vessels which will be completed and commissioned and the duties to which they will be assigned. This schedule shows where the supply of officers and men of the required rank and ratings will come from, where they will be trained, and where assigned. It allows for unforeseen casualties and new operations and, we are told, will automatically deliver the required number of trained officers and men for any activities authorized or contemplated now or in future, covering a period of several years. The Navy reserve force has been efficiently organized and many additional details of personnel have been met by the bureau, including the naval radio censorship, communication service, naval intelligence, and supply of reserve clerks for the bureaus.

Charts and navigation books and instruments of all kinds have been furnished the fleets in home and foreign waters, and we feel that the bureau wisely maintains the closest cooperation with the commander in chief of the Atlantic Fleet, and the commander of the forces operating abroad on the subject of supply and detail of personnel. Our committee has been impressed with the ability and systematic methods adopted by this bureau for the handling of these important matters intrusted to it.

THE MEDICAL DEPARTMENT.

The first battle of the war, that against disease, was fought and won by the Medical Department of the Navy, under Rear Admiral William Braisted.

After diplomatic relations with Germany were broken in February, 1917, recruits, we find, streamed into the service in increasing numbers, and in April there was grave danger that the overwhelming influx of volunteers would overtax all training stations and receiving-ship facilities and bring disaster to the Navy at the very beginning of the war by the introduction and spread of epidemic diseases which, unfortunately, were widely prevalent throughout the country at that time.

The Navy in this early critical period was fortunate in having as its Surgeon General a farseeing man, of the clearest judgment, who had the confidence of the medical profession at large and who inspired confidence and loyalty in his own corps. Admiral Braisted, possessed of unusual ability as an organizer and administrator, and an intimate knowledge of the needs of the service, was eminently fitted to direct the activities of the Medical Department. Patient and optimistic, and with a quiet force of character which accomplished results, he began at once, without delaying even for appropriations, to prepare for eventualities which he clearly foresaw. Except an occasional outbreak of those diseases which commonly occur among recruits, the

health of the Navy has been quite as good as in times of peace. In spite of all the difficulties in the way of rapid expansion and the sudden necessity for the training of new medical personnel and hospital corpsmen, the health of the force afloat has been even better than in peace times.

The Medical Department facilities have undergone tremendous development everywhere. The excellent and finely equipped base hospitals, which were built before the war, largely through foresight on the part of the Surgeon General, have been greatly expanded with a speed which could not have been attained if the organization of the Medical Department as a whole had not been carefully thought out long before the war came and plans perfected for the immediate enlargement of base hospitals and the construction of emergency hospitals of the finest type wherever necessary. The total bed capacity of naval hospitals was thus increased in a period of a few months from 3,800 to more than 15,000 beds. The mothers of the country can rest assured that in these hospitals their sons will receive excellent care and nursing and the most skilled treatment that modern medical and surgical knowledge permits. The naval hospitals at Great Lakes, Ill., and Norfolk, Va., are already two of the largest hospitals in the United States, and with the authorized additions to the Norfolk hospital it will be one of the greatest institutions of its type in the world. The Navy Nurse Corps, comprising women of the highest type in the nursing profession, has been increased to more than 700.

On board ship and at naval stations the health of the men is protected by all the safeguards known to preventive medicine. The Hospital Corps, upon which falls exclusively the nursing of the sick and wounded outside of hospitals, has been increased from 1,500 to nearly 9,000.

Hospital Corps training schools have been established in connection with the training stations at San Francisco, Great Lakes, Newport (R. I.), and Hampton Roads. In these schools young men of good character and aptitude are intensively trained for their duties at sea.

Foreseeing that the hospital ship now under construction, and which the Surgeon General had long asked for, would not be completed in time to meet the war needs of the service, two large liners were secured and converted into hospital ships to supplement the work of the hospital ship *Solara*. To assist the Army in bringing back the sick and wounded from abroad, Admiral Braisted arranged that the transports operated by the Navy should have ample Medical Department facilities and necessary equipment, and, so far as naval facilities exist, has assumed responsibility for the medical and surgical care of all Army sick and wounded who may be transported home on naval vessels from Europe.

For the care of our naval forces in England, France, and European waters, three base hospitals are already in operation abroad.

In expanding the Medical Department to meet the present and future needs of the Navy, we were glad to find that the needs of the increasing numbers of industrial workers and other civil employees in the large manufacturing plants in navy yards had not been overlooked. The peace-time humanitarian work is also being continued in connection with Haiti, Santo Domingo, Virgin Islands, Samoa, and Guam, involving a population of over 2,000,000 people.

It may well be said that the reason for this successful record is to be found in the bureau's preparedness, due to foresight and cooperation.

BUREAU OF SUPPLIES AND ACCOUNTS.

The Bureau of Supplies and Accounts is the Navy's great business office, and incidentally it is one of the biggest enterprises in the United States. Under its chief, Rear Admiral Samuel McGowan, it has established and well deserves a nation-wide reputation for business efficiency.

It has the responsibility of feeding, clothing, and paying the entire personnel of the Navy, and supplying all vessels of the Navy with stores and equipment for efficient operation. When war came, it found the bureau with a peace-time organization of 128 officers and civilians. That personnel, however, had been so constantly indoctrinated with the Paymaster General's policy of doing everything with a view of preparing for any eventuality, that it needed only augmentation to handle smoothly the vast increase in its daily business details. The personnel increased to more than 700, but the system remained unchanged, and the result was that 300,000 men and 1,100 ships were just as promptly and well provided for as 55,000 men and 300 ships had been before the war.

One of the most important problems the bureau had to solve was the placing of contracts and securing delivery of large stocks of winter clothing for a Navy that by winter had increased many times its original size.

This could not be accomplished by merely placing the contracts and then waiting delivery. The requirements for the Army and our Allies had made such a demand on the mills and on the manufacturers that all contracts had to be placed with the greatest care and under varying conditions to meet the Navy's immediate needs. The Paymaster General sent a number of commissioned officers to the mills and factories to talk to the employees and encourage them to increase production to the limit. These efforts were so successful that all men afloat and at the training camps and stations were, before cold weather came, provided with adequate outfits of winter clothing, including overcoats, heavy blankets, etc. The deck force of the destroyers, battleships, and other vessels were furnished with special articles of winter clothing, wind, and rain proof suits, heavy woolen socks, boots, etc., and thus well prepared to endure wind and weather.

The daily stocks of raw materials were rapidly increased and storehouses were erected at certain east coast yards to meet the enlarged demands for fitting out the greatly augmented fleet. By wise foresight, the bureau met immediate needs promptly, and in addition, provided a reserve supply of the more important articles of raw materials, such as tin, copper, steel, etc. The bureau, we find, has preserved its well-established "open-door" policy with respect to purchases of every kind for the Navy Establishment. Some idea of the magnitude of the increase in the Navy's purchases since the war may be gained from the fact that the total expenditure for an entire year in the comparatively recent past did not exceed nineteen millions, whereas expenditures are now being made at the rate of thirty millions a day.

The fact that the Navy has been able to secure prompt deliveries almost without exception under its contracts is due in a large measure to its elimination from the bidding list of all failing to comply with the following requirement of article 3722 of the Revised Statutes:

"No person shall be received as a contractor who is not a manufacturer of or regular dealer in the articles which he offers to supply."

When war came, the Navy by following this policy had a bidding list of contractors of known reliability, and as an automatic result, prompt in deliveries.

The Paymaster General, in all but a few confidential purchases, has insisted rightly that publicity protects the Navy and encourages competition, and this policy has been followed strictly in making purchases, and as a result, quality, quick deliveries, and lowest market prices have been obtained.

The finest spirit of cooperation exists in this department and one of loyalty to its chief and to its senior aid, Rear Admiral C. J. Peoples, the youngest officer of his rank in the Navy and one of the most efficient.

BUREAUS OF CONSTRUCTION AND REPAIR AND STEAM ENGINEERING.

We were impressed with the efficient and expeditious methods employed by the Bureaus of Construction and Repair, Rear Admiral David W. Taylor, and of Steam Engineering, Rear Admiral Robert S. Griff n, in handling the many difficult problems suddenly imposed by the war. Much of the information furnished us in this connection can not, for obvious reasons, be now disclosed, but in due time the country will understand how the skill and inventive genius of these bureaus have contributed to the efficiency of our own and allied navies.

We found that extensive preparations had been made by these bureaus before the outbreak of war; that large stores of material necessary for the repair and replacement of the ships in service had been accumulated and extensive contracts made for stores not ordinarily carried in peace times; that repair ships were thoroughly equipped and were ready to sail in condition to make any repairs that might be necessary in the destroyer force. As a result our destroyer force in the war zone has been maintained in a high state of efficiency, and had all repairs made without interfering with their service. Much of the credit for this is due not only to the seamanship and skill of their officers and crews, but to the thorough manner in which American crews understand the materials in their charge and the skill with which they utilize the same.

Navy yards were fully supplied with materials needed in connection with the big task of converting merchant vessels taken over, and arrangements had been made to supplement the navy yards by private yards in the vicinity, working under contracts arranged before the outbreak of war.

Many alterations were begun fully a month before hostilities were declared and extended to the point of actually making contracts in anticipation of the passage by Congress of appropriations for the purpose.

When it came to building additional destroyers, especially those of the large program, it was found that the shipbuilding facilities of the country were fully absorbed with the vessels then under construction and that it would be necessary to create

new facilities. The work involved the expansion of existing shipyards, the creation of entirely new yards, machine and boiler shops, great increases in forging facilities, and facilities for building auxiliary machinery. The plans adopted required more than doubling the capacity available last summer for building destroyers, and that capacity was materially greater than before the war. It is gratifying to report that during 1918 destroyers will be built in from a third to a half of the time taken under prewar conditions.

In spite of the speed in construction, these vessels are not being slighted in workmanship or appliances. They are equal in every respect and superior in some to our latest destroyers, and will be provided with all fittings for the comfort and convenience of the crew, and for military purposes.

The committee was given full information in regard to the damage done to the German ships which were turned over to the Navy and the methods followed in repairing them, and was impressed with the fact that while unusual and novel methods were resorted to to put these ships in service as quickly as possible, there has been up to date no case of failure or of weakness developing in any repairs undertaken by the Navy Department. With the completion of the *Leviathan* (*Vaterland*) the last one was repaired and put in service, making upward of a hundred German ships now flying the American flag.

A side light on German methods was furnished by a statement that there was found on one of the German ships a detailed memorandum of all damages that had been done, with a notation opposite each item as to whether the damage could or could not be repaired. In almost every case, the notation was "Can not be repaired," and the manner in which the work was accomplished is still no doubt a profound mystery to the skippers and engineers of the German ships who are now interned.

The committee found that no necessity had arisen for any change in the system of either of these bureaus, which readily expanded to meet the emergency. They have not only had at their command the assistance of American inventors and experts, but have been given full information of the devices developed and progress made by other navies and have worked in close conjunction with our allies.

BUREAU OF ORDNANCE.

The importance of the adequacy in power and quantity of the Navy's ordnance can not be overemphasized.

The Bureau of Ordnance, under Rear Admiral Ralph Earle, has fully satisfied the demands made upon it by the vessels operating in European waters. A letter from Vice Admiral Sims compliments the work and spirit of the Ordnance Department. Other officers in the war zone, writing in similar vein, have given like testimony.

As a preliminary to its hearings, the committee visited the offices of the Bureau of Ordnance and personally examined into the organization and operation of the bureau's administrative details. The committee was impressed with its business organization and capacity to handle the war work that comes under its immediate cognizance, the procurement of guns, mounts, shell, powder, fire-control appliances, and the numerous accessories required in the arming of our naval forces.

The signing up of a contract marks the beginning of action; the follow up and thorough inspection systems and the policy of full cooperation with the manufacturer are employed to insure prompt delivery.

The organization of the bureau had been developed so as to make it an organization for war, and in consequence it is working smoothly and efficiently, although the expenditures have increased from about \$30,000,000 to more than \$560,000,000. It has been augmented by taking into it retired officers, officers of the Naval Militia, officers of the Coast Guard Service, former graduates from Annapolis, and able men from civilian life as needed.

The bureau has developed much new material, including depth charges, submarine bomb, nonricochet shells, bomb-dropping devices, howitzers, guns for throwing depth charges, smoke-screen apparatus, heavier ordnance on all craft, and many other important designs which we feel it unwise to discuss.

Where there were shortages in the market of various materials, the bureau took steps immediately to develop new sources of supply. It placed contracts rapidly, and the committee is confident that the Navy's needs for ordnance during this war are fully covered by existing contracts and with the capacity now under its control.

Over 1,100 vessels have been furnished and equipped with guns, ammunition, spare parts, and all their auxiliaries since the fitting out of the *Campana*, the first ship to be so fitted out, on March 14, 1917.

Reserves of ammunition have been acquired, and money placed at the disposal of the Bureau of Ordnance we find has been spent wisely and has been obligated practically as soon as it became available.

The Navy's industrial ordnance plants have been and are being expanded as rapidly as practicable without interfering with their production. Without direct control of the gun factory, torpedo station, naval proving ground, powder factory, and ammunition depots the work accomplished would have been impossible.

It may be pertinent to here state that the bureau has furnished, in appreciable quantities, the Governments of England, France, and Italy with guns from the largest to the smallest caliber, together with proper supplies of ammunition therefor and is continuing the supply of such munitions to our allies. In addition to vessels of the regular navy of our allies, it has armed a considerable number of their merchantmen.

Depth charges, which the committee thinks may be properly termed "the best weapon against the submarine," have been produced in quantity and are in use by our destroyers and submarine chasers. An adequate reserve of ammunition for all classes of guns has been accumulated and is held in storage ready for the use of the fleet.

The committee was supplied with full information of how many attacks of submarines upon armed merchantmen had been warded off, the ships' gun crews using the battery with bravery and skill, and was given the details of certain engagements of special interest.

The arming of merchantmen and the use of other devices, including sailing in convoys, while doing much to keep down our percentage of losses, are not all that can be desired as a check to the submarine menace. The committee was furnished with the names, tonnage, and armament of all vessels under the American flag engaged in trans-Atlantic trade, together with dates and incidents of all encounters with submarines. The record of attacks on our armed merchantmen shows a comparatively small percentage were successful, and that the chances of escape when a submarine is sighted before she has time to fire a torpedo are very high, due to the efficiency of the Navy personnel. The unseen torpedo is responsible for 80 per cent of the sinkings.

BUREAU OF YARDS AND DOCKS.

At the commencement of the war naval docks and yards were wholly inadequate to meet the requirements of the Navy at war strength, but Congress in the last appropriation bill had provided liberally for improvements.

Rear Admiral Frederic R. Harris, chief of the bureau, gave the committee a full report on the activities set in motion to develop the yards and to erect the many structures required for training camps for the increased personnel.

In December last, 496 contracts, involving an expenditure of more than \$96,000,000, had been let for these improvements, 62 of these contracts, carrying about \$26,000,000—mostly for training camps—were made on the cost plus basis, but we found in every case that the bureau had safeguarded the interest of the Government by careful inspection and supervision. This method of contracting, while not the most economical perhaps, was necessary to secure the early completion of the buildings to house and provide hospitals and other accommodations for the recruits. There has been no question of the good faith and integrity with which operations were carried out.

In the construction of the camps the bureau erected 452 buildings under 50 acres of roofing, requiring millions of feet of lumber. An interesting statement of these operations will be found in the hearing of Admiral Harris.

This bureau met in the course of its construction work the usual difficulties with labor, transportation, and priorities, but these situations were well handled and good results with remarkable dispatch were obtained.

Admiral Harris resigned his post as chief of the bureau to go to the Shipping Board in the fall of last year, and pending the appointment and qualification of his successor, the affairs of the bureau were conducted in a most satisfactory manner by Capt. A. L. Parsons, his former senior aide, as acting chief.

AIRCRAFT.

We have examined the naval aircraft situation and find many matters of great interest, but much of our information is not now open for public discussion.

This was the one development of material which no amount of foresight would have enabled the Navy to prepare adequately. The growth of airplanes and hydroplanes has been so rapid that nothing short of actual war conditions would insure a large number of up-to-the-second machines with aviators trained to handle them.

In the earlier stages of its undertaking the naval air service met many discouragements, but the perfection of the Liberty motor and the use of large sums of money in conjunction with the Army to finance manufacturers have, under the direction of the

air service, produced results that, nor promise to meet the requirements of this important branch of the Navy.

The aircraft program is in charge of Capt. Noble E. Irwin, and we commend to the entire committee the careful reading of his hearing, and especially a recent interesting and informing report made by him, now on file with the secretary of the committee.

TARGET PRACTICE.

The statement of Capt. Charles P. Plunkett, Chief of the Division of Target Practice, is of intense interest, and we invite the committee's special attention to it.

We can not publish all that has been accomplished in the way of naval gunfire, battle ranges, percentages of hits, and the results of a comparison of our Navy gunnery with that of other countries. But to our committee, though not technically trained in this matter, the work of this division has been highly satisfactory.

It betrays no secret to say that the gunnery of the Atlantic Fleet prior to the declaration of war was more than satisfactory, but it became necessary to take a large number of ordnance officers and expert gunners from the secondary batteries and turrets of the fleet, in order to provide armed guards for merchant ships and to furnish ordnance officers for the many new vessels coming into commission, so that many men handling the secondary batteries (many used for torpedo defense) were removed and the heavier batteries thus temporarily lost many of their most highly trained gunners. It was necessary to train new personnel to fill these vacancies, and also to provide for the vessels in reserve and the new vessels coming into service. While, primarily, these were questions for the Bureau of Navigation, yet they caused, as Capt. Plunkett explained, the deepest anxiety to the gunnery officers. Nothing but the carefully developed system in the Navy, coupled with devotion of the officers of the fleet and the enthusiasm and intelligence of the enlisted personnel, saved the situation. How well the men sent to the merchant ships have been able to do their work has already answered the defenses they have made to submarine attacks. How well the new men have responded to their training can not be answered until "the day" when the guns of the fleet speak, but we venture to prophesy that the results will be in keeping with the proved traditions of the American Navy.

THE MARINE CORPS.

The Marine Corps, though inherently a part of the Naval Establishment, has its own separate and distinct organization with separate military and administrative staff departments, the latter of which includes a separate supply bureau, the quartermaster's department. It has also its own paymaster's department.

The committee was much impressed with the keen, personal, active interest shown by Gen. George B. Barnett, commander of this corps, together with the officers under him, in everything pertaining to the welfare, comfort, and advancement of the enlisted personnel. This individual interest on the part of the officers is a very large contributing factor, we believe, to the well-known high efficiency and splendid spirit and morale of this corps.

About a year and a half ago Congress began to increase the strength of the Marine Corps, which consisted then of 344 officers and 9,921 enlisted men. By legislation approved August 29, 1916, authority was granted to increase it ultimately to 693 officers and 17,400 enlisted men. Later, after war was declared, a further temporary increase was authorized on May 22, 1917, for the duration of the war, permitting enlistments to a strength of 30,000 enlisted men (exclusive of reservists) and allowing 1,197 officers. About a year after this first legislative authority was granted, the actual strength of the Marine Corps, including reservists and National Naval Volunteers, was 32,288 enlisted men and 1,120 officers. Thus it will be seen that the Marine Corps more than trebled its former strength in officers and enlisted men within this comparatively short period. To-day the Marine Corps numbers 1,230 officers and 36,334 enlisted men.

The actual enlistment was accomplished through the usual methods of recruiting from amongst volunteers from civil life at a time when the Army, Navy, and National Guard organizations were all working in the same field with the same object of filling up their authorized quotas. As new men came into the corps, clothing, equipment, and military stores had to be provided and immediate and adequate methods taken for their health, their instruction, and training. The satisfactory accomplishment of this task required teamwork on the part of officers in command and the military and administrative staff departments. The prewar methods of the Marine Corps in recruiting, training, and administering to the needs of the corps were adapted at once to the situation incident to this increase.

We find that, besides taking care of new appointments in the commissioned grades and the enlistments and the training of this additional force, the Marine Corps has attended without a hitch to its ordinary and regular duties of guarding the navy yards and naval stations, both in and outside of the United States. It has furnished expeditionary forces for duty in France and elsewhere outside the United States and supplied marine detachments for all battleships, cruisers, and other naval vessels placed in commission during existing hostilities.

At the same time it has kept a force of officers and men in Haiti and Santo Domingo to insure continued good order against certain insurrectionary elements amongst their inhabitants. We mention one instance to show the efficiency of the Marine Corps' method of training raw personnel. The rifle is the weapon of the marine. When the Marine Corps was, roughly, 10,000 enlisted men before the war, 6,118 of that force were rated as so efficient in the use of this weapon that they were under the law entitled to an increased pay. To-day the Marine Corps of 36,334 enlisted men has 22,577 men similarly rated. This shows that it has actually increased its prewar percentage of proficient marksmen.

It has been the established policy of the Marine Corps in prewar times to fill its commissioned personnel, as far as possible, by promotions from the ranks, and no appointments are made in commissioned grades direct from civil life. We most heartily approve this policy as rewarding the tried and true amongst the enlisted force.

All of the emergencies the corps has been called upon to meet have been met by the officers and enlisted men in the most expeditious and efficient manner, without either friction or confusion. These results not only vindicate the system of organization but also reflect credit upon those officers who are responsible for the maintenance, direction, and efficiency of the corps.

There are to-day on the firing lines in France no better trained, no braver, no more effective fighting force than our own marines now serving there, and we hope their number may soon be largely increased. Both officers and men are anxious to go. Thoroughly equipped and splendidly trained, as they are, in the arduous methods of modern warfare, we feel that theirs will be a service of results which the Nation will always remember with ever-increasing pride.

OFFICE OF NAVAL OPERATIONS.

Thus far in our report we have considered the operations of what may be termed the administrative side of the department, including the great bureaus. There remains to be considered the more strictly military administration of the Navy.

In 1915 Congress, on the recommendation of the Naval Committee, created the Office of Naval Operations, not defining the duties of the chief, but placing upon him responsibility for the maintenance of the fleet and for the preparation of plans for its use in the war. The Secretary of the Navy appointed Capt. William S. Benson, Chief of Operations and assigned five officers to assist him. Capt. Volney O. Chase was senior aid for personnel and Capt. Josiah McKean for material. The Secretary promulgated a new set of naval regulations, fixing the authority of the Office of Operations and its relations to the bureaus of the department. Congress by subsequent legislation provided for the assignment of a larger number of officers to duty in the Office of Naval Operations, and further, that orders issued by the Chief of Operations in the name of the Secretary should have the same authority as if issued by the Secretary himself. This office has thus become the factor for the coordination of effort between the bureaus, and in military matters of the Navy it has become the dominant authority.

If the Atlantic Fleet was ready for action on April 7, there is no question that its preparedness in both material and personnel was in great measure due to the directing force of the Office of Operations, and further, that plans for the mobilization of the fleet were ready for immediate use. The support given by the department to Vice Admiral Sims goes by way of the Office of Naval Operations. The support of the Atlantic Fleet goes by way of Naval Operations, and in all military matters pertaining to the Navy it is this office which, under the Secretary, gives the final direction.

The pronounced success of this office beyond question is due to the strong personality of its chief, Admiral Benson, the ranking officer of the Navy.

Except the general statement that Vice Admiral Sims has had everything called for as promptly as it could be delivered, our committee has nothing to report about the condition of our overseas fleet. Its splendid work under the able direction of Admiral Sims will be told in detail at some later time.

We have learned by personal observation as well as by inquiry something of the Atlantic Fleet, and we feel we can say that the condition of ships and personnel, all things considered, is more than satisfactory. That this condition exists is due to Admiral Mayo, its commander in chief, and every officer and man under him.

When war came, On April 7, Admiral Mayo is quoted to have said, "I did not give a single solitary order of any kind or description to pass the fleet from a peace to a war. Then came the disintegration of that excellent, but too small, personnel to meet the necessities of expansion."

The task of reconstructing and training it has been difficult, but we learn that officers and men have devoted themselves to this task with patience, endurance, pluck, and skill of the highest order. So well have they succeeded that we feel justified to report, "Sirs, all is well with the fleet."

W. B. OLIVER,
Chairman Subcommittee.

W. W. VENABLE,
ADAM B. LITTLEPAGE,
JAMES C. WILSON,
FRED A. BRITTEN,
JOHN A. PETERS,
FREDERICK C. HICKS,
Committee.

MARCH 11, 1918.

HOUSE COMMITTEE PERSONALLY INVESTIGATED UNITED STATES NAVAL ACTIVITIES IN EUROPE.

In the summer of 1918 the House Naval Affairs Committee, in order to know at first hand more particularly the Navy's contribution overseas and be able to legislate wisely for its fullest efficiency and expansion, visited the naval bases abroad and came in touch with responsible naval officers assigned to duty in European waters. Upon their return, in submitting their report, dated November 12, 1918, the chairman of the committee announced the conclusion of the committee's personal investigation and personal knowledge, obtained after visits and after conferences with Admiral Sims in London, Admiral Wilson in France, and all other naval officers in responsible positions abroad. This is the report they made after visiting all the naval bases in Europe—that is, this subcommittee of the House Naval Affairs Committee, as I say—when they returned in the summer of 1918. Their findings were summed up in these words:

The record made by the United States Navy in this war has not only justified the pride of the American people but has challenged the admiration of the world. Called upon to perform tremendous tasks, some of them seeming almost impossible, in not one instance has it failed.

The full report is as follows—

The CHAIRMAN. That is also in your annual report?

Secretary DANIELS. Yes. I will not read it. It is a very detailed account, telling of going to the various air stations and bases in Italy, Ireland, and France—everywhere the Navy was. That is signed by the chairman of the Naval Affairs Committee, Mr. Padgett.

The report submitted is as follows:

VISIT OF HOUSE NAVAL COMMITTEE TO EUROPEAN NAVAL BASES.

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Washington, D. C., November 12, 1918.

Hon. JOSEPHUS DANIELS,
Secretary of the Navy, Washington, D. C.

DEAR MR. SECRETARY: I deem it appropriate to submit to you a succinct statement of the visit overseas of a subcommittee of the Committee on Naval Affairs of the House of Representatives. The subcommittee consisted of the following members: Lemuel P. Padgett, chairman; Daniel J. Riordan, Walter L. Hensley, John R. Connelly, William B. Oliver, William W. Venable, James C. Wilson, Thomas S. Butler, William J. Browning, John R. Farr, Sydney E. Mudd, John A. Peters, and Frederick C. Hicks.

The committee left Washington on the afternoon of July 13 and boarded the U. S. battleship *Arkansas* July 14, leaving that afternoon, and arrived in the Scapa Flow, in the Orkney Islands, north of Scotland, on the morning of July 25. Capt. William H. G. Bullard, now Admiral Bullard, was in command and the members of the committee were well pleased with the fine conditions and splendid discipline aboard the ship. We found the ship clean and healthy, the men well fed and happy and full of zeal and energy. We had opportunity during the voyage to have a good insight into the life and discipline and association of the officers and men aboard the ship, and we were much gratified at the cordial relations and good discipline maintained.

When we anchored, Capt. Guy Gaunt, of the Royal Navy, came aboard and informed us that he was detailed by the first lord of the Admiralty to receive us and to assure us that we were to be the guests of the Government so long as we were within their domains. Capt. Gaunt remained with the committee until our departure for France, and we wish to acknowledge the generous and distinguished courtesies extended to us on behalf of the British Government during our visit in Scotland, England, and Ireland, and we wish to express our appreciation of the many kindnesses and courtesies as well as the great efficiency of Capt. Gaunt.

We also wish to express our appreciation of the distinguished consideration and courtesies of Sir Fric Geddes, First Lord of the British Admiralty.

At all places we visited in Scotland, England, and Ireland, every opportunity was afforded us to secure the fullest information.

While in London we were received very graciously by their Majesties King George and Queen Mary and Princess Mary; and in Ireland we were received by Gen. Lord French, Governor General of Ireland.

The committee visited Scotland, England, Ireland, France, and Italy. The committee first inspected the mine plant at Inverness, on the North Sea, under command of Admiral Strauss. At Invergordon, about 20 miles distant from Inverness, there was also a large mine plant under the command of Admiral Strauss. Here we had opportunity to get a comprehensive view of the great work that was being accomplished by the United States Navy in planting the mine barrage from the Orkney Islands to the south coast of Norway, a distance of 235 miles, and requiring something like 80,000 mines to close that passage of the North Sea against German submarine activities. We found a splendid spirit of enthusiasm with the officers and men in this work, and were much pleased with the fine progress they were making. It was an undertaking requiring great skill, care, and knowledge; and the way in which it was accomplished reflected credit upon the officers and men of the Navy.

The committee next visited Strathpeffer, where the Navy was establishing and equipping a splendid hospital service under the direction of Drs. Bogart and Smith, to be prepared properly to care for the sick and wounded of the Navy in case of naval engagements in the North Sea or in the waters on the west coast of Scotland, the place being accessible from both places. Next we visited the hospital at Leith, known as Seafield Hospital, near Edinburgh. These two hospitals we found were being fitted up for a capacity of 1,000 to 1,200 beds in case of necessity, with adequate complements of physicians, surgeons, and trained nurses. The committee was gratified to find here as elsewhere a splendid spirit of activity and devotion.

Under reciprocal arrangements between the two Governments these hospitals were caring for the sick and wounded of the navies of Great Britain and the United States.

While at Edinburgh, the committee availed itself of the opportunity of visiting and having a review of the British Grand Fleet, which was then at anchor in the Firth of Forth. It was indeed a grand and magnificent fleet, worthy of its history and its reputation. At that time, the United States Navy had five battleships cooperating with and forming a part of the Grand Fleet under the command of Rear Admiral Hugh Rodman; and it is a pleasure to bear testimony that the American ships in every respect bore themselves proudly in comparison with the English ships.

One of the large enterprises being constructed in Scotland was the oil pipe-line across Scotland from west to east for the conveying of the oil for the use of naval ships and saving many hundreds of miles of steaming to go around Scotland through the sea areas infested with German submarines and thereby avoiding great dangers of the loss of valuable ships and cargoes of oils. This was a great undertaking and was being successfully constructed during our visit.

The committee was delighted to find a splendid spirit of cordial and hearty cooperation between the two navies and, as expressed by Admiral Rodman, it was not two services of two countries, but was one service of two countries, so complete was the cooperation and good feeling between the two navies.

At the same time the committee inspected, at the invitation of the British officers, the British Navy ambulance-train service. Railroad trains were specially fitted

and equipped for the transportation overland from the ship to the hospitals of the sick and wounded, and arranged for the ease and comfort of the sick and wounded, giving evidence of the solicitude and care for the well-being of the officers and men in the naval service.

July 28 the committee arrived in London and that night attended exercises at one of the principal theaters of the town for the special benefit of the enlisted men of the armies and navies of the United States and the allied countries. These exercises were held every Sunday evening and were free, and were participated in by the leading actors and actresses of the various countries and were intended for the entertainment of the enlisted men. It was indeed a splendid sight to see 4,000 or 5,000 young men in uniform enjoying the fine entertainment thus provided for them.

In London it was specially a privilege and a pleasure for the committee to receive the many kind attentions and courtesies of Vice Admiral William S. Sims and the other officers of the United States Navy associated with him in the work in London.

The members of the committee had several conferences with Vice Admiral Sims and the other naval officers relative to conditions, the needs of the service, and the general situation, and the committee was gratified and pleased with the efficiency and the comprehensive and at the same time minute and particular way in which Vice Admiral Sims and the corps of officers associated with him were handling the naval situation.

July 30 the committee visited the English naval base at Dover under the command of Vice Admiral Keyes and were received by the admiral with becoming courtesy and given every opportunity to visit and inspect the large activities at this important English naval base, and the committee was well pleased with the conditions and the activities. Dover was one of the important English naval stations, especially for the smaller craft and was the control base from which operations against the North Sea German submarine activities were conducted. It will be recalled with pleasure that Vice Admiral Keyes rendered very daring and distinguished service in the attacks upon the German bases at Ostend and Zeebrugge, and during our visit the admiral gave us exhibitions of some of the new accomplishments and achievements of the Navy in its war activities, which were of interest and instructive.

July 31 the committee visited the English aviation base, the assembling and testing plant at Hendon, near London, and were afforded every opportunity to witness the aviation activities which are being conducted at this base; also visited another aviation base near Hendon, and at both places made inquiry as to the Liberty motor, and received very satisfactory comments upon its efficiency.

August 1 members of the committee visited Eagle Hut Y. M. C. A. and were delighted with the splendid care and provision made for the comfort and well-being of the enlisted men, and the provision that was being made for their eating and lodging at a very low cost, furnishing clean beds at a cost of 25 cents per night, and a breakfast for 16 cents, or a meal for 25 cents. The members of the committee appreciated the courtesy and kindness of Ambassador Page, and had the pleasure of lunching with him August 1, and in the evening of the same day were the guests at dinner of the House of Commons in the Parliament House, at which the Speaker of the House of Commons presided and many of the distinguished men of the English Government were present.

August 2 members of the committee visited the rehabilitation hospital at Roehampton, near London, and were more than delighted with the magnificent work, even marvelous work, being done by the English Government for the rehabilitation of its wounded men, not only furnishing artificial limbs, which were wonderful in their help to the men, but teaching them all kinds of trades, vocations, and occupations adapted to their particular conditions and fitting them for useful service after the war. The results accomplished in the way of furnishing artificial limbs and also in qualifying the men for useful and self-supporting service in their crippled condition were most gratifying, and the members of the committee would be happy to have the Government of the United States spare no pains to use its best endeavors to care for its wounded and disabled soldiers and sailors to fit and qualify them for the useful and active duties through life. The members of the committee had conferences with Sir Eric Geddes, first lord of the Admiralty, and also with Mr. Lloyd-George, the premier, in which opportunity was afforded for a discussion of the war conditions as related not alone to the Navy but to the general conditions of the war and to some of the important conditions after the war. The committee also visited the English naval station at Harwich, under the command of Col. C. R. Samson, and were shown every courtesy and opportunity for inspecting and witnessing the aviation activities at this station, and Col. Samson also bore hearty commendations of the Liberty motor and made useful suggestions relative to flying machines. The members of the committee visited Queenstown, Ireland, where the United States had established and was operat-

ing a large destroyer base and near by an aviation base, at that time under command of Admiral Bayly, of the English Navy. The members of the committee were courteously received and had the opportunity of visiting and inspecting all of the United States activities with reference to destroyers and other small craft, the aviation activities, and also the large hospital activities established near Queenstown.

The members of the committee were pleased with the efficiency and the activity of the officers and the men of the United States Navy at Queenstown and the hospital and the aviation base near there. These activities in the aggregate were very large and comprehensive and were very important, caring for and protecting very important shipping areas. At night the committee attended an entertainment given by the enlisted men of the United States Navy and attended by a thousand or fifteen hundred enlisted men. The high character of this entertainment was a distinguished credit and bore evidence of the high character of the enlisted personnel of the Navy, and the officers and men of the Navy in the activities at Queenstown and the surrounding places merit commendation.

The committee arrived at Paris August 9 and were received very courteously and extended many kindnesses by Ambassador Sharp and the officers of the United States Navy on duty there. The committee was also very courteously received by Mr. Leygues, minister of marine; Admiral de Bon, chief of operations; Premier Clemenceau; Mr. Pichon, minister for foreign affairs; and President Poincaré.

The members of the committee visited the battle fields of Verdun, Chateau Thierry, and Belleau Wood, and saw the horrible destruction and devastation which had been wrought. We also visited the camp of the marines at Marboche, 15 miles north of Nancy, and St. Genevieve. The headquarters of the Twenty-third United States Infantry, Col. Malone commanding, St. Genevieve, is about a mile and a half from Pont-a-Mousson, which has become famous of late.

I wish to state a fact made known to me by the officers in command, which has not been heretofore generally published, but which is a wonderful testimonial to the heroic courage and dauntless bravery of the marines. In the Battle of Belleau Wood there were about 8,000 marines engaged, and there were 5,720 casualties. Many of these were not serious, but it tells a tale of the horrors which the marines had to face in capturing the place.

The members of the committee did themselves the honor of visiting Gen. Pershing at Chaumont and paying their respects, and had the opportunity of conferring with him relative to war conditions and were pleased to receive his unreserved praise and commendation of the American officers and soldiers. We saw where many villages had been completely destroyed and many others almost totally wrecked.

The committee left for Rome August 16, arriving at noon August 18, and were received with very great courtesy by the Italian Government, having been made guests of the Government from the time we reached the Italian frontier.

The committee visited and paid its respects to Vice Admiral del Bono, minister of marine; Prime Minister Orlando, minister of foreign affairs; and Baron Sonino, all of whom very courteously received and extended to the members of the committee distinguished courtesies.

August 20 the committee visited Venice under the command of Vice Admiral Paolo Marzolo, and were given opportunity to visit and inspect the naval base and to see the naval activities being conducted by the Italians at this point. This base was for small naval craft, and the committee had opportunity to see some of the small craft which the Italians developed, and especially the little boat used by the daring naval officer who attacked and sank one of the Austrian battleships and disabled a second one.

Tuesday night, August 20, King Victor Emanuel entertained the committee at dinner near Padua, near the front, and the next morning the committee witnessed a review by the King and Gen. Diaz and other Italian officers of 20,000 shock troops, and the committee were well pleased with the splendid review and the fine military appearance of the troops. The committee also visited the front at Asiago and near Monte Grappa and had opportunity to visit the trenches at this point, through the courtesy of Gen. Montuori, the general in command of the Italian sector, and Gen. Lord Cavan, in command of the British sector.

We had the pleasure of meeting, and wish to acknowledge the courtesy of, Gen. Treat, in command of the United States Army in Italy, and also to express our appreciation of the courtesies extended to us by the United States naval officers in Italy and to bear testimony to their capable and efficient management and conduct of affairs.

While we did not have opportunity in Italy to see large naval activities and operations, yet the members of the committee feel that in many respects the visit of the committee to Italy was one of the most helpful and beneficial of its many activities.

Returning to Paris, the committee visited and inspected the United States naval activities at Bordeaux, Moutchic, Paulliac, Rochefort, La Rochelle, La Pallice, Fro-

mentine, Paimboeuf, St. Nazaire, Montoir, Le Croisic, L'Orient, Ile Tudy, and Brest. All of these stations located on the west coast of France were visited and inspected by the members of the committee.

In a report of the character intended for this one it is impossible even to attempt to describe in detail the activities of the Army and the Navy. The amount of money expended at these various stations mounts into the hundreds of millions of dollars and the activities involve the employment of thousands upon thousands of men. They represent activities on land and water, under the water, and in the air. They involve transportation of troops, munitions, equipment, food, and clothing from the United States into France of the value of untold millions. The activities of the Navy were to escort and convoy ships transporting troops and all manner of effort and activities in the air, patrolling the seas against German submarines, and safeguarding the arrival and the departure of ships, the construction of bases for the operation and the care of the enormous aviation activities, and also at the various places providing first aid and hospital accommodations for the sick and disabled and the establishment of sanitary conditions, housing facilities, and numerous other activities essential to the proper care of the men, the repair of ships, and the numerous other efforts essential to the successful prosecution of the war.

We can not attempt to go into detail in explanation or elucidation of these varied and stupendous activities. Suffice it to say that we attempted to see and as best we could to inspect and to survey these colossal operations and all we can do is to join in what was said to us in England, France, and Italy, one unbroken expression of wonder and amazement at the magnitude and the rapidity of the achievements and accomplishments of the United States in its war efforts.

The whole work and effort was so great and colossal that while there may have been mistakes and matters subject to criticism in small details they were lost in the magnitude and the success accomplished.

The aviation work of the Navy was under the command of Capt. Cone, and it is simple justice to him to express the conviction of the members of the committee that he was handling the matters in a most admirable and commendable way and deserves commendation for his capable and efficient management of so large an enterprise; and the officers and men associated with and working under him each in his station and the discharge of the duties assigned him we found were active, energetic, and capable and are worthy of commendation, not alone for their zeal but for their successful work. They are too numerous to attempt to mention.

Capt. Jackson was detailed by Vice Admiral Sims to accompany the committee in France and Paymaster Higgins was detailed to accompany the committee in all of its travels, and to both of these officers an expression of appreciation for their courtesies is a pleasure to give.

Rear Admiral Henry B. Wilson, with headquarters at Brest, in charge of naval operations in France, was most considerate and courteous to the members of the committee. We found him to have the matters well in hand and to be a most capable and efficient officer and deserving of commendation for his splendid management.

Vice Admiral William S. Sims, in command of all of the naval activities overseas, we found most capable and efficient, having the confidence and the cordial good wishes of the United States naval officers and of the officers of the British and French navies.

As indicated above, in the stupendous operations of the Navy there may have been, and doubtless were, minor matters of detail which may have been subject to improvement or criticism, but taken as a whole, by and large, the Navy has accomplished a great work and is entitled to approval and commendation.

The chairman and a number of the members of the committee returned upon the transport *George Washington*, under the command of Capt. Pollock, United States Navy, who had successfully made a number of trips across the Atlantic, transporting troops and freight to France.

We were glad to note the same splendid condition of cleanliness of ship, care of men, and discipline aboard the transport under the management and operation of the Navy as we had found upon the regular ships of the Navy.

We wish to express our commendation of the good service and management of Capt. Pollock and the officers of the Navy associated with him upon the ship.

Respectfully submitted.

L. P. PADGETT, *Chairman*.

In an address in the House of Representatives after his return, Chairman Padgett said:

Mr. Speaker, the record made by the United States Navy in this war has not only justified the pride of the American people but has challenged the admiration of the

world. Called upon to perform tremendous tasks, some of them seeming almost impossible, in not one instance has it failed. Whenever any call has come and we asked "When will you be ready?" as did the British admiral when the first destroyers arrived in European waters, the answer has been, "We are ready now." Ready to face any emergency, ready to cope with any problem with that supreme courage and unflinching efficiency that is the tradition of the service.

The readiness of the Navy for action when the war call came was no surprise to us who were familiar with its workings, the plans that had been made, and the measures that had been taken to prepare for any eventuality. We knew that the organization was sound from keel to topmast, that the men at the helm were worthy of every trust. We knew they had been bending their energies to prepare every branch of the Navy for active service.

* * * * *

Recently, in company with 12 other members of the Committee on Naval Affairs, I made a visit overseas, going into Scotland, England, Ireland, France, and Italy, where we had opportunity to visit and make inspection of some of the activities of the English Navy and of many of the activities of the United States Navy abroad.

I do not deem it appropriate or advisable because of war conditions to speak in detail of these activities in the war zone in more specific terms than I have set out herein. However, I do deem it appropriate to say that we found the operations of the United States Navy overseas in a most satisfactory condition. We were especially pleased to learn from our own officers, as well as the officers of the English, French, and Italian Navies, that the cooperation between the several navies was most complete, cordial, and harmonious; indeed, they all spoke of it as the one naval service of the three countries and not as three separate naval services. We were also well pleased with the intelligent and efficient management and with the zeal, energy, and devotion of our officers.

No statement can be made at this time in detail of the magnitude of the naval operations overseas. This much, however, I feel justified in saying: That the magnitude of naval operations overseas, on the water and in the air, reflects credit upon the American people and commands the respect and the admiration of our allies. When the war is over and the full history of the magnitude of our naval operations abroad may be given in detail, it will be a source of pride and honor to the American people; and the fidelity, intelligence, patriotism, and devotion of our naval officers and enlisted men, embracing as a part of the Navy the Marine Corps officers and men, will form a bright part in the world's history and will receive throughout future ages the commendation and plaudits of all who admire courage and intelligence and love patriotism and fidelity.

The marines on land and the Navy men on sea and in the air in the various lines of work and duty to which they have been detailed deserve, and I believe heartily receive, the unanimous commendation of the American people. Well done, faithful officers and men.

GREAT PUBLIC ALARM WHEN GERMAN SUBMARINES APPEARED OFF OUR COAST.

In the early summer of 1918 German submarines appeared off the coasts of the United States and sank 52 vessels. This destruction created consternation among many people. Demands were made upon the Navy Department through the press and otherwise to do two things: (1) Recall destroyers from European waters to protect our own coast which was endangered; and (2) discontinue sending American troops abroad until assured they would not be attacked by German submarines on this side of the Atlantic.

Memory of past fears grows dim after the danger is over. In 1918, when the German submarines appeared off our coast there was real consternation which made itself felt in criticism of the Navy's refusal to recall its destroyers, and of the Army and Navy for continuing to send its troop-laden transports to Europe. The Navy Department was not then, or at any time, influenced by any consideration except its duty to throw the whole weight of its power against the enemy. It was, therefore, unmoved by the criticism, the appeals and the

threats. In Congress itself there was a widespread feeling that the military departments of the Government were pursuing the unwise course, and endangering the lives of American soldiers. The administration gave anxious thought and consideration to its duty.

SENATORS LODGE AND SWANSON INVESTIGATED THE SITUATION.

The Secretary of the Navy then, as always from the beginning of the war, was in close touch with the leading members of the Naval Affairs Committee, and every move and action and policy of the Navy was open to their inspection and knowledge and their counsel and advice eagerly welcomed. When the criticism was at its height, Senator Swanson, chairman of the Senate Naval Affairs Committee, and Senator Lodge, the ranking member of that committee, were invited to the Navy Department for conference. They accepted the invitation. Everything was open to them. On June 6 Senator Lodge, the ranking Republican member of the Naval Affairs Committee, in an address in the Senate, told his fellow Senators that the Navy Department had anticipated the attack, that "they have tried to make every preparation to meet it," and Senator Lodge observed, "I think they have." Senator Lodge added that he had visited the Navy Department and he gave it as his opinion that "after having examined all the arrangements with the utmost care of which I was capable and with the most intense interest and give my word for what it is worth, that in my judgment, the Navy and the Navy Department, the Secretary and Assistant Secretary, and all the officers, the Chief of Staff—referring to Admiral Benson—and every head of bureau has done everything that human foresight could suggest."

PUBLIC CRITICISMS PRESENTED IN THE SENATE.

The address of Senator Lodge was made in answer to a statement by Senator Brandegee based upon an editorial in the Philadelphia Public Ledger, regarding the appearance of submarines off our coast which the Senator caused to be read in the Senate on June 6, 1918. Senator Brandegee prefaced the reading of the editorial with the statement: "Inasmuch as I believe that the questions raised in the article are in the minds of many people in the country to-day, I hope, if not incompatible with the public interest, the Navy Department may issue such information as may be properly given out in relation to the matter." The following is the editorial, which appeared in the Public Ledger June 5, 1918, alluded to by Senator Brandegee:

WHAT WARNINGS, WHAT DEFENSE?

Where was the powerful American submarine scout and destroyer fleet during the last 10 days of May and the first 3 days of June, while the U-boats were giving chase to American merchantmen, shelling, bombing, and torpedoing them? How could the skipper of the *Bristol*, when warned by the captain of the *Cole* that German under-sea raiders were working along the coast, declare as late as Sunday last that to his knowledge the Government had flashed no wireless warning? Were the authorities at Washington incredulous of the stories of pursuits, captures, and sinkings constantly being brought in by captains and crews? And was our vigilant Navy at all cognizant of the presence of the supersubmarines?

Eight days have elapsed since the Public Ledger printed the story of the three-master *Edna*, found off the mouth of Chesapeake Bay with a gaping hole blown below her water line, and two other large schooners in like conditions near by. Immediately afterwards stories were published about a German submarine sighted off the Delaware Capes, giving chase to a steamship that escaped her. A full fortnight ago the captain of the British tanker *Cheyenne* told of his escape from a U-boat attack 180 miles at sea, when he took refuge at the naval base at Lewes, on the Delaware shore. The *Cheyenne's* captain exclaimed at the incredulity of the naval authorities to whom he and his officers told the story. The *Edna* was attacked on May 25; its commander, later made prisoner on the U-boat which sunk his schooner, beheld the capture of the *Winnieconne* and the *Isabel Wiley*. There were the experiences, also, of the crew of the *Hattie L. Dunn*, sunk on May 25, and of the crews of two other schooners and a tanker that had been picked up adrift by an American steamship.

Wireless distress calls were sent out from the ships sunk by U-boats at least 10 days previous to the official Government warnings that closed the Atlantic ports. Why were not these warnings issued earlier. Where were the flotillas of destroyers and chasers, to the building of which the Nation has devoted hundreds of millions of dollars? If they were active, the commanders of American merchant shipping subject to attack seem not to have known about it. The U-boats got their prey. Passenger steamships and freighters appear to have put to sea without restraint and without knowledge given of the presence of the raiders. The failure to take quick and sharp naval measures is mysterious, puzzling, to the lay mind. Is there a proper explanation? Or is this one more case added to the piled-up enormities of bureaucratic stupidity during this war?

The disappearance of the *Cyclops* should have sufficed to get our coast patrol in action.

SENATOR LODGE COMMENDED ACTION OF NAVY DEPARTMENT.

Closing a debate in the Senate, following the reading of the above editorial criticism of the conduct of the war, written without knowledge of how the Navy Department had done and that it was doing everything possible to destroy submarines overseas, and to protect our own coast, Senator Lodge said in part:

The Navy and the Navy Department have taken every precaution that human foresight could suggest, so far as I am able to judge, and I have examined their precautions with such intelligence and care as I could give to the matter.

* * * * *

Mr. President, the Navy and the Navy Department have necessarily anticipated a submarine attack from the very beginning of the war. They have had it constantly on their minds. They have tried to make every preparation to meet it. I think they have. It would be most injurious for me to stand here and follow down the map of the coast and tell the Senate and the public exactly what those preparations are—tell them where the submarine chasers are, where the destroyers are, where the signal stations are, what arrangements they have made for meeting the danger when it came, as they were sure it would come. No human mind can possibly tell when out of the great waste of waters of the Atlantic Ocean a submarine, which travels by night and submerges by day, will appear. As soon as the Navy had any authentic news to indicate the presence of submarines on this coast they acted. They will do everything that can be done. They have the means to do it. That is all that I feel at liberty to say in a general way.

Mr. President, for four years the greatest Navy in the world has been devoting its strength to the destruction of German submarines. They were operating in what are known as the narrow seas, where the commerce of the world, we may say, comes together in a closely restricted area; and even there, with the knowledge for years of the presence of the German submarines, it is not going too far to say that many of these submarines escaped them. They are diminishing now, without assistance. A larger control is being established over the narrow seas, and the work against the submarines at the point of the greatest danger—what we may call the naval front of this war—is succeeding more than any of us dared to hope. It is done by the multiplication of vessels and the multiplication of methods, and there is the great center of the fight.

One or two submarines have appeared suddenly on our coast, as was to be anticipated. In my judgment, we are doing all that can be done. I have taken the pains to go to the department, where everything has been laid before the members of the Naval Affairs Committee who cared to investigate the subject, and I am entirely satisfied that they are doing everything that is possible. But the chase of the submarine is something like searching for the needle in the haystack. You can not tell in which particular wisp of hay it will come to the surface; but that the defense will be effective I have no sort of question.

* * * * *

We have a patrol along the coast, which is composed chiefly of what is known as the Life-Saving Service, or the Coast Guard, as it is now known. We also have an organized system for procuring information from fishermen and others on the coast, extending from Maine to the Gulf. Those sources of information were organized and in operation through the Navy Department at least two years before we entered the war, so I believe that so far as our own coasts are concerned the chances of a base there are almost negligible.

* * * * *

I did not rise to go into the details to describe to you the different naval districts of the country and what has been done in each one of them, but simply to tell you what my opinion is after having examined all the arrangements with the utmost care of which I was capable and with the most intense interest and give my word for what it is worth, that in my judgment the Navy and the Navy Department, the Secretary and Assistant Secretary, and all the officers, the Chief of Staff, and every head of bureau has done everything that human foresight could suggest.

* * * * *

I want the Senate also to remember that when newspaper editorials ask what the Navy is doing, I should like to have them consider why it is that we have sent all the troops we have sent—and we have sent a great many thousands—why it is that they have gone to Europe without the loss of a transport, thank God, as I do. How is it that that has happened? It has happened because of the American Navy, which furnishes the convoys, and no other cause.

I wish I could go on and tell you what the American Navy has been doing in the narrow seas. I can not. The Navy has remained largely silent about its work and its preparation, and it is one of the best things about it, but it has been doing the greatest possible work everywhere. It has not failed in conveying the troops. It has not failed in its work in the Baltic and the Channel and the coast of France and the Mediterranean, and it will not fail here. It will do everything that courage and intelligence and bravery can possibly do.

As stated in the first paragraph, Mr. Chairman, the American Navy in April, 1917, and in every day of every month while war lasted, as Senator Lodge truly said, did "everything that courage and intelligence and bravery can possibly do," and the record, which no amount of carping criticism and misrepresentation can change, will stand to-day, to-morrow, forever.

(At this point, at 3.20 o'clock p. m., the subcommittee adjourned until to-morrow, Saturday, May 15, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

SATURDAY, MAY 15, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235 Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, Pittman, and Trammell.

The CHAIRMAN. The committee will come to order. Secretary Daniels, will you proceed?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Perfectly uninformed and wanton statements have been made that the Navy Department lacked war plans and preparations. You have heard the statements and official records submitted to you by Admiral Badger, chairman of the General Board, and other members of that board, and other able officers how unfounded were any such statements. The truth is that from its creation the General Board has been employed with study of naval warfare and preparing for any conditions of war that might arise. That is their business. And they have not neglected it. The chairman and other members of the General Board have told you how absurd is this notion that any man can make perfect plans, put them in a drawer, and years after when war is declared say: "Look in my drawer B, take out plan A," and then go to sleep while his plans are carried out. A general or admiral who should undertake to wage war by any such methods described in military fiction would invite defeat. Plans are always in the making, changing with changed conditions, and their success depends upon wise direction while war is waging and boldness and initiative by the men actually in the fight on land or sea.

Shortly after the Central Powers began the World War I had several conferences with Admiral Dewey, head of the General Board. I was in close touch with the study that the board was making and remaking in view of the European war. I knew that the board was not only making war plans, but that it was also outlining the "preparations necessary to be made by the bureaus and officers of the department to insure a state of preparedness for war." This study and report were forwarded to me on the 13th of March, 1915.

I approved them, and took the steps to put them in operation. Here is the report of the General Board of March 13, 1915:

GENERAL BOARD, DEPARTMENT OF THE NAVY,
Washington, March 13, 1915.

Confidential.

To: Secretary of the Navy.

Subject: Preparation necessary to be made by the bureaus and offices of the Navy Department to insure a state of preparedness for war.

Inclosures: As enumerated in paragraph 2.

The strategic study of war in the Atlantic Ocean, in which the United States is a belligerent, shows that the full naval force of the United States, together with the necessary merchant auxiliaries, must be named, fitted out, and mobilized within two weeks after the Government decides that war is imminent and a mobilization of the naval force is necessary.

Let me say, by way of parenthesis, that Admiral Mayo has testified to you it was not two weeks before one telegram had mobilized our forces.

In order to accomplish this it is necessary that all preparations possible be systematically made during time of peace and this state of preparedness be constantly maintained.

2. The administrative section of the plan for war in the Atlantic gives generally the work to be inaugurated now and diligently prosecuted by the bureaus of the Navy Department to insure a state of preparedness, and there are forwarded herewith copies of that part of the plan that concerns the activities of the following bureaus and offices, naming all the bureaus of the department: Office of Solicitor, Office of Naval Intelligence, Bureau of Ordnance, Bureau of Construction and Repair, Bureau of Steam Engineering, Bureau of Yards and Docks, Bureau of Medicine and Surgery, Bureau of Supplies and Accounts, Bureau of Navigation, headquarters of Marine Corps.

3. The General Board recommends that each office and bureau be furnished with the part of the plan that pertains to its own duties and directed to comply with the requirements of the plan as fast as may be practicable, and especially to be directed to report to the department as soon as practicable not later than one month from the approval of this letter, and thereafter at the end of each calendar quarter, the progress made in the work of preparation and to comment upon any defects in the plan which make its execution impracticable or that seem cumbersome.

4. It is recommended that copies of these reports be forwarded by the department to the General Board for the purpose of keeping the war plans up to date.

GEORGE DEWEY.

Approved:

JOSEPHUS DANIELS, *Secretary of the Navy.*

The man who won the great Battle of Manila was the man I depended upon chiefly, and the country depended upon him just as securely and surely in 1915 as it did at Manila.

To carry out the preparation recommended by the General Board, I sent a confidential letter to the head of every bureau and office similar to the following, which was sent to the Chief of the Bureau of Ordnance. That letter tells them to carry out the General Board's directions. [Reading:]

NAVY DEPARTMENT,
Washington, May 28, 1915.

Confidential.

To: Bureau of Ordnance.

Subject: Preparation necessary to be made by the bureaus and offices of the department to insure a state of preparedness for war.

Inclosure: Copy of General Board letter, dated March 13, 1915, with inclosure.

1. There is forwarded herewith a copy of General Board letter No. 425 (confidential). The recommendations made in paragraphs 3 and 4 were approved May 28, 1915.

2. The part of the plan that pertains to your bureau is transmitted herewith, and you are directed to comply with the requirements of paragraphs 3 and 4 of the General Board's letter.

3. The reports required should be sent to the department (operations).

JOSEPHUS DANIELS.

Every head of bureau and office to the extent of appropriations made by Congress obeyed these directions, and the Navy, therefore, exercised all the foresight and preparedness that was possible before we entered the war. Any statement to the contrary has been shown to be unfounded by the statements of Admirals Badger, Benson, Mayo, Fletcher, Rodman, Wilson, Niblack, Straus, McKean, and Capt. Pratt, officers in the most responsible positions during the war.

PREPAREDNESS BEFORE THE WORLD WAR—CONTRACT IN PREPARATION AND EXPANSION OF THE NAVY UNDER ROOSEVELT, TAFT, AND WILSON FROM 1901 TO SEPTEMBER 1, 1916.

Several witnesses appearing before your committee, having no first-hand knowledge or little connection with the Navy's important part in the World War, have gone back to the administration of the Navy as far as March 13, 1913, in the vain hope of showing that the Navy in the days before the war failed in preparation because the Secretary of the Navy and the Congress of the United States did not follow their advice in 1913 and 1914. This makes it incumbent upon me, in addition to answering the charges made against the Navy in the World War, to show that between March, 1913, and September, 1916, the three and a half years in which this country was not engaged in war, and before the epoch-making bill of 1916, the Navy was increased in personnel, efficiency, and material more than in any similar peace period or any other period in our history.

Senator TRAMMELL. Are you putting an interpolation there?

Secretary DANIELS. Yes.

Senator TRAMMELL. It was not increased more during that period than it was after we entered the war?

Secretary DANIELS. No; I should have said more than in any similar peace period or any other period in our history except after we entered the World War.

When I became Secretary of the Navy I found that under the administration of President Taft, 1908-1912, the Navy fell back, it being stated by the General Board of the Navy, in response to a request from Representative Butler, of the Naval Affairs Committee, how it was that the German Navy obtained its superiority over ours, with that displacement as a basis, "Considering displacement of ships built, the United States advanced from third to second place in 1907, and dropped to third in 1911," and further, that, "Considering ships built and building, the United States advanced from third to second place in 1909, held this place for a short time only, and dropped to third place again in the same year, 1909."

The basis of ships built and building is a more accurate index to naval strength than the basis of ships built only, for, as the case at point illustrates, a nation can be superior to another, and by building little while the other nation builds much, lose its superiority in a very short time. And on the basis of ships built and building, we

held second place "for only a short time and dropped to third place again in the same year, 1909," four years before the beginning of the Wilson administration.

During President Roosevelt's four years, 1904-8, when the world began to build dreadnaughts, the United States authorized 6 capital ships, the German program authorized 13, including battle cruisers; leaving us a deficiency of 7. In President Taft's first two years we authorized four capital ships, the German program authorized seven, leaving us a deficiency of three. Taking the six years together we authorized 10 capital ships to Germany's 20. This does not show under the administrations of Presidents Roosevelt and Taft any determination to build a Navy superior to Germany's.

In those six years the general board of the Navy had in mind the construction of a navy superior to Germany's, and it recommended the construction of 20 battleships, the same number that Germany authorized. We authorized 10. The general board was certainly not the author of the program adopted. Who was?

The answer is found in part in the annual messages of President Roosevelt to Congress in 1905 and 1906. In his message of December 3, 1906, he recommended this:

I do not ask that we continue to increase our Navy. I ask merely that it be maintained at its present strength * * *. This can be done by a well-settled program of providing for the building each year of at least one first-class battleship equal in size and speed to any that any nation is at the same time building; the armament presumably to consist of as large a number as possible of very heavy guns of one caliber, together with smaller guns to repel torpedo attack; while there should be heavy armor, turbine engines, and in short, every modern device. Of course, from time to time, cruisers, torpedo-boat destroyers, and torpedo boats will have to be built also.

Bear this in mind:

All this, be it remembered, would not increase our Navy, but would merely keep it at its present strength.

In his annual message of December 5, 1905, President Roosevelt had this to say:

It does not seem to me necessary, however, that the Navy should—at least in the immediate future—be increased beyond the present number of units. What is now clearly necessary is to substitute efficient for insufficient units as the latter become worn out or as it becomes apparent that they are useless. Probably the result would be obtained by adding a single battleship to our Navy each year, the superseded or outworn vessel being laid up or broken up as they are thus replaced.

It was in keeping with these recommendations that the United States at the outset of a new era in battleship construction adopted the stand-pat policy by which we were foredoomed to lose our position as second naval power.

It was in accord with President Roosevelt's suggestion that Congress in 1906 and again in 1907 authorized only one battleship, while in 1906 the General Board recommended three, and in 1907 two. It was in accordance with the policy enunciated by Secretary Meyer, under Taft, when in his first report Secretary Meyer said: "Germany is now second among the principal naval powers in warship tonnage built and building. The United States is third;" then, after that statement, recommended, "in order to keep the appropriation for the Navy Department within the economical limit set for

the Government," only two battleships and one repair ship. Hence, no headway was made in the Taft administration toward retrieving the relative strength we had lost under Roosevelt.

In contrasting the small increase under Roosevelt and quoting from his messages, I do not intend to imply that the policy of small construction was inspired wholly or chiefly by him. It was a condition, not a theory that confronted him. In truth, he was doubtless personally in favor of larger naval expansion than the country favored or than Congress would authorize. But he officially made the recommendations quoted above and did not ask for such increase as would have given the United States a navy more powerful than Germany. In view of the big program secured by Wilson in 1916 nobody should conclude that Wilson could have secured a larger program than was secured in 1913 and 1914, or that Roosevelt and Taft, even if they had proposed it, could have secured a large building program in their day. Whatever lack of preparedness this country felt was not due to any one President, to any one party, or to any one Congress. In this country public opinion is the only king, and public opinion did not then demand large appropriations for a big navy, and President Wilson and Congress were in advance of public opinion in 1913 when three dreadnaughts were authorized as against the one dreadnaught authorized in 1912, the last year of Mr. Taft's administration. I remember very well in the summer of 1912 when the naval bill was under consideration in the House. There was a big fight on whether Congress would authorize one or two dreadnaughts. I was a private citizen then, having only the interest of a private citizen in our Navy, but I wrote a letter to every Member of the House of Representatives from North Carolina, my own State, and to some other friends in the House, urging them to support the larger building program. I state this merely to show the difficulty of securing large appropriations and my deep interest in a larger navy before I became Secretary of the Navy.

At that time Congress and the country were not ready to build a big Navy, and this was true of representatives of both political parties. Mr. Cleveland and Mr. Roosevelt favored a larger Navy than the majority of Congressmen of their party. You have been told that lack of large preparation before the war was a grievous fault in the present Secretary of the Navy. If that is true, it is a fault that lies more at the door of preceding Secretaries of the Navy, Presidents before President Wilson, and Congresses before the one of 1913, which made larger provision than any preceding Congress in peace times, and the Congress of 1916, which made larger provision for increasing the Navy than any Congress in the history of the Republic or any Parliament in the history of the world in time of peace. I am presenting here by way of contrast what was done before 1913 and what was done from 1913 to 1916 to point out the comparatively large increase after I became Secretary of the Navy. I grant you, in view of the war needs, that it was too small in all these years before my recommendations of 1915. But the record speaks for itself, and is complete refutation of the criticisms you have heard of securing personnel and ships and munitions before the United States entered the war.

In the last two years of the Taft administration Germany authorized five capital ships and we authorized two. On coming to the pro-

gram of the Wilson administration we find that for the first time in years we authorized a larger program than Germany. In our first two naval bills we provided for five capital ships, against the three contemplated by the Germans in their program at the outbreak of the war. The Wilson administration took steps to secure for the United States that position this country had lost during the Roosevelt and Taft administrations by reason of the policy which prevailed in those years.

As regards battle cruisers, the General Board of the Navy in its first two reports submitted under the Wilson administration did not recommend their construction. It recommended them in 1916 and steps were taken to provide them, and authorization was provided in the bill of 1916 for battle cruisers, the first ever authorized in the United States. It is true that the General Board did recommend two battle cruisers in their recommendations of 1912, but the Secretary of the Navy, Mr. Meyer, did not provide for them in his estimates. Every battle cruiser in the British Navy at the outbreak of the war was authorized before the Wilson administration began, and Great Britain did not authorize or construct a single battle cruiser between March 4, 1913, and the outbreak of the war, while the Wilson administration was in power. In these first three years the Navy became better organized, better officered, better manned, and better supplied with ammunition, and more efficiently and economically administered than ever before in its history. Every branch of the service was improved and the organization of the Navy Department and the Atlantic and other fleets developed to the highest state of efficiency.

In his testimony before the House Naval Affairs Committee, given in 1916, Admiral (then Capt.) J. S. McKean, assistant for material, Office of the Chief of Naval Operations, said:

We have made more real progress in the last two years than in any previous five-year period in my experience in the Navy. I don't think that I have ever known a time when everybody in the service, from top to bottom, was working as hard with their heads and their hands to prepare the fleet for active service.

Admiral Benson, the Chief of Naval Operations, asserted that:

Cooperation between the various bureaus and offices of the department with the Office of the Chief of Naval Operations has been, most cordial and complete, and the practical result has been all that could be desired. A thoughtful consideration of the work that has been accomplished will show that all is being done now that could reasonably be expected from a so-called general staff. In my opinion the organization that exists in the department and that is now in successful operation is accomplishing in a purely American and businesslike manner all that possibly could be expected from the creation of a general staff, and is doing this in a much more satisfactory way.

Admiral George Dewey had this to say:

Our own General Board is, I think, the best general staff in the world.

And Admiral Dewey was right.

Rear Admiral Knight, president of the War College, where high officers of the Navy are instructed in strategy and tactics, testified that:

Secretary Daniels has done more for the War College than any of his predecessors.

It was recognized that the shortage of enlisted men, like the shortage of officers, was attributable to conditions inherited when I came into office. It was presented with a shortage of men, too great to be overcome entirely in any three years of peace, and a prejudice to service in the ranks that had to be corrected before any gains could be made. The Roosevelt and Taft administrations could make no claim to having enough enlisted men to man all vessels of war. The authorized strength of the Navy was far below the number that would have been required, and in the 16 years preceding the Wilson administration none of the administrations in power had made any provision for a reserve with which to fill the gap. The reason the authorized strength was not made sufficient to man properly the vessels was because it had not been possible in years preceding my administration to fill the ranks to the limited strength authorized by Congress. At no time since the Spanish-American War had there been in the Navy enough men to man all vessels for war; and not until the Wilson administration were there enough men to man properly the ships on a peace basis. For years we had built ships without authorizing the men to man them. ✓

When President Roosevelt began his second term the authorized strength of the Navy was 34,500 men. It was inadequate and 3,000 additional men were recommended during his first year. In all, during his second term, 7,500 men were authorized, a number just sufficient to man the new ships authorized during the same period, which required, under the old schedule, since found inadequate, 7,155 men. But it failed to provide a reserve or to cut down the previously existing shortage, which was given as a legacy to the Taft administration.

The ships authorized in the Taft administration require, under the old schedule, 9,886 men, and George von L. Meyer, Secretary during all four years, recommended an increase of only 4,000 men and 1,000 apprentices, which was 4,888 short of the number required to man the ships authorized during his incumbency. Meyer, moreover, failed to provide a single man toward overcoming the accrued shortage of preceding years. Congress, however, authorized an increase of 6,000 men and 1,000 apprentices (4,000 of these having been voted by Congress in the two years preceding the Wilson administration), which was still short over 2,000 the number needed for new ships, and made no provision toward reducing the previous shortages. The Taft administration failed also to establish a reserve. The increase in men actually enlisted was about 3,200.

The Wilson administration became heir to the accumulated shortages of the naval administrations under Roosevelt augmented by the shortages under the Taft administration, and it has been held responsible for the shortcomings by some of the very persons to whom they are due. It must be remembered that, though the authorized strength of the Navy was many thousands short of the number actually required, the Navy was turned over to the Wilson administration about 5,000 men short of the number allowed. There were actually fewer men in the Navy when President Taft and Secretary Meyer left office than there were eight months before, although Congress had in the meantime authorized an increase of 4,000 men, and they had the best season of the year in which to recruit. Under

Secretary Meyer there were 10,360 cases of desertion, and of the experienced men with good records, honorably discharged upon their completion of enlistment, only 52 per cent reenlisted.

This condition of affairs we were obliged to face when we entered office. We were as prompt in remedying it as we were in our effort to remedy the shortage of officers. Vocational and elementary training was established in 1913 in the Navy, and the innovation gradually filled the ranks. It was not possible at once to overcome the prejudice toward the service which the conditions above enumerated must certainly have caused, but enlistment, instead of declining, increased, and in three years 6,331 men were added to the Navy, which is nearly double the increase made in four years under President Taft.

The Navy was short of officers in 1916 because 6, 8, and 10 years previously there were not sufficient midshipmen appointed to the Naval Academy. The United States Navy had depended chiefly upon graduates from the Naval Academy for its officers, the number commissioned from other sources prior to 1914 being so insignificant as to be disregarded, and the first midshipmen to enter the academy under the Wilson administration were not due to graduate until June, 1917. Only time, with the aid of increased midshipmen, could be expected to remedy the condition. Under the Wilson administration the number of midshipmen have been increased, and engineers, aviators, and instructors were provided to give some necessary immediate relief, but as it takes four years to graduate an ensign, any lack of officers in 1916 could not fairly be charged to the Wilson administration.

The Wilson administration could not remedy the shortage of officers immediately, but at once set about to correct the conditions so that at the very earliest possible time the fault would be overcome. Within two months after entering office, and long before any suggestions from outside sources, I recommended, and Congress authorized, an extension of law, allowed by previous administrations to lapse, providing for two midshipmen to each Member of Congress. This permitted about 300 additional midshipmen to enter the academy in the two years following. In 1916 a provision was made that the number of midshipmen shall be in the ratio of three instead of two to each Member of Congress, making 531 additional appointments available at once, or a total of over 800 additional midshipmen, which were provided for in the first three years of our administration. In the previous administrations there had been failure to make increase in the number of midshipmen, and the law which provided for two midshipmen was actually allowed to lapse—that is why there were not sufficient officers in the Navy in 1916.

Turning now to other details of constructive achievement in the Navy, what do we find?

For the first time a continuing policy was adopted for the accumulation of reserve ammunition and other necessary adjuncts for a Navy strong enough and ready to maintain the rights of the Republic.

The Sixty-fourth Congress also appropriated \$3,900,000 for aeronautics and the aviation station, continuing in what was then

regarded as the wise policy of the Sixty-third Congress, which made the first specific appropriation (\$1,000,000) for aeronautics. The appropriation by the Sixty-third Congress permitted the development of naval aeronautics, so that an aviation ship was in the fleet in 1916, and the Aviation Corps had been increased to 18 machines and 150 officers and men, as compared with 4 machines and 4 officers when I became the Secretary of the Navy in March, 1913. The larger appropriations by the Sixty-fourth Congress insured the beginning of the expansion and foundations upon which we could build larger development in war.

The construction of new craft had been prosecuted more rapidly under Wilson than in former years. For example, it took seven years to build the *Virginia*, which was launched in 1906. It took nearly five years to construct the *South Carolina*, which was launched in 1909. At a period when it was more difficult to secure material and labor than ever before in the history of the country the *Pennsylvania*, completed in 1916, was finished in three years and three months, and the *Arizona* in about the same time. Delays in construction of two ships authorized by the Sixty-third Congress were necessitated by elaborate tests essential for securing underwater protection against torpedoes and by the inability to secure bids from private contractors within the sum appropriated. All new ships began then to be equipped with electrical propulsion, a forward step in which the United States leads the navies of the world.

When I became Secretary of the Navy and we undertook the regeneration of the Navy, it was found that there was no mining division and that there were few mines. Contracts were made at once to purchase mines abroad—none could be had in this country—but the European war made it impossible for the contractors to fill the orders. Fortunately the Navy Department had in its contract obtained the right to manufacture mines in this country, and built its own plant. A mining division was organized complete, and for the first time in the history of the American Navy its position in regard to mines and mining became satisfactory and foreshadowed the Navy's construction of the barrage across the North Sea in 1917-18. Moreover, the mines built in this country were built at a cost of between \$175 and \$200 less than the price contracted for their purchase abroad, and a large saving was thus effected. For every 100 mines the Navy had when I became Secretary of the Navy there were 400 mines in 1916—that is, four times as many—and this number was even multiplied.

A like shortage in torpedoes was remedied, and for every 100 torpedoes we had on hand in 1913 there were, in 1916, 158 more ordered or in process of construction, the Navy Department constructing torpedoes at its own plant at a saving of \$1,000 on each torpedo. It had also increased the capacity of torpedo works 433 per cent. Not only were more torpedoes provided for less money but the Navy Department won its suit to prevent a private company from selling its torpedoes to foreign nations, thereby disclosing Navy secrets. In rendering its decision, Judge Cox made this wise declaration, which indorses the policy of the Navy Department under the Wilson administration:

This case illustrates the importance of the United States having a manufactory of its own for the manufacture of torpedoes and other implements of war which

are improved and changed from time to time by the addition of ingenious mechanism, which should clearly be kept secret unless our enemies are to profit equally with ourselves in every improvement which the ingenuity of our Army and Navy Officers may suggest.

As the Navy increased its production of powder the private manufacturer decreased the prices from 80 cents to 53 cents a pound, by direction of Congress after an investigation into its cost. The figures in 1916 showed that the Navy manufactured powder for 34 cents a pound, including all overhead charges, and the reports in 1916 showed we had increased the capacity of the powder factory from 3,000,000 to 6,000,000 pounds per annum, insuring an adequate supply at a minimum cost.

For years the manufacturers of armor plate had been charging the American people excessive prices for armor plate. All three companies manufacturing armor plate offered bids of identically the same figure. Such bids were not accepted and more than \$1,100,000 were saved on three ships by insisting upon competition, but this large saving still left the price far above a reasonable sum. The Sixty-fourth Congress appropriated \$11,000,000 to build an armor plant where armor plate could be manufactured at a less price than was being paid. In addition to cheapening the cost of production, an additional advantage of a Government armor plate plant would be to encourage and give opportunity to its experts to steadily improve the quality of the armor to be used on naval craft. No process is perfect, and the study and experiment will produce superior armor. Secrets of production discovered by Government experts will belong exclusively to the American Navy.

The same Congress also appropriated \$705,611 toward a projectile factory, to cost double that sum, insuring an adequate supply of superior ammunition, not obtainable in 1916, at cost price. By obtaining competition \$1,077,210 was saved on a single contract for projectiles. A Government factory guarantees competition with private manufacturers and the best quality of projectiles.

It was necessary that private shipbuilding yards should increase their facilities to construct the large program that had been authorized. It was the practice before I became Secretary of the Navy to build no ships in any except two navy yards, and their facilities were limited. The Wilson administration had equipped, a provision having been made by the Sixty-fourth Congress to equip, every navy yard to construct naval craft, making it possible to secure more rapid construction of new ships for the Navy in both private and public yards. The fact that the Government can build in its own plants will, in normal times, insure competition in building, and secure prices more reasonable than would be possible if it depended almost entirely upon private shipbuilding yards, as was done in previous years.

At a latter time in the hearing, Mr. Chairman, I will give a statement by yards of the tremendous increase of facilities to build ships. For example, at that time we could not build a submarine in any yard of the Navy, and we were absolutely at the mercy of the two contractors who built submarines. One of the biggest things we have done is to establish at the Portsmouth navy yard facilities for building submarines, where we are building them better and cheaper.

The ordnance experts of the Navy Department designed and completed and placed on latest dreadnaughts the best antiaircraft gun in the world.

In 1916 it had also produced a large caliber gun that would shoot straighter, shoot farther, and hit harder than any gun now in use in any foreign navy. The plan was to place 16-inch guns on the new dreadnaughts.

The unworkable organizations of both the Navy Department and the Atlantic Fleet (in which was centered the chief strength of the American Navy) were supplanted by better ones. Without violating the American ideal of subordinating the military to the civil power, the fleet and the department were organized to effect the most successful operation afloat and ashore.

The grades of admiral and vice admiral were created assuring commensurate rank for responsibility of high command and placing American officers on equality with those of foreign navies holding similar positions.

It was found that the number of chaplains in 1913 was the same as the number authorized in 1841. The Navy had increased from 12,000 men to 51,500, but it had never been thought necessary to increase the number of chaplains in all that 73 years. Upon my recommendation a law was passed allowing 1 chaplain for every 1,250 men in the Navy, providing the spiritual leadership so necessary for an organization comprised largely of boys in their "teens" and young men in their early twenties. A plan was made for a chaplain on every large ship.

Doors heretofore closed were opened to blue jackets. Under new legislation 25 enlisted men, later increased to 100 men, can now be appointed annually to the Naval Academy and qualified to rise from apprentice seamen to admirals. Up to July, 1916, 15 enlisted men have been appointed as assistant paymaster, and 64 to the position of pay clerk, which grade, numbering over 200, will henceforth be exclusively filled by appointment from the ranks. Thirteen enlisted men were promoted to ensign from the ranks during Wilson's three years as compared with three in the previous four years.

Enlisted men were also made eligible to the Aviation Corps and new schools were opened for vocational education. Existing schools were enlarged, this giving opportunity for the best training to ambitious enlisted men who come into the Navy, with a chance to those of superior ability to earn promotion.

While the utmost care was exercised in accepting men for the Navy, causing the rejection of 5 out of every 6 applicants for physical, mental, or moral reasons, the fact that the Navy Department was able to fill and keep the quota of enlistments full, that reenlistments increased from 52 per cent to 85 per cent, that desertions fell off from 216 to less than 90 per month, that the number of prisoners was reduced from 1,800 to 700 under improved penal systems, evidences the increased popularity and efficiency of the service. By providing instruction on every ship and by other means, the naval administration in three years had added over 6,331 men to the enlisted strength of the Navy.

In 1916 the Navy was making all its own mines at a saving of \$145 on each. In smaller economies of various kinds \$2,000,000 had been saved up to the middle of 1916, of which in 1915, \$1,000,000 was reappropriated by Congress for aeronautics and \$800,000 for submarines. The old "misfit" battleships *Mississippi* and *Idaho* were sold

after about six and one-half years of service for \$12,535,275.96, the original cost price of both together, and with \$2,000,000 additional appropriated by Congress, a modern dreadnaught, the *Mississippi*, was added to the Navy.

Perhaps the contrast between the preparation that went steadily on to increase the strength of the Navy in the first three years of Wilson's administration and the preceding years under his predecessors can best be seen in the following table of percentages embracing both material and personnel. These percentages under the Wilson administration embraced the period between March 5, 1913, and September 1, 1916, a period of about three and a half years. I am taking that date, September 1, because it occurred on the 1st day of the month after the passage of the epoch-making bill of August 29, 1916. That was a period of about three and one-half years, while the percentages of the McKinley, Roosevelt, and Taft administrations embrace a full four-year period. I take the period to September 1, 1916, because elsewhere I shall touch upon the even larger expansion made possible by the epoch-making naval bill of August 29, 1916. Here are the table and percentages:

Reserve of munitions, showing the percentages of total orders placed during each administration.

Projectiles:	Per cent.	Mines:	Per cent.
McKinley and Roosevelt.....	5.1	McKinley and Roosevelt.....	
Roosevelt	8.6	Roosevelt, Taft.....	9.7
Taft	22.4	Wilson	90.3
Wilson	63.9	Smokeless powder:	
Torpedoes:		McKinley and Roosevelt.....	17.1
McKinley and Roosevelt.....	.9	Roosevelt.....	20.0
Roosevelt.....	9.4	Taft.....	23.4
Taft.....	18.2	Wilson	39.5
Wilson	71.5		

The CHAIRMAN. Can you, in connection with the table above, give the numbers in each case; the number of the projectiles and of the torpedoes and of the mines, and the amount of smokeless powder, in each case?

Secretary DANIELS. I think so.

Increase in officers, showing by comparison the number of midshipmen appointed at the Naval Academy under the Roosevelt, Taft, and Wilson administrations.

Roosevelt, 4 years.....	978
Taft, 4 years.....	945
Wilson, 3 years.....	1,473

Increase in enlisted men, showing the enlisted personnel of the Navy, as authorized by law.

Roosevelt, authorized 1905.....	37,000
Roosevelt, authorized 1908.....	44,500
Taft, authorized 1909.....	44,500
Taft, authorized 1912.....	51,500
Wilson, authorized 1916.....	79,064

Increase under each administration.

Roosevelt.....	7,500
Taft	7,000
Wilson.....	27,564

All of this, bear in mind, was before September, 1916.

The act of 1916 permits the President, at his discretion, in an emergency, to increase the Navy to 97,000, which would be an increase of 45,500 over the Taft administration.

Enlisted men promoted, showing the number of warrant officers of the Navy appointed ensigns under the Roosevelt, Taft, and Wilson administrations.

Roosevelt, 4 years.....	10
Taft, 4 years.....	3
Wilson, 3½ years.....	17

Those statements are very important and very illuminating, but I do not think it important to read them all. I will insert them in the record.

(The statements referred to are here printed in full in the record as follows:)

Assistant paymasters appointed from among enlisted men, under the Roosevelt, Taft, and Wilson administrations.

Roosevelt, 4 years.....	1
Taft, 4 years.....	3
Wilson, 3½ years.....	15

Prior to the act of March 3, 1915, pay clerks were selected by individual paymaster from any source within or without the Navy. Under the new law, all pay clerks are appointed by the Navy Department from the enlisted personnel.

Increase in aeronautics, showing the expenditures for aeronautic purposes under the Roosevelt, Taft, and Wilson administrations.

Taft, fiscal year 1912.....	\$24,532.79
Taft (8 months) and Wilson (4 months), fiscal year 1913.....	56,032.90
Wilson:	
Fiscal year 1914.....	194,492.46
Fiscal year 1915.....	219,429.20
Fiscal year 1916.....	884,679.28
Fiscal year 1917.....	13,900,000.00

Total expenditures under the Taft and Wilson administrations.

Taft.....	\$61,888.06
Wilson.....	5,217,278.57

Navy appropriations, 1898-1916.

McKinley (4 years):	
1898 (Spanish War year).....	\$144,566,940
1899.....	57,297,569
1900.....	66,949,286
1901.....	83,020,090
McKinley-Roosevelt (4 years):	
1902.....	85,347,345
1903.....	84,993,697
1904.....	103,852,170
1905.....	118,459,897
Roosevelt (4 years):	
1906.....	105,815,342
1907.....	100,893,431
1908.....	130,013,153
1909.....	140,042,555
Taft (4 years):	
1910.....	133,216,693
1911.....	127,818,681
1912.....	129,739,055
1913.....	142,744,167
Total.....	533,519,596

* \$3,500,000 for aviation and \$400,000 for aeronautic station, Pensacola, Fla.

Wilson (3 years) :

1914	\$148, 254, 332
1915	151, 033, 908
1916	313, 300, 095

Total	612, 587, 335
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Total cost of vessels, 1901-1916.

McKinley and Roosevelt	\$107, 006, 642
Roosevelt	83, 192, 938
Taft	127, 747, 113
Willson	655, 289, 806

Secretary DANIELS. Some of the witnesses before this committee have taken up the question of all matters in connection with the Navy since I became Secretary. I am inserting at this place a statement that appeared in my annual report for 1915, showing in brief form the recommendations by the General Board, recommendations by the Secretary of the Navy, and action by Congress for building program from 1903 to and inclusive of 1914, the year in which the World War began.

Recommended by the General Board.	Recommended by the Secretary of the Navy.	Authorized by Congress.
1903.	<i>Secretary Moody.</i>	<i>Act of 1904.</i>
2 battleships, 1 armored cruiser, 3 protected cruisers, 4 scout cruisers, 2 fuel ships, 3 destroyers.	2 hospital ships, 1 battleship, ¹ 1 armored cruiser, ¹ 3 protected cruisers, ¹ 2 to 4 scout cruisers, ¹ 2 submarines, 2 fuelships. ¹	1 battleship, 2 armored cruisers, 3 scout cruisers, 4 submarines, 2 fuel ships.
1904.	<i>Secretary Morton.</i>	<i>Act of 1905.</i>
3 battleships, 6 destroyers, 5 scout cruisers, 6 torpedo boats, 2 fuel ships, 1 gunboat, 2 river gunboats, 2 Philippine gunboats, \$350,000 for submarines.	3 battleships, ² 6 destroyers (if practicable). ²	2 battleships.
1905.	<i>Secretary Bonaparte.</i>	<i>Act of 1906.</i>
3 battleships, 1 gunboat, 2 river gunboats, 3 scout cruisers, 4 destroyers, 4 submarines, 4 torpedo boats, 2 small gunboats.	2 battleships, 1 gunboat, 2 river gunboats, 2 scout cruisers, 4 destroyers, 2 submarines.	1 battleship, 3 destroyers, 8 submarines.
1906.	<i>Secretary Bonaparte.</i>	<i>Act of 1907.</i>
2 battleships, 1 gunboat, 2 river gunboats, 4 destroyers, 2 fuel ships, 4 ships' torpedo boats, 2 scout cruisers, 2 small gunboats, 1 ammunition ship.	1 battleship, and, with hesitation, ² 2 gunboats, 3 river gunboats, 4 destroyers, 2 fuel ships, 4 ships' torpedo boats.	1 battleship, 2 destroyers.
1907.	<i>Secretary Metcalf.</i>	<i>Act of 1908.</i>
4 battleships, 4 scout cruisers, 10 destroyers, 4 submarines, 2 fuel ships, 1 ammunition ship, 1 repair ship, 2 mine-laying ships, conversion of 2 cruisers now on list.	4 battleships, 4 scout cruisers, 10 destroyers, 4 submarines, 4 fuel ships, 1 ammunition ship, 1 repair ship, 2 mine-laying ships, conversion of 2 cruisers now on list.	2 battleships, 10 destroyers, submarines, 2 fuel ships. purchase of 3 new fuel ships.
1908.	<i>Secretary Metcalf.</i>	<i>Act of 1908.</i>
4 battleships, 4 scout cruisers, 10 destroyers, 4 submarines, 3 fuel ships, ammunition ship, 1 repair ship, 2 mine-laying ships, conversion of 2 cruisers now on list.	4 battleships, 4 scout cruisers, 10 destroyers, 4 submarines, 3 fuel ships, 1 ammunition ship, 1 repair ship, 2 mine-laying ships, conversion of 2 cruisers now on list.	2 battleships, 5 destroyers, 4 submarines, 1 fuel ship.
		1 destroyer whose vitals are located below the water line.

¹ Recommended in his hearings before the House Naval Committee. Not in his annual report.² Recommended in his hearings before the House Naval Committee. No specific recommendation in his annual report.

Recommended by the General Board.	Recommended by the Secretary of the Navy.	Authorized by Congress.
1909. 4 battleships, 1 repair ship, 10 destroyers, 4 scout cruisers, 1 ammunition ship, 1 fuel ship (oil tank).	<i>Secretary Meyer.</i> 2 battleships, 1 repair ship.....	<i>Act of 1910.</i> 2 battleships, 2 fuel ships, 4 submarines, 6 destroyers.
1910. 4 battleships, 1 gunboat, 2 river gunboats, 4 fuel ships, 2 tugs, 3 submarine tenders, 16 destroyers, 1 repair ship, 4 scout cruisers, 2 destroyer tenders, 1 mine layer, 2 transports, 1 hospital ship.	<i>Secretary Meyer.</i> 2 battleships, 1 gunboat. 1 river gunboat, 2 submarines, 1 fuel ship, 2 tugs, 1 submarine tender.	<i>Act of 1911.</i> 2 battleships, 1 gunboat, 1 river gunboat, 4 submarines, 2 fuel ships, 2 tugs, 1 submarine tender, 8 destroyers.
1911. 4 battleships, 4 fuel ships, 16 destroyers, 2 destroyer tenders, 5 submarines, 2 submarine tenders, 1 repair ship, 4 scout cruisers, 1 ammunition ship, 1 mine layer, 2 transports.	<i>Secretary Meyer.</i> 2 battleships, 2 fuel ships.....	<i>Act of 1912.</i> 1 battleship, 2 fuel ships, 6 destroyers, 1 destroyer tender, 8 submarines, 1 submarine tender.
1912. 4 battleships, 2 battle cruisers, 2 gunboats, 16 destroyers, 6 submarines, 1 ammunition ship, 2 transports, 1 submarine tender, 1 destroyer tender, 1 supply ship, 1 submarine testing dock.	<i>Secretary Meyer.</i> 3 battleships, 2 battle cruisers, 2 gunboats, 16 destroyers, 6 submarines, 1 fuel ship (conditionally), 1 ammunition ship, 2 transports, 2 tugs, 1 submarine tender, 1 destroyer tender, 1 supply ship, 1 submarine testing dock.	<i>Act of 1913.</i> 1 battleship, 6 destroyers, 4 submarines, 1 transport, 1 supply ship.
1913. 4 battleships, 16 destroyers, 8 submarines, 1 destroyer tender, 1 submarine tender, 2 fuel ships (oilers), 2 gunboats, 1 transport, 1 supply ship, 1 hospital ship.	<i>Secretary Daniels.</i> 3 battleships, 8 destroyers, 3 submarines.	<i>Act of 1914.</i> 3 battleships, 6 destroyers, 8 or more submarines, 1 submarine testing dock.
1914. 4 battleships, 16 destroyers, 3 fleet submarines, 4 scouts, 4 gunboats, 2 oil-fuel ships, 1 destroyer tender, 1 submarine tender, 1 Navy transport, 1 hospital ship, 1 supply ship.	<i>Secretary Daniels.</i> 2 battleships, 6 destroyers, 8 submarines or more (1 to be of seagoing type and 7 or more of coast-defense type), 1 gunboat, 1 oiler.	<i>Act of 1915.</i> 2 battleships, 6 destroyers, 2 seagoing submarines, 10 coast-defense submarines, 1 oil-fuel ship.

Secretary DANIELS. By letter dated October 17, 1903, the General Board of the Navy, organized by the direction of the Secretary of the Navy and constituted of officers of rank and distinction, including the Admiral of the Navy, George Dewey, president, submitted a report expressing its opinion of what the ultimate strength of the United States Navy should be and recommended a program for the completion of the Navy to the strength then believed adequate by 1919. Remember that, 1919. The basis of the fleet recommended was 48 battleships, and lesser units in auxiliaries were recommended in the proportions believed to be best to complete a fighting fleet in the light of the best information obtainable at that time. The influence of new inventions has changed the proportions and characters of some of the lesser units and to that extent has modified in subsequent recommendations the original recommendations of the General Board, but nothing occurred to persuade the board to alter its recommendations as regards the number of battleships.

In its report dated November 17, 1914, which I published as an appendix to my last annual report, the General Board stated that the board—

Believes that these recommendations made from year to year have been both misunderstood and misconstrued in some quarters. The impression prevails

that the General Board has always recommended an annual continuing program of four battleships with accompanying lesser units and auxiliaries. A brief analysis of the recommendations will show the recommendations made were consistent and contemplated the creation of a battleship fleet of 48 vessels by 1919, but did not involve a constant and fixed program of building 4 battleships a year.

It is quite possible that the misunderstanding and misconstruction of the General Board's recommendations may have been due to the fact that its reports and the varying influences which prompted its recommendations were understood by few and seen in their entirety by a still much lesser number. Until the fall of 1913, when for the first time I published in full the recommendations of the General Board, its views were regarded as strictly confidential and withheld even from the committees of Congress which were designated to draft naval legislation. For the last two years reports of the General Board have been published, from which it has been developed that if its recommendations had from the beginning been observed, the construction of two battleships per year would have accomplished its program.

As a matter of fact the program of the General Board contemplated the construction of only two battleships a year, but when the first report was submitted 10 battleships were completed, 14 had already been authorized, and the program of two battleships per year would have by 1915 effected the authorization of 24 more, all of which would have been completed by 1919.

In its report submitted in 1903, recommending new construction to be embodied in the act of 1904, the General Board urged the construction of two battleships, one armored cruiser, three protected cruisers, four scout cruisers, two fuel ships, and three destroyers. The Secretary of the Navy, Mr. Moody, in his report states:

The advice of the General Board and the Board of Construction has been sought and received, and will be submitted to the Members of Congress.

But he made provision in his estimate for the construction of only two hospital ships and two submarines, later recommending before the House Committee on Naval Affairs the construction of one battleship, one armored cruiser, three protected cruisers, two to four scout cruisers, and two fuel ships. Congress with these recommendations before it passed the naval appropriation bill, which provided for the construction of only one battleship, besides one armored cruiser, three scout cruisers, four submarines, and two fuel ships. It will, therefore, be seen that the very first year in which the adoption of a continuing program for the construction of capital ships was recommended by the General Board the Secretary of the Navy recommended the construction of only one vessel of this type, and that Congress authorized but a single battleship.

The following year, 1904, the General Board's program embodied three battleships, six destroyers, five scout cruisers, six torpedo boats, two fuel ships, five gunboats, and \$850,000 for submarines. The recommendation of three battleships was intended to provide the two desired for the regular program, and the third to make up the deficiency of one battleship in the program of the preceding year. Sec-

retary Morton, in his annual report under the caption of "The naval appropriations," states:

The naval estimates for the next fiscal year are large, the largest ever submitted, notwithstanding the fact that they have been cut down from those sent in by the bureaus by more than \$17,000,000—

It does not seem to have been any crime in those days to have cut down estimates by bureau chiefs \$17,000,000—

We have asked for less than the money actually required to continue the naval program as laid down by the General Board, of which Admiral Dewey is the head, notwithstanding all who have studied the question carefully agree that this program should be carried out.

Mr. Morton said that the General Board's program ought to be carried out, but he did not recommend the money, or ask Congress to do it.

The Secretary recommended no new construction in his report, but during his appearance before the House committee he recommended three battleships, and added that, if practicable, six destroyers might also be included. No recommendation was made as to the 18 other vessels besides all the submarines which were recommended by the General Board, and Congress provided for no other vessels than battleships, of which two were authorized. The authorization of two battleships in 1905 still left the Navy in arrears by one battleship of the number recommended by the General Board.

The following year, 1906, the General Board renewed its recommendations for three battleships, two to constitute the number required for the regular program and the third to fill the omission of the 1904 act, and it urged also the construction of four gunboats, three scout cruisers, four destroyers, four submarines, and four torpedo boats. In referring to the estimates he submitted to Congress that year Secretary Bonaparte states in his annual report:

It will be observed on examining them that there is a large reduction in the amount asked for the increase of the Navy, the aggregate of the sums requested for this purpose being somewhat less than what was given for the present fiscal year.

He recommended the authorization of two battleships, two scout cruisers, four destroyers, two submarines, and three gunboats.

And in commenting upon the difference between his recommendations and those submitted by the General Board, Secretary Bonaparte states:

It will be observed, however, that I have assumed the grave responsibility of overruling both boards with regard to the number of battleships and that I have disregarded the advice of the board on construction to make all reductions which economy renders needful in other types. In my judgment, the Navy needs at least four new destroyers,—

That sounds very small in comparison with the 400 built under my administration—

At least two more scouts, and at least one vessel of the *Helena* type. I retain two submarines or submersibles for the sake of experiment and by reason of their comparatively small cost, and the two river gunboats for the last reason and also their ascertained utility.

Then he goes on to say:

A very serious responsibility must rest on any civil officer who, in a matter affecting the national defense, disregards the judgment of those qual-

fied to speak as the authorized representatives of expert opinion. I recognize and accept this responsibility within the limits above set forth. In view, however, of the large reduction made by the department in the estimates of both the General Board and the Board of Construction, I trust that it may meet your views and that of the Congress to authorize promptly the construction of the 13 vessels recommended, as well as the suggested new *Constitution*.

The *Constitution* recommended was to be an armored cruiser. It was proposed that the old frigate *Constitution* be sold and a new vessel, the armored cruiser type, built from the proceeds and named *Constitution* to perpetuate the memory of the old frigate.

The appropriation bill passed by Congress on the receipt of these recommendations provided for the construction of only one battleship, three destroyers, and eight submarines, the scout cruisers and the gunboats being omitted altogether. The provision for only one battleship in this act set the number under construction two behind the number recommended by the General Board.

I may add in this connection that the bill of 1916 provided for a battle cruiser, which I named the *Constitution*, and which is now being built.

As a result of Secretary Bonaparte's decision and the embodiment by Congress in the naval appropriation bill of a proviso stipulating that the battleships should displace 16,000 tons, the *Michigan* and *South Carolina* are about 2,000 tons smaller and 2 or 3 knots slower in speed than the dreadnaught of the same date. On account of these deficiencies these vessels can not be maneuvered with vessels of the dreadnaught type and can not be classified as dreadnaughts.

This was one of the only two incidents in recent years where Congress has sought by legislation to fix the size and type of our battleships in face of battleship development on the part of foreign nations. In his 1906 report Secretary Bonaparte thus expressed his view of the action:

While no practical inconvenience may have resulted from the proviso above mentioned in this particular instance, I deem it my duty to very respectfully submit for the consideration of the Congress the suggestion that the insertion of this proviso has established a precedent of doubtful merit; that its moral effect, both at home and abroad, has not been wholly desirable, and that it appears in forcible contrast to the action of at least one foreign Government in dealing with the same subject matter. It is the universal desire of the construction departments in navies to keep their designs, as nearly as possible, secret; and, so far as I am aware, this is the only instance in which disapproval of this policy has been apparently indicated by the legislative branch of any Government.

The other instance was that in which Congress restricted the size, and, subsequently, the speed and endurance of the *Mississippi* and the *Idaho* so that the vessels were about 3,000 tons smaller than sister ships laid down at the same time. While the vessels, when completed, constituted excellent fighting craft, they had no place in our organization, so that when the opportunity arose to dispose of them by sale to parties who, after their purchase, disposed of them to the Government of Greece, I urged upon Congress the approval of the same and the application of the proceeds toward the construction of a modern vessel, with the result that we disposed of the *Mississippi* and *Idaho* and will obtain in exchange the super-dreadnaught *California*, a vessel of 32,000 tons and enormously

greater effectiveness, which is now under construction at the navy yard, Mare Island.

The CHAIRMAN. Were they sold for sufficient to pay for the new dreadnaught?

Secretary DANIELS. No; we received sufficient to pay for a dreadnaught on the old cost; but the plans for the new dreadnaught made it cost about \$2,000,000 more.

It is regarded unfortunate that Congress in this matter, to the distinct disadvantage of the Navy, should have directed a backward step, and while the situation has been partly remedied by the sale of the *Mississippi* and the *Idaho* and the construction of this fine ship, we should have in the *South Carolina* and *Michigan* vessels of the *Florida* type instead of two ships which are neither dreadnaught nor predreadnaught.

In its report for 1906 the General Board, besides two scout cruisers, four destroyers, four ship's motor boats, two colliers, one ammunition vessel, and five gunboats, and Secretary Bonaparte, notwithstanding the fact that Congress at its last session appropriated for only one battleship, was somewhat reluctant in recommending the construction of more than one in the next program. The view is expressed:

I now think it highly advisable that a consort to the single vessel authorized as a substitute for the last two recommended be authorized at this session, and, if possible, early in the session, so that we may have greater benefit from the increased speed of these larger ships.

But he adds:

With respect to the two battleships, which, with the one already authorized (at the last session), would make three equal in fighting force to any which so far as is known will be possessed by a foreign power at the time of their completion, I have already said that I consider the authorization of one such vessel a consort to the ship already authorized, is clearly demanded by the requirements of reasonable foresight for the national safety under circumstance now existing. I am not prepared to say this so unhesitatingly for the second vessel recommended, but, in view of the unanimous and emphatic advice of all those in the department most competent to speak on such a subject and bearing the responsibility for its proper decision, I deem it my duty to counsel this further addition to our force.

Mr. Bonaparte further recommended five gunboats, four destroyers, four ship's torpedo boats, and two fuel ships. Congress, for the second time in two years, authorized only one battleship, and, with the exception of two destroyers, made no provision for the other types of vessels recommended, both by the General Board and the Secretary of the Navy, and, as a result, the Navy was, within four years after the plan of the General Board was first submitted, three battleships and numerous smaller craft behind the contemplated schedule of construction.

In 1907 and 1908, during the incumbency of Secretary Metcalf, the two reports of the General Board were almost identical. That for 1907 recommended 4 battleships, 4 scout cruisers, 10 destroyers, 4 submarines, 2 fuel ships, 1 ammunition ship, 1 repair ship, 4 ship's motor boats, and the conversion of 2 cruisers into mine layers. In the following year the same recommendation was renewed, except that only 3 fuel ships instead of 4 were recommended, and the ship's motor boats and torpedo boats were omitted. Mr. Metcalf

indorsed the recommendations of the General Board in both instances, and in the two years; that is, by the acts of 1908 and 1909, Congress authorized a total of 4 battleships, 15 destroyers, 12 submarines, 3 fuel ships, and 1 destroyer, whose vitals were to be located below the water line. We were three battleships behind the schedule prescribed by the General Board, and also deficient in the number they recommended in practically every other type of ships.

In his report of 1907, Mr. Metcalf pointed out that while the American Navy at that time enjoyed second place, our position there was largely due to the completion during that year of several heavy ships, but that it could not be retained unless the building of additional ships of the dreadnaught type was authorized.

Upon the inauguration of President Taft, in 1909, Mr. Mayer became Secretary of the Navy. His accession occurred at the time, when, as pointed out by Mr. Metcalf, foreign navies were expanding on a scale unprecedented in modern times. In his first report, dated December 4, 1909, Mr. Mayer, alluding to the construction underway abroad, acknowledges that—

Germany is now second among the principal naval powers in warship tonnage built and building. The United States is third.

In the same report, when recommending increases for the ensuing year, he states:

In order to keep the appropriation for the Navy Department within the economical limit set for the Government, the department recommends only the following new construction: Two battleships; one repair ship.

The General Board at the same time was advocating 4 battleships, 10 destroyers, 4 scouts, 1 repair ship, 1 ammunition ship, and 1 fuel ship, while Congress provided for 2 battleships, 2 fuel ships, 4 submarines, and 6 destroyers. It will be noted that the act of Congress was much more generous in its provision for the Navy than was the Secretary of the Navy in urging construction.

The following year the General Board enlarged somewhat on its recommendation of the preceding year, due chiefly to the failure of the Government to construct the number of vessels it deemed necessary for its program. In 1910 it recommended 4 battleships and 16 destroyers. It is worthy of note that it was not until 1910 that the General Board considered four destroyers the necessary quota for every capital ship. Prior to that time the number varied, but never had exceeded more than two and one-half to one. In addition, three gunboats, four fuel ships, two tugs, five tenders, four scout cruisers, one repair ship, one mine layer, two transports, and one hospital ship were urged. Mr. Meyer, in his recommendations, urged two battleships, one collier, two gunboats, two tugs, two submarines, and one tender. It will be recalled that the preceding year he recommended only two battleships and one repair ship, and in the following year he recommended but two battleships and two fuel ships. At that time Germany was laying down 3 battleships, a battle cruiser, 2 scout cruisers, 12 torpedo boat destroyers, and had appropriated \$3,570,000 for submarines, while the program adopted by the British was even more ambitious.

As already pointed out, Mr. Meyer for the year 1911 recommended but two battleships and two colliers, although in the same report he recognized the great urgency for additional vessels, stating that—

While only two battleships and two colliers are included in the estimates for this year for reasons of economy, the department feels that the deficiencies of the fleet in other types should be borne in mind, and that the following vessels should be provided as soon as practicable without interference with the battleship program of two ships each year.

In recognition of activities abroad he said that:

An examination of the shipbuilding programs of the principal naval powers shows that great activity in warship construction is everywhere manifest at the present time.

For the second time in two years Germany was laying down 3 battleships, a battle cruiser, 2 scout cruisers, 12 destroyers, and authorizing \$3,570,000 for submarines, and the British appropriations were, as during the preceding year, even much greater. It will therefore be noted that in two of the first three years of Mr. Meyer's incumbency he recommended only 4 battleships, 2 fuel ships, and 1 repair ship. In 1911 he added a recommendation for 2 battleships, 2 gunboats, 2 submarines, 1 fuel ship, 1 submarine tender, and 2 tugs; but it will be noted that there was no provision for the battle cruisers, which were at that time being developed by the principal foreign navies, that only 2 submarines were recommended in 3 years, and scout cruisers and destroyers were omitted altogether, so that at a time when other nations were developing vessels of high speed and submarines of great cruising radius, the Secretary of the Navy was recommending no ships faster than 21 knots, and only 2 submarines in 3 years.

For 1911 the general board practically duplicated its recommendations for 1910, and in 1912 they were renewed almost item by item with the exception that 2 battle cruisers were added. The presidential election took place on the 6th of November, and on the 20th Mr. Meyer filed his report. Except that he recommended 3 battleships instead of 4, his recommendations for that year coincided with the recommendations of the General Board, and Congress at that session authorized the construction of 1 battleship, 6 destroyers, 4 submarines, 1 transport, and 1 supply ship.

On December 1, 1913, I filed my first annual report as Secretary of the Navy, and in it I recommended the construction of two battleships, eight destroyers, and three submarines. The General Board advocated a program about the same as it had urged for the five preceding years. Inasmuch as my recommendations differed from those of the General Board, I considered it proper to make public not only the recommendations of the board, but its views concerning the conditions which led to the conclusions embodied in the recommendations. The General Board had every year since 1903 recommended, after careful study, the building program it considered necessary for the proper growth and proportion of ships for the Navy, but it seems that in no instance was the report of the board made public; that frequently its recommendations and always its analyses of the situation had been held as confidential by the Navy Department. It had not been furnished to the committees of Congress on Naval Affairs. Hon. Thomas S. Butler, of Pennsylvania, the oldest

member in point of service, stated during my hearings before the House Committee on Naval Affairs:

Permit me to say, Mr. Secretary, that I have sat on this side of the table in this committee for 18 years, and I have been in the dark for 18 years.

And Hon. Ernest W. Roberts stated during the same discussion:

I recall very well sitting here when Secretary Moody came before us and placed before us the plan adopted by the General Board, which, he stated at that time, was to be regarded as a naval secret. Some years we never did see it. I will be frank to say that in the 14 or 15 years I have been on the committee I have never seen the complete report of the General Board until your report last year and this year. What we have had is the building program; just enumerating the units and classes. That has been given to us a number of times and that is why I am so interested to know how much importance we can attach to this report of the General Board, now that we have it.

While the naval appropriation bill was under consideration by Congress certain parties, who were acting for the Government of Greece, expressed a desire to purchase the battleships *Mississippi* and *Idaho*. I strongly urged upon Congress the passage of legislation which would permit of their sale. This authority was embodied in the naval appropriation bill, and these vessels, which were authorized on March 3, 1903, were sold for the full cost of their construction. Upon my earnest recommendation, Congress further authorized that the proceeds of the sale, \$12,535,275.96, be applied to the construction of a modern dreadnaught. In the same act Congress authorized the construction of 2 dreadnaughts, 6 destroyers, 8 or more submarines, and 1 submarine testing dock, so that in this one year the authorization of two new dreadnaughts and the replacement of the predreadnaughts *Mississippi* and *Idaho* by a later type of ship, 3 modern dreadnaughts, "carrying as heavy armor and as powerful armament as any vessel of their class," were assured to the Navy. This bill was characterized also by the appropriation of a lump sum for the construction of submarines, the only restriction being that at least eight such vessels be built; and the department was thereby enabled to contract for the construction of 7 coast-defense submarines and for a new type of submersible, commonly known as a seagoing or fleet submarine, a vessel of over 1,000 tons, the first of its type to be constructed or authorized by any nation of the world.

In 1914, as in the preceding year, I embodied in my annual report the complete recommendations of the General Board concerning the new construction deemed by the board advisable. Its program was in most respects a duplicate of those which the board had made for the preceding five years, except that a specific appropriation for air service was recommended, and for the first time we find the seagoing submarine mentioned in the report of the General Board. I renewed in my report the recommendations of the preceding year for 2 dreadnaughts and 6 destroyers, and submitted a further recommendation for a gunboat, an oiler, and 8 or more submarines, at least one of which I considered should be of the seagoing type; and I took the liberty to ask that Congress consider fully the conspicuous successes achieved within the preceding months by submarines operating in the European war and to make such additional provision for vessels of this type as the revenues would justify. Congress signalized its appreciation of the needs of the Navy by passing the largest naval appropriation bill recorded in our history to that time; and by wisely

restricting disbursements ashore to the exclusion of all unimportant military works, the largest possible sum was applied to the development of the Navy afloat. This policy enabled the authorization of 2 battleships, 6 destroyers, 1 fuel ship, 16 coast-defense submarines, 2 seagoing submarines, and \$1,000,000 for aircraft.

Thorough consideration of the present and future requirements of the service has led to the recommendation of the five-year program, to which reference is made in my report of this year. The adoption of a continuing program by the executive department of the Government is a distinct innovation. No previous administration has espoused a program looking to meet the needs of the service beyond the current year; and, as the foregoing résumé of recommendations demonstrates so conclusively, the only continuing program which has heretofore existed, that of the General Board, has, almost without exception, been disregarded by both the legislative and executive departments of the Government.

BUILDING PROGRAM AFTER THE WAR.

What shall be the building program of the immediate future for our Navy? That is a pertinent inquiry in view of the general question of preparedness that has been brought out in testimony before your committee. The answer to that question was set forth by me in my hearing before the Committee on Naval Affairs, House of Representatives, March 6, 1920, and is as follows.

Mr. Chairman, I am on a program to make two speeches this afternoon, and my voice is somewhat hoarse, and if it suits you I will put in the record this quotation from that hearing without reading it and wait until Monday morning to continue my statement further.

The CHAIRMAN. Very well.

(The quotation from the hearing referred to is here printed in the record in full, as follows:)

The Naval Committee of the House of Representatives in 1916 enacted a measure which, when the world becomes normal, will be regarded as having, with practical wisdom and vision, set forth the American policy as to naval expansion and world peace. On the day he reviewed the Pacific Fleet at Seattle September 13, 1919, the President of the United States said that when he stood for a plan for general disarmament he was obeying the mandate of the Congress of the United States, and added: "In a very unexpected place, namely, in a naval appropriation bill passed in 1916, it was declared to be the policy of the United States to bring about a general disarmament by common agreement, and the President of the United States was requested to call a conference not later than the close of the then present war for the purpose of constituting and agreeing upon a plan for a permanent court of international justice; and he was authorized, in case such an agreement could be reached, to stop the building program provided for by that naval appropriation bill."

Inasmuch as, after providing for the construction of the largest number of fighting ships ever before authorized in one measure by any country in the world, that bill looked toward an end of competitive naval building, it may be well to recall the mandate to which the President referred. The bill authorized the construction of 10 dreadnaughts, 6 battle cruisers, 10 scout cruisers, 50 destroyers, 9 fleet submarines, 58 coast submarines, 3 fuel ships, 1 repair ship, 1 transport, 1 hospital ship, 2 destroyer tenders, 1 fleet submarine tender, 2 ammunition ships, 2 gunboats, and after authorizing these additions to our Navy, unprecedented in number and cost, the bill contained the following epoch-making provision:

"It is hereby declared to be the policy of the United States to adjust and settle its international disputes through mediation or arbitration to the end that

war may be honorably avoided. It looks with apprehension and disfavor upon a general increase of armament throughout the world, but it realizes that no single nation can disarm, and that without a common agreement upon the subject every considerable power must maintain a relative standing in military strength.

"In view of the premises, the President is authorized and requested to invite at an appropriate time, not later than the close of the war in Europe, all the great Governments of the world to send representatives to a conference which shall be charged with the duty of formulating a plan for a court of arbitration or other tribunal, to which disputed questions between nations shall be referred for adjudication and peaceful settlement and to consider the question of disarmament and submit their recommendation to their respective Governments for approval. The President is hereby authorized to appoint nine citizens of the United States, who, in his judgment, shall be qualified for the mission by eminence in the law and by devotion to the cause of peace, to be representatives of the United States in such a conference. The President shall fix the compensation of said representatives, and such secretaries and other employees as may be needed. Two hundred thousand dollars, or so much thereof as may be necessary, is hereby appropriated and set aside and placed at the disposal of the President to carry into effect the provisions of this paragraph.

"If at any time before the construction authorized by this act shall have been contracted for there shall have been established, with the cooperation of the United States of America, an international tribunal or tribunals competent to secure peaceful determinations of all international disputes, and which shall render unnecessary the maintenance of competitive armaments, then, and in that case such naval expenditures as may be inconsistent with the engagements made in the establishment of such tribunal or tribunals may be suspended when so ordered by the President of the United States."

The three-year program of construction followed a recommendation by the President, approving the plan outlined by the Secretary of the Navy in his annual report of 1915. In his message to Congress, delivered December 7, 1915, President Wilson said:

"The program which will be laid before you by the Secretary of the Navy is similarly conceived. It involves only a shortening of the time within which plans long matured shall be carried out, but it does make definite and explicit a program which has heretofore been only implicit, held in the minds of the committees on naval affairs and disclosed in the debates of the two Houses, but nowhere formulated or formally adopted. It seems to me very clear that it will be to the advantage of the country for the Congress to adopt a comprehensive plan for putting the Navy upon a final footing of strength and efficiency and to press that plan to completion within the next five years. We have always looked to the Navy of the country as our first and chief line of defense; we have always seen it to be our manifest course of prudence to be strong on the seas. Year by year we have been creating a Navy which now ranks very high, indeed, among the navies of the maritime nations. We should now definitely determine how we shall complete what we have begun and how soon.

"The program to be laid before you contemplates the construction within five years of 10 battleships, 6 battle cruisers, 10 scout cruisers, 50 destroyers, 15 fleet submarines, 85 coast submarines, 4 gunboats, 1 hospital ship, 2 ammunition ships, 2 fuel-oil ships, and 1 repair ship. It is proposed that of this number we shall the first year provide for the construction of 2 battleships, 2 battle cruisers, 3 scout cruisers, 15 destroyers, 5 fleet submarines, 25 coast submarines, 2 gunboats, and 1 hospital ship; the second year, 2 battleships, 1 scout cruiser, 10 destroyers, 4 fleet submarines, 15 coast submarines, 1 gunboat, and 1 fuel-oil ship; the third year, 2 battleships, 1 battle cruiser, 2 scout cruisers, 5 destroyers, 2 fleet submarines, and 15 coast submarines; the fourth year, 2 battleships, 2 battle cruisers, 2 scout cruisers, 10 destroyers, 2 fleet submarines, 15 coast submarines, 1 ammunition ship, and 1 fuel-oil ship; and the fifth year, 2 battleships, 1 battle cruiser, 2 scout cruisers, 10 destroyers, 2 fleet submarines, 15 coast submarines, 1 gunboat, 1 ammunition ship, and 1 repair ship.

"The Secretary of the Navy is asking also for the immediate addition to the personnel of the Navy of 7,500 sailors, 2,500 apprentice seamen, and 1,500 marines. This increase would be sufficient to care for the ships which are to be completed within the fiscal year 1917, and also for the number of men

which must be put in training to man the ships which will be completed early in 1918. It is also necessary that the number of midshipmen at the Naval Academy at Annapolis should be increased by at least 300 in order that the force of officers should be most rapidly added to; and authority is asked to appoint, for engineering duties only, approved graduates of engineering colleges, and for service in the Aviation Corps a certain number of men taken from civil life.

"If this full program should be carried out we should have built or building in 1921, according to the estimates of survival and standards of classification followed by the general board of the department, an effective Navy consisting of 27 battleships of the first line, 6 battle cruisers, 25 battleships of the second line, 10 armored cruisers, 13 scout cruisers, 5 first-class cruisers, 10 third-class cruisers, 108 destroyers, 18 fleet submarine, 157 coast submarines, 6 monitors, 20 gunboats, 4 supply ships, 15 fuel ships, 4 transports, 3 tenders to torpedo vessels, 8 vessels of special types, and 2 ammunition ships. This would be a Navy fitted to our needs and worthy of our traditions."

In December, 1918, in order to insure a Navy adequate for the United States, I recommended another three-year program, and in his message to Congress December 2, the President said:

"I take it for granted that the Congress will carry out the naval program which was undertaken before we entered the war. The Secretary of the Navy has submitted to your committees for authorization that part of the program which covers the building plans of the next three years. These plans have been prepared along the lines and in accordance with the policy which the Congress established, not under the exceptional conditions of the war, but with the intention of adhering to a definite method of development for the Navy. I earnestly recommend the uninterrupted pursuit of that policy. It would clearly be unwise for us to attempt to adjust our program to future world policy as yet undetermined."

In the hearings before the Naval Affairs Committee of December 30, 1918, advocating the future naval policy for the United States, I said:

"It is our duty to consider the obligations imposed upon America if the peace conference now occupied at Versailles upon the greatest task which ever engaged the attention of a human gathering during the whole course of the world's history completes its work constructively and satisfactorily, as we all hope it will do. Let us assume that this conference will give birth to some plan looking toward a concert of the nations for the maintenance of peace, whether it be a league of nations, according to the present acceptance of the meaning of that term, or what not. It will be some manner of body to which differing nations will perforce submit their differences for adjudication and which will be sufficiently powerful to induce acceptance of its decisions when once they shall be made.

"The experience of poor and imperfect humanity has very fully taught the lesson that power for the enforcement of judicial decisions sometimes needs to be considerable; and back of that must lie a tremendous police power of prevention if judicial decisions are to be made as infrequent as possible, indeed, if society is to exist at all. Arbitration which had behind it no power capable of compelling the disputants to accept the decisions of the arbitrators would have no value whatsoever in cases of serious emergency.

"It seems self-evident that a world police must be established to achieve this purpose, no matter what the constitution or plan of operation of the peace league may be. That world police will be very largely naval, for only a police equipped with and trained to ships could be world mobile, and a world police which could not move speedily and powerfully about the world would be as valueless and impotent as a city police incapable of traversing the city's streets.

"This being true, it becomes obvious that if the United States is to participate in such a movement, it must participate upon a scale commensurate with its wealth, intelligence, great population, and scientific attainments. Any lesser participation would be shirking of its duty. A contribution less in cost, strength, or any detail of perfection than that of any other member of the league would be undignified and unworthy of a nation which by Providence has been as generously endowed as the United States.

"I am quite certain that it would be improper for America even to consider the proposition of contributing to the world police a number of units smaller than that contributed by the greatest other power. It seems to me

that this is obviously the American duty, and that the other nations of the world would be justified in regarding us as shirkers if we failed to accept the burden of it cheerfully and turn to the performance of it with an unexampled earnestness and high efficiency. It would be contrary to all our traditions and all our ideals to assume that in the planning of a new and mighty navy America could be animated either by fear or the intention of aggression.

"What if, unhappily, the peace conference should fail to come to an agreement upon such a plan? Suppose the powers do not now agree to curtail armament, then it is entirely obvious to all that the United States, if she is to realize her destiny as a leader of the democratic impulse, if she is to play her proper part (as she, hand in hand with her incomparable Allies, has played it in this war) in the protection of small nations, the preservation of the freedom of the seas for them and for the world at large, must have a Navy that will be as powerful as that of any nation in the world.

"It is my firm conviction that if the conference at Versailles does not result in a general agreement to put an end to competitive naval building on the part of all nations, then the United States must bend her will and bend her energies, must give her men and give her money to the task of the creation of incomparably the greatest Navy in the world. She has no designs upon the territory or the trade of any other nation or group of nations. But she is pledged to the support of the Monroe doctrine; she is pledged to the protection of the weak wherever they may suffer threats; she is incomparably rich, incomparably strong in natural resources; if need be she must be incomparably strong in defense against aggressors and in offense against evildoers.

"America is committed to the promise of entering into a general and genuine plan for the reduction of armaments. If the outcome of the peace conference shall be that all nations will concur in this idea, then the United States will gladly join them in the worthy plan. For three years we have been committed to such a program in such circumstances. But if such an agreement can not be shortly arranged, then we, here in America, must accept the burden which the failure automatically will thrust upon us and meet it by adding such units to our Navy as will secure our own safety and aid powerfully in protecting the peace of the world."

At a later hearing before your committee on May 27, 1919, after exchanging views with leading members of the committee, in answer to an inquiry as to the new three-year program, I stated that I would not ask its incorporation in the 1920 bill, and said:

"I am not asking for its retention because of my faith in the League of Nations, by which we shall come to what this committee foreshadowed in its action three years ago—the first peace league legislation in history. This Naval Affairs Committee blazed the road upon which we are now traveling."

Your chairman said: "I am in harmony with you on that. It is only my personal view, however."

I pointed out that due to the imperative necessity of building destroyers and other small craft to meet war needs we had not been able to make the progress in the construction of capital ships which would otherwise have been made, and stated:

"Therefore I now find 'that with the extraordinary expenses during the coming fiscal year we could not begin the construction of any capital ships except those authorized in 1916.' There was some suggestion that work on those already authorized be deferred, but I took the ground that under any circumstances all those ships would be needed to give our Navy sufficient modern powerful and fast ships to enable us to have an adequate mobile police force of the sea, and I stated what was the position of the Navy Department then and now:

"We have only two courses to pursue: We must have a league of nations by which every nation will help preserve the peace of the world without competitive navy building, or we must have incomparably the biggest navy in the world. There is no middle ground."

Your committee made no provision for a new building program in the last Navy bill, and the paramount question as to future naval expansion revolves around what new construction will be authorized in this year's bill. In my annual report I stated that specific recommendation would be reserved until such time as I should appear before your committee.

I had hoped, gentlemen, to appear before you to-day with a final recommendation as to a building program for the Navy, but as the peace treaty has not

yet been acted upon by the Senate there are uncertainties in the situation. If the covenant had been ratified, our duty would have been made plain. With the league in operation, composed at first of all the nations allied or associated in the World War and with provision for the admittance of all other nations opposed to conquest and militarism, it would not be necessary to impose on the taxpayers of America, in view of present burdens, the money necessary for building more capital ships by appropriations in this bill. I have had presented to me, and Admiral Badger, in his hearing, has presented to you the building program for the next fiscal year proposed by the General Board, which is as follows:

Battleships.....	2
Battle cruisers.....	1
Scout cruisers.....	10
Flotilla leaders.....	5
Submarine (fleet).....	6
Airplane carriers.....	2
Aircraft tenders.....	2
Destroyer tender.....	1
Submarine tender.....	1

You have had before you the members of the General Board, who have given you their views as to the necessity of continuing our building program and making our Navy, step by step, of the proper size, and their views are entitled to the most serious consideration. I am entirely in harmony with the statements made before this committee by Admiral Badger as to the military need of the General Board's program if the United States elects to remain out of the League of Nations; but, under conditions as they exist to-day, I am not recommending additional dreadnaughts, battle cruisers, and scout cruisers in the pending bill, though these ships are the backbone of naval efficiency.

Had the peace treaty been settled upon, with the possibility of armaments being curtailed and regulated as originally suggested by your committee in 1916, I would have submitted a program to-day which would have looked only to rounding out the Navy along the lines found necessary by our experience in the late World War.

Two battleships authorized prior to 1916 are now nearly completed, and we are building, under the three-year program of 1916, 10 battleships more powerful than any foreign battleships afloat and 6 battle cruisers superior to any foreign vessels of their class. There are also 10 scout cruisers under construction. Our new construction, however, as well as our existing forces, are deficient in several types of vessels which during the World War were found essential to effective fleet operations. These types are, in order of importance, the airplane carrier, light scout and light cruisers, the mine-laying light cruiser, the flotilla leader, the fleet submarine and destroyer, and submarine tenders. To properly round out our fleet, these types are necessary. The deficiencies along these lines in our authorized forces came about as follows:

Previous to 1916 the United States naval-building policy was governed by the acknowledged supremacy of the battleship. We believed that it was essential to give the Navy adequate battleship strength first. In 1916 we undertook for the first time a program which was fairly balanced.

While the three-year building program of 1916 still gave the first place to battleships, other types of vessels were not ignored. The inclusion in that program of 6 battle cruisers and 10 scout cruisers was due to the growing importance placed upon information in the conduct of naval warfare and a recognition of the fact that the speed of modern fleets was becoming such that merchant ships could no longer be counted upon to perform the essential scouting operations. Destroyers and submarines were included in our building program, and likewise auxiliaries required to supply this fleet.

With the World War came the wonderful development of the submarine and of aircraft, but before we were able to apply the experience of this development to our naval forces we, too, were plunged into the war. The nature of the naval operations of the war was such that the principal offensive action which could be taken by the United States Navy was that against enemy submarines. In order to render the greatest possible and immediate service in the war, our major-ship program was largely suspended, and virtually the entire building energy available for naval vessels was expended in the construction of destroyers, submarines, submarine chasers, and other antisubmarine craft. We

have constructed since 1916, 176 destroyers, 63 submarines, and hundreds of other ships of small type, including 441 submarine chasers.

The activities of the United States Naval Air Service were restricted to those in which our aircraft could be most effectively used against the enemy, namely, operations against enemy submarines and bombing raids by aircraft operating from shore bases.

At present the United States has only one airplane carrier to be converted, three light cruisers which are old, no flotilla leaders, nine fleet submarines authorized.

Great Britain, which had a better balanced fleet before the war and continued building during the war on a more nearly balanced scale, while we specialized on destroyers and other antisubmarine craft, has the following:

Airplane carriers.....	6
Light cruisers.....	76
Flotilla leaders.....	30
Fleet submarines.....	21

Thus, as a result of the changes in naval warfare due to the development of the submarine and aviation, and to the sacrifice the United States Navy made to win the war, our fleet is weak in the types which the World War proved were essential to fleet efficiency.

The question for you to decide is whether the United States in future building shall undertake simply to round out its Navy by building units of types in which we are now short or shall embark on further expansion in addition. In the unsettled condition of the world to-day our Navy must be prepared for any emergency. It was my purpose, due to economic conditions and on the supposition that the peace treaty would, by this time, have been ratified, to recommend the following moderate building program for the year 1920-21, to round out our fleet, viz:

Light cruisers.....	10
Mine-laying light cruisers.....	6
Flotilla leaders.....	10
Fleet submarines.....	6
Airplane carriers.....	4
Destroyer tender.....	1
Submarine tender.....	1

And I intended to await future events before recommending further increase in our major ship construction. However, in case the peace treaty is not ratified at the present session of Congress, I am constrained to recommend the authorization of the following building program, viz:

Battleships.....	2
Battle cruiser.....	1
Scout cruisers.....	6
Light cruisers.....	20
Mine-laying light cruisers.....	8
Flotilla leaders.....	20
Fleet submarines.....	6
Aeroplane carriers.....	4
Destroyer tender.....	1
Submarine tender.....	1

If it shall turn out that the United States definitely decides not to become a party to the proposed League of Nations, I shall feel it my imperative duty to renew my recommendation of last year for the authorization by this Congress of another three-year program, with such changes as to types as the lessons which the World War has taught us in the construction of fighting ships.

(At 11.05 o'clock a. m. the subcommittee adjourned until Monday, May 17, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

MONDAY, MAY 17, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman) and Keyes.

The CHAIRMAN. The committee will come to order. Will you proceed, Mr. Secretary?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Mr. Chairman and gentlemen, it can not have escaped members of this committee that running like a thread through most of the evidence has been an advocacy of a General Staff for the conduct of the American Navy, and the elimination of civilian control. Some of the officers have frankly avowed their advocacy of Prussianizing the Navy. Some of them have been loud in declaring they would not advocate doing away with civilian authority, "but," and that "but" in nearly every case, stripped of verbiage, looked to substituting military for civilian authority. There is nothing new about such advocacy. Secretary Chandler had to meet it when it raised its un-American head during his term as Secretary of the Navy and he crushed it. Other Secretaries have met it. Now and again it has been presented, generally camouflaged as now, but the snake had only crawled into its hole, ready to appear again in another shape when it was deemed ripe for presentation.

I shall never forget the only piece of advice Secretary Meyer gave me when I succeeded him as Secretary of the Navy. He had introduced me to his aids, explained their position and lack of final power, and afterwards declared that there were officers of the Navy who wished less power for the Secretary and more for themselves. "Power lies there," he said, pointing to the Secretary's desk, "and it should remain here." Not many months later, when Admiral Fiske and other disciples of the Von Tirpitz system of naval control, sought to organize the American Navy on the Prussian plan, I understood more fully Secretary Meyer's weighty words.

Let me state to you gentlemen and to all Congress and to the American people as plainly as I can what is at bottom behind all this blatant hue and cry you have been deluged with. Of course,

the original charge showed hostility to certain officers and desire to damage the ranking officers who directed operations during the war, and the evidence has disclosed a desire to misrepresent the actions of the Secretary of the Navy because he was not a rubber-stamp Secretary. But deeper than egotism and prejudice, if you have not already seen the cloven foot, you will find a deep-seated determination to organize the Navy Department upon the approved Prussian plan by giving all power to the military and taking all away from the civilian. When he appeared before the House Naval Affairs Committee in 1916, Admiral Sims was discussing target practice and so-called defects in turrets, when he was asked this question :

Could we have had those defects in the design of turrets under a general staff?

And his reply was :

No, sir ; we could not have had them.

There are not a few officers of ability and deservedly high standing in the Navy, aside from the critics, who wish to substitute military for civilian authority in the administration of the Navy. They believe that an admiral should absolutely dictate the whole naval policy, but few of them are ready to advocate the policy which you have found in the testimony of some of your witnesses. They fail to understand the genius of American administration and incorrectly suppose that the plan of government on a battleship would work in the Navy Department. I have no quarrel with any officer who believes the Prussian system is better than the American system or who favors a general staff or some other centralized military, rather than civilian, authority in the Navy Department. They have their right, and it is for Congress to adopt the best policy. But, gentlemen, most of those who advocate this radical departure seek to camouflage their Prussian ideas. They say they do favor a civilian Secretary and have not thought of a naval officer as Secretary. What they desire, gentlemen, is a civilian rubber-stamp Secretary with no power except to draw his salary and "sign here" when the military chieftains tell him where to affix his name.

If this country wishes to reverse its national policy of civilian authority in the Navy, let it do so with its eyes open and with full knowledge of what the radical departure from Americanism means. Personally it concerns me no more than it concerns over 100,000,000 other American citizens.

I can see an argument in favor of military control. A Navy officer, trained in the naval profession, as Secretary of the Navy would be better qualified to navigate a ship and to pass on technical matters than any civilian. If we are to change the American policy of substituting military for civilian rule, then we should do so directly and clearly and without pretense. If we are to depart from our national policy we should provide that the Secretary of the Navy shall be an admiral in the Navy and that no civilian shall be eligible for that position.

You will find, if you have not already observed it, that the often exposed and defeated plan of a dummy as Secretary of the Navy is what will be desired by the most ardent advocates of the so-called "military responsibility," and that no civilian Secretary of the Navy will be satisfactory to that class unless he is willing to be a figurehead.

I have had the honor to hold this great office more than seven years, a longer period than any of my predecessor except Gideon Welles. It has been seven perfectly happy years, with just enough criticism to make the job really interesting. I have seen the Navy grow from 43,000 men to more than half a million; from 3,161 officers to 32,000; from 326 ships to 1,000, with a total of over 2,000 manned and operated by the Navy during the war; with appropriations for a single year from \$142,000,000 to over \$1,900,000,000. I have been honored to direct the policies of this great Navy in the World War, and to have the world applaud its large contribution. And yet there has never been a time, except in the throes of war, when those who wished a Von Tirpitz and military control have not been ready to discount the great work of the department and the Navy in order to try to induce Congress to enact legislation which would take the administration of the Navy out of civilian hands and put it in military hands. Their advocacy of the change is not personal, even by those who have found their chief occupation in criticizing the policies for which I stand. They wish a Germanized Navy. Before the war some of them openly avowed that the German military method was their model. Since the failure of the German plan they do not call their demand for "full military responsibility" by its right name, but they continue to criticize minor mistakes in order to try to secure a Prussianized naval administration.

It would be a mistake, however, to suppose that all who advocate some change belong to that class. There are, of course, differences of opinion as to the best method of administration—honest differences, entitled to every consideration and study. I have never yet known a perfect organization. Suggestions for improvement along American lines are, of course, helpful when they are consistent with American ideals. I see no perfection in any particular organization. I am inclined to hold, with Pope:

For forms of government let fools contend;
Whate'er is best administered is best.

In no English-speaking nation is a military officer in authority in the direction of naval policy or naval administration. Some of those who advocate a change in our organization have told you that in Great Britain the first sea lord is the real authority and not the first lord of the Admiralty, the head of the British Navy, whose office and responsibility correspond with the American Secretary of the Navy. It may interest you and contribute to throw light upon the question of naval administration to give you the powers of the first lord of the Admiralty in Great Britain. The following extracts are from Naval Administration, by Admiral Sir R. Vesey Hamilton, G. C. B., late first sea lord of the Admiralty (British Parliamentary Paper, Dardanelles commission, 1917):

Under the order in council of March 19, 1872, the first lord is made "responsible to Your Majesty and to Parliament for all the business of the Admiralty," and the naval lords are made severally responsible to the first lord for the administration of the business assigned to them. It was in the order in council of January 14, 1869, that this sole responsibility—

I call your attention particularly to that fact, gentlemen—

of the first lord was first officially laid down, but the evidence given by the naval and civil lords before the select committee of the House of Commons in 1861

clearly shows that this was but a formal sanction to a practice that had existed long before. * * *

The first lord of the Admiralty: The responsible head of the naval administration is the cabinet minister known as the first lord of the Admiralty, who, as a member of the Government, is the channel through which the navy receives its political direction, and, through successive first lords, is shaped in character and strength in accordance with the imperial policy * * * being responsible—

This is the first lord, now—

for all the business of the Admiralty, he possesses the power both of initiative and veto. By his supreme direction our maritime affairs are conducted. He is the representative of the navy in Parliament. To him the country looks for its readiness and sufficiency. In practice, as a civilian, the first lord depends very largely upon the other lords, * * * but inasmuch as the first lord has selected or accepted his advisers as the most able of professional men, he is very largely guided by their views. * * *

In consultative duties, all questions brought before the board are thoroughly considered and thrashed out—

And I beg to call attention to this following sentence—

but the first lord has necessarily the final decision—

Exactly as it is in America and in every other English-speaking nation in the world—

His responsibility being that of a cabinet minister * * *

No paper is laid before the board except with the first lord's approval—

In Great Britain none of the other lords can even suggest a policy without the approval of their secretary of the navy—

and a schedule is prepared beforehand of the matters to be brought up at the board for the information of the members—

Now, the difference between the duties and policies outlined here is that in our Navy we have a meeting every Thursday at which the Secretary of the Navy, the Assistant Secretary of the Navy, the Chief of Operations, and all the bureau chiefs meet in the same capacity as if it were a cabinet, and any member of that council is not only privileged but is requested to bring up any matter connected with naval preparation, naval organization, naval administration, and to discuss freely and fully. Their initiative is invited, and concrete policies and problems are discussed at this Thursday meeting every week; and during the war we had these meetings oftener, and if the meeting was not officially called oftener the Secretary of the Navy and the Chief of Operations and the bureau chiefs were in consultation every day and every night on some phase of the war, so that always the Secretary had the advice and consultation of the most trained and expert men in the Navy.

This article proceeds:

What is clear is that the first lord being responsible, the other lords are responsible to him—

That is, to the first lord of the Admiralty—the secretary of the navy—

for the advice they give; and Sir Evan MacGregor, permanent secretary, has expressed the view that their responsibility ends when they have given their opinion at the board to the first lord. * * *

The functions of the first sea lord are defined, *inter alia*, in the following terms:

“Preparation for war. All large questions of naval policy and maritime warfare—to advise.”

The other members of the board are charged with various departmental duties.

Neither the first lord nor the first sea lord are under any legal obligations to consult either the board collectively or any individual members of the board, but the Official Procedure and Rules, page 51, contains the following:

"It is to be understood that in any matter of great importance the first sea lord is always to be consulted"—

Now, the program here is that the Chief of Staff or some Von Tirpitz is to go ahead and out of his own head to operate the Navy; the Secretary is to be a rubber stamp, and his responsibility is to be to Congress and to the people, and not to the Secretary.

In Great Britain it is to be understood that in any matter of great importance, the first sea lord is always to be consulted—that is, the secretary of the navy—

by the other sea lords, the civil lord, the additional civil lord, and the parliamentary and permanent secretaries; but each member of the board and the parliamentary and permanent secretaries will communicate direct with the first lord. * * *

One of the wisest and ablest and most scholarly men who has occupied the portfolio of Secretary of the Navy was Hon. John D. Long, formerly governor of Massachusetts, who became Secretary in President McKinley's Cabinet. It was under his able administration that our Navy won increased fame in the naval victories of the Spanish-American War. After his retirement, he wrote an interesting and delightful book, the *New American Navy*, in which, in addition to delightfully telling the story of naval achievements in the Spanish-American War, the Secretary closed volume 2 (pp. 182-186) with a discussion of the issue that has been raised in these hearings: Civilian or military direction of the Navy. It is a clear, convincing, and illuminating answer to all those officers who, in their zeal for full military responsibility, have forgotten the genius of our American Government. And, Mr. Chairman, I wish to emphasize that. Every officer who comes before you and advocates military responsibility ought to go back and read the debates before we adopted the Constitution; he ought to learn something about the genius of America; he ought to understand that the fathers who founded this Government never would permit a military man to be the Secretary of War or the Secretary of the Navy. Secretary Long closes with this wise admonition, which is as applicable and sound to-day as when penned by that distinguished Secretary of the Navy:

Precedent quickly hardens into an inflexible system, and the first step should not be taken toward a military head of any department of Government.

Secretary Long's argument is as follows:

OURS IS A CIVIL, NOT A MILITARY, GOVERNMENT.

Ours is a civil and not a military Government. The President is a civilian, and, if he has had military experience, it is an incident in his availability as a presidential candidate rather than an element in his qualifications for the presidential office. The heads of the Army and Navy Departments are civilians. The fundamental principle of our Constitution is that the military is subordinate to the civil function. Then, too, as a matter of expediency as well as of principle, it is better that the head of each department should enter upon his duties with an open mind and without the possible bias of prejudice of favoritism which might come from having been himself a lifelong member of the body over which he is placed. There must, of course, be the expert and professional knowledge of the trained naval officer; there must be experience with

ships and navy yards, with seamen and marines, and with all the details of naval life; but these are amply supplied by the men who are called around the Secretary, and placed by him in charge of the various bureaus of administration which have been described in former chapters, and the merits of the services of the chiefs of which has been heretofore acknowledged with the warm appreciation of one who has seen and felt their competency and devotion. The present general system of the administration of the Navy Department, as it has now existed for many years, has stood the test of all that time, including two recent wars, and the upbuilding of the new Navy during the last two decades. It is possible that some better system might be devised, but with the constant improvements in details which will incidentally attend it in the future, as has been the case in the past, no better system in general outline has been, or is likely to be, suggested. Certainly no change should be made which, while seeming to maintain the present relation of the Navy to a civilian head in form, will displace it in fact. For this reason it has seemed to me that the General Staff, which, so long as it is subject to appointment and control by the Secretary, as originally instituted by me, is a very valuable adjunct in insuring preparedness for war, should not be put by legislative enactment beyond immediate civilian control.

Certainly no such act should be passed with reference to the Navy as was passed in the last Congress in regard to the General Staff of the Army, which makes the chief of that staff the immediate head of the various bureaus of the War Department and practically gives him the control of them. Such an enactment with regard to the Navy would naturally be followed by efforts for fixed tenure of office and for steadily enlarging power. It might tend to an undue increase of expenditures, which are already necessarily great, by committing them to an official who is permanently identified with only his own profession and is not under the responsibility of a civilian member of a general administration which is directly accountable to the legislative branch of the Government and is subject to an early return to the criticism of popular elections. It is also likely to tend to professional jealousy—

I call your attention to that fact; the wisest officers in the Navy understand very well that its administration is very much better in the hands of a civilian—

on the part of naval officers toward one of their own number exercising the function of Secretary, while there is none toward a civilian exercising that function, who goes utterly out of sight after a short term.

That is the Secretary. Mr. Chairman, you will observe a little soreness on the part of officers who have a grievance toward the Secretary.

If there is under the present system sometimes a little soreness on their part toward the Secretary, as, of course, there now and then is, they can take it out by growling—

This is John D. Long, ex-Secretary of the Navy, who is speaking now—

and calling him an uncomplimentary name; but they have, perhaps, for that reason, no jealousy of one with whom they have no question of permanent rank.

Now, John D. Long says it is not a wise thing.

Command of a ship or fleet is different from the command of the whole Navy. The former gives its possessor necessary and readily accepted control over his immediate subordinates for a limited period and within a limited range, the latter over the naval fortunes, the assignments to continuous duty, the whereabouts on the face of the earth of every officer in the service.

To be sure, the Army act above referred to gives this supervision to the Chief of Staff, "under the direction of the President, or of the Secretary under the direction of the President." But with a Chief of Staff well in the saddle, it is easy to see how slight a check upon his mastery this provision would be, especially hereafter when a new Secretary comes in and is consciously subordinated to what he is led to regard as the customary order of things. Besides, the act will be a stimulus to the Chief of Staff to hereafter seek always direct communication with the President; and a President with aggressive force would easily

come to deal directly with the official who by such a law is made the real working head of all the bureaus and machinery of the department.

Under such circumstances the Secretary could hardly fail to lapse into a figurehead in the administration of the Navy and really to have no other function than to sit in an advisory capacity at the Cabinet table. Precedent quickly hardens into an inflexible system, and the first step should not be taken toward a military head of any department of the Government.

That is from John D. Long, who was one of the wisest and ablest men of his day in America, a philosopher, a scholar, and a patriot, at a time when he realized these responsibilities and duties, and he has placed it on record, and I wish to put it in this record as the best defense and the wisest defense of the American policy that I have ever read, and I put it there as a complete refutation of all you have heard of Prussianizing our Navy. Every argument you have heard, every letter you have had written to you advocating giving the Chief of Operations more power, ought to be judged as a proposition to make Von Tirpitz Secretary of the Navy of America, and to put Prussianism in its place. No man of character, no man of ability, no man of self-respect, no able man worthy of the place would accept the job when he is made a figurehead and a rubber stamp.

SIMS'S OBJECT THE REMOVAL OF CIVILIAN CONTROL, MAGAZINE WHICH IS PUBLISHING HIS ARTICLES STATES.

That one of Admiral Sims's chief objects in writing his letter of January 7 and bringing about this investigation, was to curtail the power of the Secretary and remove the Navy, so far as possible, from civilian control, is stated by the magazine which is publishing admiral Sims's articles on the Navy. In its March issue the *World's Work* has a long editorial headed, "Admiral Sims and Mr Daniels," in which it states, regarding the Sims's letter, that "In order to understand the document clearly, it is essential to understand the motive which prompted its preparation," and in the course of the article says:

The thing that is lacking in our Navy Department is the professional standpoint. There is no other great navy whose civilian head can control its military operations, both in peace time and in war.

Now, that statement in *World's Work* is not true. There is no English-speaking nation in the world, and there is no democracy in the world, where the civilian head does not control the operations of the navy in peace and war. He is provided with technical assistants, men eminent in the profession; but the last word in England, the last word in France, the last word in Australia, the last word in any country under the sun that is a democracy, is that a civilian secretary of the navy, who has a seat in the civilian cabinet, who presents naval needs to a civilian congress, and the naval officers and naval men must always, in the American or in any democratic nation, be subject to the civilian authority.

In Great Britain the civilian head can not issue a single order affecting the disposition of ships or their military operations without the approval of his military advisors. * * *

In this country civilian control is supreme, even in time of war; Admiral Sims believes that this is a great evil, that it might produce the most calamitous results, and that the military powers of the secretaryship should be curbed.

There it is, plainly stated.

Mr. Chairman, if Congress believes that civilian control is a "great evil," that the policy which has prevailed from the foundation of our Government should be reversed, and that the Navy should be removed from civilian control, let it follow Sims's lead—if the World's Work has quoted his reason and motive correctly, let it follow Sims's lead—create a general staff on the German model, and name some Von Tripitz to rule the Navy. But, Mr. Chairman, let us have no camouflage about it. Abolish the position of Secretary of the Navy, or provide that some admiral shall fill that post with a seat in the President's Cabinet. That would be the frank and open way to do it, rather than put some Sims in control of the Navy, with a nominal secretary as his clerk, messenger boy, and rubber stamp.

If this committee desires to raise that issue, I am perfectly willing to go to Congress and the country on it and let the American people and their chosen representatives make the decision.

The CHAIRMAN. Mr. Secretary, your charge of Prussianizing the Navy touches almost every officer who has testified before this committee. They have all testified in this respect—

Secretary DANIELS. I understand, Mr. Chairman, that you have written some letters to some officers of the Navy asking their opinion about organization.

The CHAIRMAN. Yes; I have written such letters to several of them.

Secretary DANIELS. To whom were they written? The reason I ask the question is this—

The CHAIRMAN. I mentioned that matter to a number of the witnesses in the hearings and stated my intention to write such letters.

Secretary DANIELS. The reason I ask that is this: This is the first time I have ever known the chairman of a committee to write to officers of the Navy except through the Secretary of the Navy. I do not object to that, and I should be very glad to have the officers of the Navy express their opinions to the committee through the Secretary of the Navy. It is establishing a new policy.

But what I desire to say is this: I desire to give you the names of other officers, because I apprehend that those to whom you have written are officers who advocate the plan of military control; but there are officers of the Navy, of high standing, who are just as much against that, who have not appeared before your committee, or who were not asked questions by your committee, who know that it is un-American and impossible. It would be manifestly proper that your committee should have laid before it the views of other officers of the Navy.

Now, I grant you, sir, that if you asked the majority of the admirals in the Navy who have been in Washington, before you, they would say that a naval officer ought to have absolute responsibility and authority. They are entirely wrong. If every admiral in the Navy would come before your committee and advocate that, you would never adopt it while the sun shines in the heavens and so long as this is a Republic. It has been attempted very many times before. It was attempted under Roosevelt's administration, and he opposed it. It was attempted under McKinley's administration and he opposed it. It was attempted under Arthur's administration,

and he opposed it. It was attempted under almost every administration we have had, and able admirals and distinguished admirals, splendid gentlemen, for whom we have the very greatest respect, advocate it; but they every one of them will begin and end with this: The Navy Department ought to be run like a ship. The captain of the ship ought to be the executive officer. And in this ship, as John D. Long points out, is the difference; that the Navy Department should not be run that way. Why, they forget that the business of the Navy Department is not only with naval officers. The Navy Department is in touch with shipbuilding and munition plants—as a matter of fact, there is not a business in America that does not touch the Navy somewhere. We buy direct, and we manufacture. It is a tremendously big industrial plant. Moreover, we must not forget it has a number of very able and distinguished high ranking officers of the line that have never felt that other officers in the Navy ought to have the voice and power that they are entitled to. You can not run the Navy by line officers alone. You can not run it by staff officers alone. They have got to work together. And when I came to Washington, Mr. Chairman, you know that a man who was an admiral who was Paymaster General or Surgeon General or Chief Constructor or in any staff position, could not be called commander or captain? He was not permitted to have his rank. You had to call him “paymaster,” or you had to call him “doctor,” or you had to call him “surgeon.” That was not so anywhere else in the world.

Line officers have their great duties, and they are the most responsible men in the Navy; and in operating ships, in navigating ships, in commanding fleets, their word must go. They must do that. But the great operations of the Navy take it all in. Take the Secretary's council. Who compose it? The Secretary of the Navy, a civilian; the Assistant Secretary of the Navy, a civilian; the Chief of Operations, a line officer; the Chief of Ordnance, a line officer; the Chief of Navigation, a line officer; the Surgeon General, a great physician; the Paymaster General, one of the ablest business men in America; the Chief of the Bureau of Yards and Docks, a civil engineer. So that we have there the working together of civilians and staff officers and line officers; and that is absolutely essential for successful operation. And so I would suggest to you that if you are securing opinions, they should not all come from men who believe that we ought to Von Tirpitz the Navy, or Prussianize the Navy, or make a Navy in which a line officer shall really be virtually Secretary of the Navy; because you have the opinions of such distinguished men as Admiral Badger, Admiral Fletcher, Admiral Strauss, Admiral Taylor, Admiral Griffin, Admiral MacGowan, Admiral Braisted, men of other views in the Navy; so that your committee should have a fair discussion of the matter. Have you written to all the bureau chiefs?

The CHAIRMAN. No; I have not.

Secretary DANIELS. I should suggest that you do.

The CHAIRMAN. Let me make a statement, please?

Secretary DANIELS. Yes.

The CHAIRMAN. As to your suggestion that we are writing simply to those who are in favor of certain things, there is nothing of that sort at all.

Secretary DANIELS. I did not mean to say that you were going that intentionally.

The CHAIRMAN. We want to get as many good opinions as we can.

Secretary DANIELS. Good!

The CHAIRMAN. This committee hopes to get something out of this investigation that will be of value to the Navy, and hopes that it will profit by the lessons of the war.

Secretary DANIELS. Very good!

The CHAIRMAN. I would be very glad to show you a list of those I have already written to, and I should be very glad if you would supplement it with others.

Secretary DANIELS. That is all right.

The CHAIRMAN. And then we will have the facts fully brought out. In fact, we asked them to do this so as to save time and so that we would not have to have them come before the committee.

Secretary DANIELS. I think that is very wise; but all that I had heard of who had received letters were men who were in favor of ousting civilian control and having military control.

The CHAIRMAN. I recall, for one, that we wrote to Admiral Badger.

Secretary DANIELS. I just said all those I had heard about, Mr. Chairman.

The CHAIRMAN. I do not think he recommended that.

Secretary DANIELS. But if you have received them, Mr. Chairman, it does not make any difference what they say; not the slightest. The genius of this great American Republic will never turn over the Navy Department to military control, either openly or under any camouflage. It will never give up to any naval officer control of the Navy Department. Very many naval officers want that. I have no quarrel with them. We talk about it openly, and have done so for seven years. But it is fundamentally wrong; and whenever you have taken the authority and given it to a naval officer to control all the activities of the Navy Department, the next thing they will want is to oust the civilian Congress from control; and the next thing they will want is to oust the civilian President from control and put a Von Tirpitz in control of the Navy and a Ludendorff in control of the Army; and I would fight it if I was the only man alive, on principle, to the end of time; and when it is done Americanism is ended in our Government.

The CHAIRMAN. A number of answers have already come in, and I do not think you will find, when these are published, that they go as far as you say; that they want to Prussianize the Navy.

Secretary DANIELS. No; but I think you will find it is true, Mr. Chairman, that every man who writes you says he wants to give to Naval Operations direct responsibility, says that he does not want the conditions Prussianized. He says, "Of course we want a civilian Secretary. We want a figurehead up there. We want a rubber stamp. We want a man to sit back and sign his name 'here,' and have no authority." And you will find it running through it all. They frankly tell me—the best friends I have, "Mr. Secretary, why, of course, we believe that naval officers are better fitted for this job." Well, I have no question about their being better fitted for

any technical job than any civilian we can get; but their very training unfits them for the duties of Secretary of the Navy.

The CHAIRMAN. You think it is a good idea, do you not, to investigate this matter and find out what reasons they have for wanting to do this?

Secretary DANIELS. Oh, absolutely; and I think their opinions might well be—but, Mr. Chairman, I think when all the opinions come in, no service should be permitted to dictate its organization. That must be done by the American people.

The CHAIRMAN. Well, I will say to you, Mr. Secretary, that what the committee purposes to do and expects to do, is to have a commission appointed, such as the Mahan commission, which will be made up of experts and which shall have civilians on it as well as naval officers, which can go over these different plans and make some recommendations that will go to Congress, which will have some weight.

Secretary DANIELS. That is right.

The CHAIRMAN. And this committee does not consider that it is a committee of experts; but the commission which will be appointed will be experts.

And further, Mr. Secretary, if it is not proper in your opinion for a committee of this sort to deal directly with the officers of the Navy, I think it should be proper. We are taking them simply, as I say, as witnesses.

Secretary DANIELS. I raise no question about that, because my policy has always been—when I became Secretary, it was the general policy that every officer who came before the Congress should first consult the Secretary of the Navy before he came up. I gave the order that every officer, the chief of any bureau, on any appropriation, when he should come before the committee, should tell them exactly what he personally thought ought to be done. If I had cut the appropriation down from \$10,000,000 to \$5,000,000, he ought to tell the committee that he had recommended \$10,000,000 and that it had been cut down; that he ought to give to Congress absolutely every fact that the department has got. And then, if I recommended \$5,000,000 and the bureau chief recommended \$6,000,000, it should be for Congress to say what should be the amount, with all the facts before them. It is the wise thing to pursue an open policy with Congress. So that I did not raise the question to suggest that anything had been done that was not entirely all right, but that if all these questions were being sent, I should request that you should not ignore the staff officers of the Navy and other officers of the Navy who have had large experience, and whose judgment, of course, is as good as the judgment of other officers.

The CHAIRMAN. I remember, during the hearing, speaking to Admiral Fletcher about the matter, and asking him to submit a plan; and, as I recall the testimony, he stated that his testimony would take the place of a plan.

Secretary DANIELS. Now, he is one of the ablest and wisest men in the Navy, and he is an officer—I think Admiral Fletcher was largely responsible for some of the organization Mr. Meyer had. He is an officer who understands that any particular organization or plan is not perfect, and his view is entitled to consideration; and so are all

these officers; and I submit, when you receive them all, any officer in the Navy who comes to this Congress and says to overturn, either by direction or by camouflage, civil control of the Navy, is advocating to you an un-American policy, a Prussian policy, a Von Tirpitz policy; and you can no more get the Americans to adopt it than you could make Von Tirpitz the Secretary of the Navy; and I have said to these officers directly and frankly and in the most friendly way, "What are you doing? You are advocating to un-Americanize America. You are going to put in office an admiral who is going to be in control and make the Secretary a rubber stamp." Well, of course, no man will take the position of Secretary of the Navy and be a rubber stamp. You will get a thing to do it, but no man would ever go in there when he was not the real Secretary of the Navy.

The CHAIRMAN. The answers that we get from these officers will show us the suggestions that they have to make, and these answers will all be considered by the commissioners that later will be appointed.

Secretary DANIELS. Yes. No department of the Government functioned more promptly and successfully than did the Navy Department during the war, and the organization was so efficient that no change whatever was found necessary. That it is far superior to any organization that ever existed before in the Navy, even the most persistent advocates of a General Staff admit.

How well it supplied the needs of the department was set forth by Admiral Benson in a speech to the Naval Academy Graduates' Association on June 1, 1916, in which, after describing the many improvements in the Navy, he discussed the naval organization and its efficiency, saying:

Cooperation between the various bureaus and offices of the department with the office of the Chief of Naval Operations has been most cordial and complete and the practical result has been all that could be desired. One day in each week the Secretary holds in his office a council composed of the chiefs of bureaus, heads of the various offices, the Assistant Secretary of the Navy, and the Chief of Naval Operations. At these meetings various questions of importance affecting the whole service are considered, the progress of work on ships discussed, new enterprises gone into, and a decision arrived at under the most favorable circumstances for wise action. Through these councils all are kept informed of important work, and a hearty cooperation followed by satisfactory execution of the Secretary's decisions is the result. In addition to this weekly council the Secretary of the Navy, through his own efforts, has organized a naval advisory council, known as the Naval Consulting Board, which, with his approval and sympathy, is collecting vast stores of information regarding the industrial resources of the country, and is perfecting a plan for the utilization of these industries for the support and assistance of the Army and Navy for the defense of the country in time of need.

A thoughtful consideration of the work that has been accomplished will show that all is being done now that could reasonably be expected from a so-called General Staff. In my opinion, the organization that exists in the department, and that is now in successful operation, is accomplishing in a purely American and businesslike manner all that could possibly be expected from the creation of a General Staff, and is, I believe, doing this in a much more satisfactory way. It is folly to talk of or to advocate clothing a Chief of Staff or a Chief of Naval Operation with authority independent of the head of the Navy. Such independent authority would lead only to confusion, and would do great harm. The fact that the bureaus, as now constituted, represent the different sections of the General Staff, that they have their special appropriations and are responsible for the proper development and operation of the various parts of the Naval Establishment under their cognizance, gives, in my opinion, to the organization of the Navy Department a distinctive strength and an added

efficiency not possible under a so-called General Staff organization. The present organization should be made stable and permanent, and if legislation is necessary to make this absolutely sure, then there can be no doubt that such legislation should be enacted, but in considering any legislation care should be taken that too great restriction is not imposed upon the freedom of action of the head of the Navy.

I desire to add that all the results I have related have been accomplished with the Secretary's assistance. No new legislation has been necessary and all that has been required of me has been to present the need and desirability of changes and improvements in order to receive the Secretary's sympathetic attention. He does not blindly yield to suggestions, but gives them the most earnest and thoughtful consideration. As the Secretary has often reiterated, his only requirement is that the proposed change shall add to the efficiency of the Navy in order that both the Navy's personnel and material may be capable of rendering, and may be made to render, 100 per cent efficiency. This policy of 100 per cent efficient service has been the basic creed of the Office of Operations, and when we shall have fulfilled that policy every unit of the fleet will at all times be ready to perform its functions, whatever the occasion that may require its service.

OBSESSED WITH IDEAS OF PRUSSIANIZING THE AMERICAN NAVY.

One line of testimony has been given to this committee which deals with what was done or left undone by me personally, although it refers to a period two years or more antecedent to the war. Admiral Fullam and Admiral Fiske have both told the committee in describing their dealings with me when I came to the department and found them occupying positions as assistant and advisers to the Secretary of the Navy, that in spite of my alleged courtesy and consideration, I would not take an interest in plans for war. I should like to explain this to the committee, as underlying it is a question of vital interest to the Navy of the United States, to the Congress of the United States, and to the people of the United States.

Admiral Fiske's conception—first, last, and all the time—of the first and essential step necessary to put the Navy in a condition for war was that the civilian Secretary of the Navy should be reduced to a position somewhere between that of a figurehead and a rubber stamp. Admiral Fullam took very much the same line, although when I first came into office his main idea seemed to be that it was essential in order to prepare the Navy for war, that the marines be taken off of our ships. I discovered very soon that this was a revival of an old contention raised some years before by Admiral Fullam, and I took no interest in raising it again.

When I had listened "with patience and courtesy" to Admiral Fiske a number of times explain his idea with reference to preparation for war, and it became clear to me that they were substantially as I have described above, I did lose interest and was unwilling to have him again thrash over the same old straw. Admiral Fiske presented practically nothing to me dealing with the preparations of the Navy for war during the two years he served as aid for operations which was not tinged with his primary feeling as I have described above. This was such an obsession with him that—situated as he was, an immediate aid and adviser to the Secretary of the Navy and presumably having some obligations of loyalty, not to me individually, but to his superior officer—he undertook, surreptitiously and secretly, to impose his ideas as above. In combination with six

other officers (subordinate officers in the department) and with a Member of Congress named by him in his book, who was a former officer in the Navy and at that time (1915) a member of the majority side of the House Naval Committee, Admiral Fiske got up proposed legislation for a chief of naval operations, which was taken up and pressed by the Member of Congress in question and was as follows. I quote from the bill H. R. 20975, third session, Sixty-third Congress, reported January 16, 1915:

There shall be a Chief of Naval Operations who shall be an officer on the active list of the Navy not below the grade of rear admiral, appointed for a term of four years by the President, by and with the advice and consent of the Senate, who, under the Secretary of the Navy, shall be responsible for the readiness of the Navy for war and be charged with its general direction.

Now, observe under this bill the Chief of Operations will be responsible for the readiness of the Navy for war, and be charged with the general direction of the Navy. He would oust the Secretary of the Navy and become the Secretary of the Navy.

The CHAIRMAN. But it says "under the Secretary of the Navy."

Secretary DANIELS. Well, of course, it says that, but as John D. Long pointed out, when any such words as those are used, it is not long before precedent hardens into militarism. [Continuing reading:]

All orders issued by the Chief of Naval Operations in performing the duties assigned him shall be performed under the authority of the Secretary of the Navy, and his orders shall be considered as emanating from the Secretary, and shall have full force and effect as such. To assist the Chief of Naval Operations in preparing general and detailed plans of war, there shall be assigned for this exclusive duty not less than 15 officers of and above the rank of lieutenant commander of the Navy or major of the Marine Corps.

It will be observed that Admiral Fiske proposed to make the Chief of Naval Operations responsible for the readiness of the Navy for war, a responsibility then and now divided among a number of able officers of the Navy, the commander in chief, and the Congress. Authority is a necessary complement of responsibility, and with this legislation on the statute books, Admiral Fiske, or whoever held the office, could have demanded authoritatively any legislation or taken any action in connection with the Navy which, in his opinion, was necessary to carry out the functions for which he was responsible. It was regarding this proposed legislation that I am correctly quoted by Admiral Fiske in his book by saying at the time that as far as the Secretary of the Navy was concerned, should this legislation pass, he might as well be at the top of the Washington Monument, without a telephone. I may add that Admiral Fiske talked to me so many times about this, and rarely about anything else, that he did not bring this in; and I was very glad, at first, to hear him, because I always give very careful and patient consideration to anything that the naval officers bring to me; and I told him to draw me up a diagram, pointing out how his plan would work. He did so, very elaborately, and when he finished I said, "Well, what power has the Secretary in all your organization?" "Oh," he said, "he is above everything. He is over everything." I said, "Well, what power has he got?" And, of course, the whole program, and the whole program of all this organization, is to place the Secretary of the Navy in the Washington Monument and not give him a telephone, so that he

will not know anything that is going on, and just "sign here." Un-American!

At the time Admiral Fiske found me so unresponsive to his proposed preparations for war, he was obsessed with the idea that the German general staff organization was, militarily, the most perfect thing on earth. Presumably the proposed legislation I have quoted was his conception of a Prussian staff. As a matter of fact, probably in no country—certainly in no English-speaking country—has there ever existed any such organization giving the military such absolute control. So far from being patterned after the Prussian general staff model, Admiral Fiske's surreptitious legislation would have put an officer of the United States Navy in a position where he would have had the powers and authority of the Prussian chief of the admiralty staff, Von Tirpitz, and the Kaiser himself combined in one.

Had I listened sympathetically to Admiral Fiske's war preparations along the line indicated by his surreptitious proposed legislation, the American Navy would have been at war long before April 6, 1917, but it would have been an internal war, and the wonderful record made by the Navy from April 6, 1917, to November 11, 1918—a record which this country can justly take pride in—would never have been made.

It is an unfortunate fact that a large per cent of the officers of the line of the Navy would have favored then, and would favor to-day, such legislation as Admiral Fiske proposed. This is due largely to the fact that so many prominent and distinguished officers, such as Admiral Fiske, have advocated such legislation in the past and indoctrinated some young officers with the idea that the American Navy could or should be independent of civilian control, whether of a civilian Secretary, a civilian President, or a civilian Congress.

It was but recently, when I found it so fully set forth in Admiral Fiske's book, "From Midshipman to Rear Admiral," that I learned of his underhand activities in the early part of 1915.

The regulations of the United States Navy provide—

No person belonging to the Navy or employed under the Navy Department shall attempt directly or indirectly to influence legislation in respect to the Navy without the expressed authority and approval of the department.

* * * * *

In accordance with the provisions of the preceding paragraphs, all officers of the Navy and Marine Corps shall refrain from any attempts to influence legislation by submitting drafts of proposed bills, or by arguments, recommendation, or otherwise, except through the regular official channels. This prohibition shall be construed as applying to all bills whose import tends in any way to affect the administration, status, or strength of the Navy, or of any corps or bureau. Such recommendations or suggestions for legislation as may seem desirable shall invariably be presented to the Secretary of the Navy for his consideration.

These regulations, I may say, existed many years before I became Secretary of the Navy. The regulations read this way in 1915, and yet Admiral Fiske, in secret conference with six other officers, prepared this bill without my knowledge or consent, and attempted, secretly and surreptitiously, to "put it over."

Let me say at once that I have never rigidly enforced the above-quoted provisions of the Navy Regulations. I have repeatedly not only authorized but encouraged bureau chiefs and other prominent

naval officials to appear before committees of Congress in advocacy of legislation which I personally did not favor. So far as I know, no Secretary of the Navy before me ever approved in toto the reports of the General Board. As a rule I have not done so either, but I was the first Secretary who ever furnished Congress with these reports so it might have the benefit not only of my own advice and opinions but of complete knowledge and the opinions of the distinguished officers constituting the General Board.

In 1914 Admiral Fiske thought there should be provision for a few thousand more naval personnel than I had recommended. He appeared before the Naval Committee and advocated these additional men; and it appears from his book that he did this with much trepidation, expecting to be severely disciplined. His trepidation was wholly unwarranted. Nevertheless in 1915 Admiral Fiske, as principal adviser to me, under the then organization of the Navy Department, holding a peculiar position of trust and confidence with respect to the Secretary of the Navy, undertook action concerning legislation which I will not undertake to characterize. At that time I had come to the conclusion that it was necessary to make some change in the organization of the Navy Department which I had found when I entered office nearly two years before. This conclusion was not reached hastily. The organization I found was given a full and fair trial, and I had consulted freely with numerous officers on the subject of changes necessary and desirable. I had listened for hours, not only to Admiral Fiske but to other advocates of the so-called "general staff" organization. The words "general staff" of themselves mean nothing. The Army has had a General Staff for many years, instituted by Secretary Root. Some years later Mr. Root, then Senator from New York, stated on the floor of the Senate that the General Staff of the Army as then operating was entirely different from what was intended and contemplated at the time the legislation he recommended was adopted. Yet the legislation had not been changed and the name was the same.

There have been all kinds of general staffs proposed for the Navy, but the underlying idea of every such proposition that I have seen is much like that set forth in the Fiske general staff or so-called Office of Operations, which I have quoted.

We have all as children read the fairy tales where the lovers were "married and lived happily ever after." During the seven years that I have been Secretary of the Navy I have listened to many proposed staff organizations which, if only adopted by a benighted Congress would insure that nothing would ever go wrong with the Navy. Of course it is impossible to prove definitely the results of an untried organization. But I have not been convinced in seven years, and I would not be convinced in 70 years, that it would be a desirable thing to turn over bodily the United States Navy to a clique of officers of the line that might be enabled to gain the favor of the changing administration.

A GENERAL STAFF WOULD HAVE PREVENTED 800-TON SUBMARINES.

Admiral Grant has testified before your committee, rather bitterly, as to the difficulties he experienced in getting the 800-ton submarine adopted. He does admit that the Secretary of the Navy would

listen, and the record shows that at least one chief of bureau and the Secretary of the Navy recommended building some 800-ton submarines. It is a fact that the Chief of Operations and the General Board were opposed to it. The record shows that the House Naval Committee went fully into the matter and had extensive hearings, and although Admiral Grant did not cause the abandonment of the smaller submarines (and I am not saying that the Chief of Operations and the General Board did not have good arguments and reasons for their position)—

The CHAIRMAN. What was the date of this, do you remember?

Secretary DANIELS. I think this was in 1915. I will find the date.

The CHAIRMAN. Who was Chief of Operations?

Secretary DANIELS. Admiral Benson. I remember now. Admiral Grant was put in charge of all the submarines in the spring of 1915, and got authority to do anything and everything necessary to get the submarines in fine condition and keep them so; and I will say, parenthetically, that if anything about the submarine did not function properly and was not well organized after the spring of 1915, Admiral Grant was in entire charge. I shall come to that, however, in another part of my hearing.

The record shows that the House Naval Committee went fully into the matter and had extensive hearings, and although Admiral Grant did not cause the abandonment of the smaller submarines (and I am not saying that the Chief of Operations and the General Board did not have good arguments and reasons for their position), the fact remains that in the very first appropriation bill after Admiral Grant began advocating the 800-ton submarine, which was really the first opportunity to take up their construction, there was a provision for 800-ton submarines. This provision was recommended by the Chief Constructor of the Navy and the civilian Secretary of the Navy. If we had had a general staff of the type proposed by Admiral Fiske, or even of a much milder type—one of the 57 varieties, which I believe have been proposed to me—and the Chief of Staff had been opposed to what Admiral Grant wished, that would have been the end of the matter. It is doubtful if we would have had a single 800-ton submarine authorized by this time.

POSITION OF CHIEF OF OPERATIONS CREATED.

Before passing from Admiral Fiske and the lack of interest in preparations for war, which he ascribes to me, I might remark that in 1915, after nearly two years' study of the problem, I did recommend a material change in the organization I found when I became Secretary of the Navy, by the establishment of an Office of Operations, with powers, however, entirely different from those proposed in the legislation surreptitiously brought forward by Admiral Fiske. At that time I was in complete ignorance of his surreptitious legislative activities. The committee will find that the legislative provision for the Office of Operations, as passed in 1915, was practically identical with that recommended by me. Under it you may call the Navy Department organization a General Staff if you will, though not the Fiske General Staff. Whatever it is called—and I want to emphasize this, Mr. Chairman—it proved sound under the stress of war. It gives the line officers of the Navy full authority

and responsibility within their proper sphere, while still allowing the civilian Secretary, the commander in chief, and Congress some latitude in fixing questions of policy, expenditure, etc. It is not perfect, but any organization which showed itself so flexible, efficient, and successful during the World War as that of the Navy Department, is perhaps entitled to some credit. Nevertheless, your committee will find that in a majority of the line officers appearing before it, if questioned, would advocate the General Staff organization of the department, or something approaching it. Agitation along this line in the Navy has been persistent for years. You gentlemen of the Congress with whom rests the ultimate responsibility will be importuned for legislation along this line in the future as in the past.

Now, I have here a hearing of April 28, 1904, before the House Committee on Naval Affairs, in which Mr. Charles H. Darling, Assistant Secretary of the Navy, took the ground and made a very able argument against transferring from a civilian head to a military head control of the Navy, and I think I will not read all of this, Mr. Chairman, but will put it in the record, if you think it is not necessary.

The CHAIRMAN. No; I guess not. You can put it in the hearing.

Secretary DANIELS. It is a very able argument, with questions and cross-questions, and as the result of all this in 1904 Congress refused to sanction any transfer of authority from a civilian to a military organization.

SECRETARY DARLING ON THE DANGER OF PRUSSIANIZING THE NAVY.

Sixteen years ago, under President Roosevelt, there was a comparatively mild movement in this direction, which was apparently so disguised that the then Secretary of the Navy did not at first appreciate it and recommended legislation making of the General Board a virtual General Staff. Nothing finally came of it, but there was much testimony before the Naval Affairs Committee of the House at that time, and I should like to invite attention to the statement made then by the Assistant Secretary of the Navy, Charles H. Darling, who "spoke out in meeting." His statements and reasoning are as applicable to-day as they were then. I find myself in full accord with them and wish to include them in my present statement for the benefit of the committee.

(The portion of the hearing referred to is here printed in the record, as follows:)

WASHINGTON, D. C., *Thursday, April 28, 1904.*

Hon. George E. Foss, chairman, presiding:

STATEMENT OF MR. CHARLES H. DARLING, ASSISTANT SECRETARY OF THE NAVY.

The CHAIRMAN. Here is the bill, Mr. Secretary. We will be glad to have your views briefly and in your own way as to this bill that is pending before the committee for consideration. As you will see, the bill provides "That the Secretary of the Navy is authorized, in his discretion, to constitute a General Board by detaching not to exceed seven officers on the active list of the Navy and Marine Corps, not below the rank of captain in the Navy, for such general military duties as the Secretary may from time to time direct."

Mr. DARLING. Would you prefer that I express my views in narrative form instead of answering interrogatories?

The CHAIRMAN. Yes; I think probably that would be more satisfactory, unless you want us to ask questions, and in that even we can. Go ahead in your own way.

Mr. DARLING. I do not appear here at my own solicitation to oppose this measure which has been presented by the Secretary. I do not feel like urging upon the committee my personal views.

Let me say, once for all, that the most cordial relations exist between myself and the Secretary, the admiral of the Navy, the chiefs of the respective bureaus, and all advocates of the general staff. The Secretary is fully acquainted with my views, and I speak with his full knowledge and consent.

Mr. DAYTON. That is the glory of this department—that it knows Congress wants the views of all men, knowing that even the best men disagree.

Mr. DARLING. I am in the position of a dissenting member of the court, and, with the profoundest respect for the Secretary and the advocates of the general staff, I am unable to agree with them in their views.

Among other reasons, I disapprove of this measure on three general grounds: First, the effect of this measure will be to make the Secretary of the Navy an ornamental figurehead; second, the measure savors too much of militarism to be consistent with the spirit of our institutions, even in the administration of the Navy Department; third, which is the corollary of the second, the military element of the Navy Department already has all the power and all the influence that it ought to have, either in the administration of the department or in making recommendations to Congress. I base my conclusions upon my observation and experience during the time I have been in the department.

Mr. DAYTON. How long have you been Assistant Secretary?

Mr. DARLING. Since the fall of 1901, during which time I have seen the passing of a Secretary and every chief of bureau save one. I came to the Navy Department from an inland State, having no special interest in the Navy Department or any of its branches. I came without prejudice and with nothing to unlearn.

Mr. DAYTON. I am glad to hear that there is one man like myself.

Mr. DARLING. So I have derived my conclusions from observing the working of the department.

While the bill provides that the Secretary may detail certain officers to such general military duties as he may from time to time direct, it is claimed that it is the intention of the bill to create only an advisory board. I am not concerned particularly with the wording of the bill. I am looking only to its effect, and that effect will be substantially the same whether it passes in its present form or whether it is limited to advisory purposes only.

With the exception of the third section, the Secretary already has authority to do all that he could do were this bill to become law. This demonstrates, therefore, that the bill relates only to the internal administration of the department. The board now exists within the department by virtue of an order of the Secretary acting within his administrative authority. We have, then, presented the case of such a board now created and so existing seeking from Congress an act of independent incorporation. Congress has created the Navy Department and, among other things, has given the Secretary general unwritten administrative powers. Among these unwritten powers is the power to create this board, which power has been exercised by the Secretary. This board, not content with deriving its powers from the Secretary, now asks a special act of incorporation.

Under this bill, stress has been laid upon the power of the Secretary to create or dissolve this board at will. I call your attention to the statement of the Secretary before the committee wherein he says: "Under this law the board is in the hollow of the hand of the Secretary. It may be dissolved at any moment." Passing two pages in his testimony, in answering a question asked by Congressman Rixey, we find:

"Mr. RIXEY. I understood you, Mr. Secretary, a few moments ago, to state that the bill would leave it in your discretion whether you would appoint this board or not.

"Secretary MOODY. Entirely.

"Mr. RIXEY. You would not consider the enactment of the bill as a direction to you to appoint the board?

"Secretary MOODY. I would consider, if I did not do it, that I failed to do it at my peril, and if I make mistakes on military questions without it, the country would hold me responsible for not using this authority given me. I think no Secretary would be likely to disregard the power given him here."

Here, then, lies the first fallacy. The department brings before you a bill and advocates this board on the ground that the Secretary would hold it in the hollow of his hand, with power to make or dissolve it at will, and then concedes that when this board has once become incorporated no Secretary would ever dissolve it. Perpetuity and perpetual succession here, as in all corporations, is the first purpose in incorporating. And if this bill were to become law, the board would not be dissolved. It would be much like the case of a bureau in which the Secretary now has authority on the termination of the office of a bureau chief to decline to recommend or appoint a successor and distribute the work among other bureaus as his judgment would dictate, and thereby strike down the bureau itself. But no Secretary would be likely to undertake the task of dissolving such a board, or strike down a bureau, or of consolidating the work of the bureaus, notwithstanding his authority, without an expressed provision of Congress.

Now, when this bill shall have become law, and when the Secretary has appointed this board and has appointed the member as military adviser, that adviser will be the only legally authorized official adviser of the Secretary. Upon the legal principle that the expression of the one is the exclusion of the other, this military adviser would at once claim that advice to the Secretary from the service was exclusively within his jurisdiction.

The CHAIRMAN. Judge, right there, don't you think he would call on the bureaus?

Mr. DARLING. I am coming to that in just a moment.

The CHAIRMAN. Excuse me.

Mr. DARLING. Give this chief adviser the highest rank in the Navy next to the admiral, and the word would soon be passed down the line that he was the official adviser, that none other need apply, and that all information must come to the Secretary through him. He being the legally authorized source of information and advice, the practice would be that all the Secretary's information with respect to the department would come filtered through that one source.

Now, it is suggested that the bureaus and all other sources are open. That is true, as a matter of law. The practice, however, would be to bring that officer, the chief spokesman of the advisory board (the Chief of Staff), immediately into contact with the Secretary, and without the slightest question, he would be in closer touch with the Secretary than any other or all others put together. And with that position given, you may limit this law or hedge it about as carefully as you will, that adviser will have the advantage whereby he will make himself the only recognized official adviser of the Secretary. Give the adviser that position, and the only limitations with respect to the subjects upon which he will give advice will be the restrictions that he imposes upon himself.

Napoleon, I think, once said: "Give me the educating of the children of France for 10 years and in 20 years I will rule the world."

Let a new secretary come into the department, uninformed on naval and military matters, give him one man who will be his only official adviser for six months, and in one year he will own the secretary.

It is also suggested that the secretary can free himself of this at once and at will. That is easier said than done. A secretary is not likely to feel that he is unduly influenced under those circumstances, but that constant dropping in his ears, like the constant dropping of water upon a stone, wears away all obstructions and moves him when he is not aware. The school boy uses his sponge to rub the marks from his slate, but, however vigorously he may apply the sponge, he eventually discovers that at some time, he knows not when, the pencil has scratched and the marks are there.

Again, the Secretary stated that this board should have but 7 members, and yet at the present time it has 12 in addition to the Admiral, making 13. When the Secretary came into the department, according to the Naval Register next preceding, it had 11. Now, in addition to the 13, it also appears in the last register that there are on duty with the General Board 2 commanders, 1 lieutenant commander, and 1 lieutenant, making 17. These last four are not members of the General Board, but are on duty with the board.

Mr. BUTLER. Excuse me; what are their duties?

Mr. DARLING. Such duties as the General Board may wish along their line. Understand, however, that these last four have no voting authority.

Mr. BUTLER. That makes 17 line officers?

Mr. DARLING. Yes; in addition to that, there are two others engaged in the study of target practice under the General Board.

Mr. RIXEY. What rank have they?

Mr. DARLING. A lieutenant commander and a lieutenant. I am not criticising the value of their work. I speak only concerning the view of the Secretary, that seven are enough.

Mr. MEYER. But, Mr. Secretary, are not some of these officers engaged in other duties?

Mr. DARLING. Yes, sir; a good many of them have other duties, but the point is that there are 17 or 19 men on or engaged with the General Board.

Now, if the Secretary will hold this board in the hollow of his hand, why this number, if seven, is sufficient? Does it need an act of Congress to reduce the board to its proper size?

Mr. BUTLER. Has he not authority to dissolve it or reduce it in number?

Mr. DARLING. It is the Secretary's creature.

The CHAIRMAN. It is created by regulation?

Mr. DARLING. Created by general order.

Mr. MEYER. His own general order?

Mr. DARLING. The general order of the Secretary.

Now, while there are seven only provided by this act, it would be perfectly competent to do under this act just what now appears by the register to have been done; that is, detail any number to duty not on but with the General Board, and with this act as a law the name of that number would be legion.

On the same principle the Secretary said that he would have no bureau chief or bureau officers on the board. Authority is now in his hands, and yet bureau officers are on the board.

The CHAIRMAN. In other words, judge, you take the position that he can do everything now that he can do under the first section of this bill?

Mr. DARLING. Yes, sir; and I maintain that more has been done than ought to have been done already. And you are asked to incorporate this board that it may have more power.

It may be suggested that this measure is a restrictive measure; but such is not the intention. No one has been before you, I dare say, advocating the passage of this bill on the ground that the board has now become so powerful that the department thought it necessary to have legislation in order to restrain it. That has never been suggested. That is not the proposition. Its purpose, on the other hand, is to extend or strengthen the powers of the General Board.

Now, in the matter of the necessity for its being established by law, it is claimed that its future efficiency depends upon its being so established, and that in view of the fact that it has been established by order as an experiment, good faith with Congress demands that it shall be established by law. Such, however, is not the history of the internal administration of the department.

The office of naval intelligence has been in existence something like 15 years. It has pursued the even tenor of its way during all that time, collecting information, digesting and preparing the same for the use of the Secretary, and yet has never been established by law.

The Naval War College has not been established by law.

The CHAIRMAN. How was it established?

Mr. DARLING. By order of the Secretary; just like the present General Board.

The board on construction was established by Secretary Tracy in 1889, and has never been established by law. By that order it was provided that certain bureau chiefs "shall constitute a board having general supervision over the designing, constructing, and equipping of new ships for the Navy." Under that order millions of dollars' worth of ships have been constructed. Questions of far-reaching importance to the Navy have been considered by this board. It has kept fairly within the spirit and letter of this order. It has never insisted that it should be incorporated, and consequently it has never occurred to any Secretary that it should be. Its work has been of exceeding great value to the department and to the service, and there is no more reason for incorporating the General Board than for incorporating this.

The Naval Academy was not at first established by law, and, like the general government of our navy yards, now rests largely on the authority of the Secretary to administer the internal affairs of the Navy Department.

It is true that as it has become necessary to erect buildings or incur expense with respect to some of these institutions, Congress has so far recognized them as to make appropriation for their maintenance, but except as

appropriations have been provided their existence has generally been left to that authority of the Secretary to administer his department. And I understand it to be one of the arguments for this bill that it carries with it no appropriation, and, I would therefore add, needs no recognition from Congress.

Referring to the question of the necessity for more military power and more military advice, while it is recognized that the Navy primarily exists for the purpose of maintaining the fleet afloat, a vast amount of the work in connection with the administration of the Navy is civilian work, pure and simple.

THE CHAIRMAN. Will it be called military, coming within these terms—general military duties?

MR. DARLING. It is maintained by some that everything pertaining to the administration of the Navy, even to the smallest details, is military work, but I am unable to agree with those holding such views. The building of a battleship is purely civilian work. There are private contractors that even build guns. The armor plate is made wholly by private contractors. Our big private shipyards can build a battleship from truck to keelson—every feature and detail of it. It is entirely a matter of business administration.

The building and administration of the navy yard has its exact counterpart in the various private yards of the country. The furnishing of supplies, the construction of buildings, the administration of yards, the management of shops, is all work of civil administration. We have the various corps and branches of the service—the Marine Corps, the Pay Corps, the civil engineers, the constructors, the professors of mathematics, and the line. Now, the line is overwhelming in size as compared with all others put together. We have for this military duty that we are talking about the office of Naval Intelligence, with naval attachés all over the world. They are at work getting together and preparing this same military information that is being referred to. We have the War College, the duties of which are to work out these same problems. We have the fleet afloat everywhere, under the command of line officers, and we have the work of the various bureaus. In addition to all this, we now have this General Board.

MR. RIXEY. Mr. Secretary, could you give us the number of officers who are employed or engaged in these departments which you have mentioned?

MR. DARLING. The January number of the Register shows that there are at the Naval War College proper two captains, three lieutenant commanders, one lieutenant, and one major of marines. In addition there are on special duty at the War College a rear admiral, retired; a rear admiral on the active list, and a captain, and in attendance on the course of the college one captain. The War College, however, does its greatest work during the summer season, when there are in general a far greater number of officers on duty there than now.

In the Office of Naval Intelligence there are one captain, two lieutenant commanders, one lieutenant, and one assistant engineer, retired.

MR. ROBERTS. How many attachés, Mr. Secretary?

MR. DARLING. There are now only four regular, but there are some additional ones on special duty at the present time.

MR. DAYTON. Does the Hydrographic Office have anything to do with obtaining this information?

MR. DARLING. Well, I may say, strictly speaking, no. I have no doubt but that information that comes in through that source is of military value. Of course, all matters of navigation bear upon that subject to a certain extent, but in regard to the military information we are speaking of, I think it may be said that the Hydrographic Office has no special duties charged upon it in that respect.

MR. RIXEY. I would like to ask you this question: Can you tell us briefly the duties of the War College?

MR. DARLING. The duties of the War College are to study war problems and military tactical questions.

MR. RIXEY. As to the size of fleets?

MR. DARLING. All things of that sort. That is a very elastic body—Congressmen, with very elastic duties. There is a president of the college and certain officers are assigned there from time to time, and they carry on such military and tactical investigations as seem to them in charge to be of importance to the service and advantage to the Government. Their investigations may take very wide scope. When a question comes up that they feel they want to study, it is practically left to the discretion of those in charge of the War College.

Mr. RIXEY. Is that War College a continuing body?

Mr. DARLING. Yes; well, a continuing body; what do you mean by that?

Mr. RIXEY. I mean by that, has it existence all the time?

Mr. DARLING. Yes, sir.

We have these forces: The War College, the Office of Naval Intelligence, various attachés, the fleet afloat, the officers of the line on regular and special duties, together with this General Board. These are all engaged to a greater or less degree in the study of war plans, tactical problems, military duties, and digesting military information.

The officers are able, conscientious, and enthusiastic, and it can not be said that the military work of the department is suffering or being neglected.

I know of no reason whatever why this board should be established by law. The claim that the board lacks standing and dignity is without foundation. Some of the ablest and brightest men in the Navy are serving on and with the board, and these men bring to the board the dignity and standing that it deserves.

It is in practice the most influential and the most controlling force in the Navy to-day. Although it has no authority to issue orders, nevertheless, on a proposition fairly within its jurisdiction, in practice it outweighs the judgment of any bureau.

It is asserted that the board should be established by law in order that it may have more strength and force and that its recommendations may become more binding upon the Secretary and the department.

If its work were confined to the fleet and such moral force were given to the recommendations of the board as to make them practically binding upon the department, the military element would then control the conduct of the fleets in all particulars. It would determine whether the fleet should cruise at the rate of 8 or 16 knots per hour; whether in single or squadron formation; whether navy yards should be congested from overwork or demoralized from idleness; whether contracts should be made and supplies obtained by competition or selection; whether the fleet should take long or short cruises, continuous or intermittent; whether we should assume conditions of peace or assimilate conditions of war; whether ships should be used with care and safety or take chances in darkness and fog.

These are the orders that affect the consumption of coal, the expenditure of supplies, the extent of repairs, the wear and tear of ships, and the liability to loss—in short, these are the orders that control your appropriations.

And when this military advisory board is made responsible for these orders the country will be confronted with the proposition that the hand that bears the sword will hold the purse, a principle diametrically opposed to the genius of our institutions.

Again, this chief adviser, outranking all others in the service save the admiral, with this advisory board, would constitute an oligarchy in the service, and it would soon be found that desirable assignments and opportunities for advancement could only be secured by catering to this board and accepting its theories. Those in close touch would be favored, those not in close touch would be forever out. There have always been cliques in the service, and they have always caused embarrassment. This board legalized would provide great opportunity for a clique to get possession of and administer the Navy. Should an occasional Dreyfus case result, it would be most disastrous to the country, to the Navy, and to the officers themselves.

Mr. ROBERTS. Mr. Secretary, have you expressed your view of the third section of this bill as to a military adviser?

Mr. DARLING. I have not discussed the third section specifically, but have stated my views with respect to this military adviser generally.

Mr. ROBERTS. If we stood by this, what would be your views on that?

Mr. DARLING. With respect to the advanced pay and increased rank, I know of no need of it whatever. It is perfectly competent, and I have never heard anyone question the right of the Secretary to have anyone for his adviser whom he desires.

Mr. ROBERTS. The thing that I had more particularly in mind was the increase of rank and pay.

Mr. DARLING. That does not appeal to me. The officer would be on duty at the department like any other officer.

The CHAIRMAN. You think that the board as now constituted is doing good work and is a good institution?

Mr. DARLING. Yes; I think the board has done some good work and is a good institution, but I would restrict rather than extend its powers and authority. The board has taken up a great many things that it ought not to. It has taken up the question of title to land—work that could be done in any law office, and which has no more military or tactical significance than the administration of a law office. It has undertaken the purchase of land. It has attempted to administer navy yards. It has undertaken to locate storehouses, machine shops, and other buildings within naval reservations. These questions are entirely without military significance. It has undertaken to construe and interpret treaties and contracts. It has undertaken to inform the department what legislation was needed. It has devoted much time and attention to the reorganization of the Navy Department, as well the civilian as the military side. It has prepared and circulated much literature advocating a general staff. In short, it has already invaded the province of civil administration and planted there the standard of conquest.

And so, while I say that the board has done much valuable work, I would, by careful regulation, limit its jurisdiction by order of the Secretary, without an act of Congress, and say to it, "Keep within those limits; for thus far shalt thou go and no farther."

Mr. ROBERTS. Do you see any particular objection to the pending bill, if there is a limitation put upon it that the powers of the board should be advisory only?

Mr. DARLING. Yes; for the reasons that I have stated.

Mr. ROBERTS. You would still think so?

Mr. DARLING. I have not the slightest doubt about it. Underneath all that appears on the surface of this bill it contains the foundation for the establishment of the great General Staff, of which we have heard so much. When you have an act spread upon the statute books of the Nation which recognized and adopts the plan laid down in this bill, the General Staff will need no further legislation. It is only just a step in departmental influence to all those schemes and subschemes and theories which are called the General Staff.

Mr. ROBERTS. Are you satisfied with the present bureau system in the department as giving the best results that could be obtained?

Mr. DARLING. All government is a matter of growth. There are things that could be improved. As a distinguished officer once replied, and, I thought, happily, when some one said that the bureau system was rotten and would go to pieces in a week in case of war: "It is not so; it simply needs the executive touch." That is exactly true.

Mr. ROBERTS. I was speaking more particularly of the administration of the department in time of peace. Do you think we are getting the best results with the least expenditure out of the bureau system; that there could not be improvement in the way of consolidation to some extent?

Mr. DARLING. I think there could be improvement, Congressmen, but I would not attempt that improvement along the line of this bill nor in the direction of the so-called General Staff.

The General Staff is essentially an Old World idea, and while the study of foreign navies is always profitable, it is unnecessary and unwise, in my judgment, to ape the monarchies of the Old World.

Our organization may be improved, but on the whole it is well adapted to our Yankee genius, and I believe that the American officer and the American sailor and marine may be depended upon in the day of his country's need.

Finally, I believe I hold these views in common with a large body of reliable, patriotic, conservative, thinking officers in the service.

Secretary DANIELS. As I have stated, in the early part of 1915 there was much discussion over my action in opposing the Prussianizing of naval administration. I had opposed the Fiske plan with its ouster of civilian authority and I had interned Admiral Fiske. Congress enacted an Americanized plan of operations, and it has been conducted upon American and not upon the Von Tirpitz model. As a result of my all-American policy certain papers were very indignant. One critic declared I had "personally blasted all hope of establishing that centralized, responsible military control which is the greatest need of the Navy." I regarded then and regard now that criticism as a decoration of honor. Of all the services I have tried to render

my country as Secretary of the Navy, nothing, except the full consecration of effort in the World War, in my judgment, has contributed so much to an American Navy as my successful fight against adopting the Von Tirpitz plan of organization of the Navy Department. During the debate in 1914-15 as to whether the American plan of civilian control should be superseded by the Prussian plan of military control, there were many editorials in leading journals. I append only one editorial, as follows. I wish to read this one editorial from the New York Evening Post of April 28, 1915, which is one of the most able criticisms I have ever read. [Reading:]

CIVILIAN CONTROL OF THE ARMY.

[Editorial in New York Evening Post of Apr. 28, 1915.]

The critics of Secretary Daniels, being driven from one position after another, are now making a stand against him on the ground that he has "personally blasted all hope of establishing that centralized, responsible military control which is the greatest need of the Navy." Ex-Secretary Meyer has again joined in the hue and cry by demanding a naval budget of a large lump sum from Congress, to be expended by the Secretary and his naval advisers alone as they see fit, and also a national council of defense, which shall all by itself formulate the defense policies of the Nation. The Navy Department clique, which is so upset over the failure of Secretary Daniels to appoint Rear Admiral Fiske to the new position of Chief of Naval Operations, is also ringing changes on this question, while the Tribune declares that if Secretary Daniels had only "consented the Navy would now have to all intents and purposes a general staff." But the unpatriotic North Carolinian had selfishly, it is alleged, "begrudged surrendering that inexperienced civilian control through his own office."

Well, if Mr. Daniels had done any less it strikes us that he would have been faithless to a fundamental policy of this Government. It is precisely civilian control over things military and naval. The founders of the Republic wrote that policy into the Constitution because they had personal experiences with British military control, which made them particularly insistent that civilian officials should be in charge. To turn over the framing of our Army and Navy policies to-day to the proposed national council, comprising, as we understand it, a majority of military and naval men, would be as dangerous a step toward militarism as could well be imagined. Buttressed by the absurd theory that military and naval experts should decide how much money we should expend for Army and Navy, when they are in no wise charged with the responsibility either for raising the money therefor or for ascertaining what is the real public sentiment as to armaments and war policies, we might then have a situation precisely analogous to that of Germany to-day. There the German general staff dictates to the Reichstag what it wants and, moreover, formulates the public opinion of the nation on matters military. As the war has clearly shown, the German general staff officers are the masters of the nation and not its servants.

Exactly the same thing is what lurks behind the proposal to substitute with us complete military control for civilian. The General Board of the Navy has raged because some of the Secretaries of the Navy and Congress regularly have refused to follow its recommendations as to the size of the Navy. They have preferred to put their inexperienced opinion above the expert. In our judgment, they have been both wise and patriotic in so doing. The expert in any field is subject to bias; and the military and naval experts particularly take counsel of their fears of attack from one source or another. From them emanate many alarms of war, while their narrow training, totally different from that of the civilian legislator or the civilians charged with the carrying on of foreign and national policies, often makes them dangerous national advisers. We know what a cry would go up if it should be proposed to turn over the conduct of our national affairs to a general staff of physicians and surgeons, on the ground that the dangers from unsound immigrants, from the spread of insanity, and the annual waste of human life due to preventable disease, made necessary the placing in their hands of our Nation's policies and the unrestricted expenditure of some \$250,000,000 a year.

As for ex-Secretary Meyer's proposal that Congress vote a lump sum to be expended annually by the Navy Department, this is so absurd as hardly to merit serious treatment. Congress would never consent to it, and neither would the American people, particularly not at this hour, when the European military experts are so completely discredited in their prophecies as to the insurance value of large armaments and as to the actual happenings in the progress of hostilities. Could experts be more thoroughly discomfited than the war lords of the German general staff? Pro-Germans in plenty do not hesitate to say to us that it has completely overreached itself; that its Belgian policy was a crime, and that its chief folly has been due to a total inability to understand what was involved in national policies and national sentiments abroad. Never were military men so fortunately situated; everything was in their favor in a Nation which obeyed their slightest wish, and never have men so written themselves down as hopeless blunderers. We do not believe for a moment that with this warning example before them the citizens of this country will be tempted to turn over its military and naval affairs to unformed diagnosticians.

But to reassure some of our frightened patriots it is only just to point out that Mr. Daniels is not only going to appoint a Chief of Operations—we venture to say that he will be quite as able an officer as Rear Admiral Fiske—but that he has repeatedly announced that he will make no choice until he has consulted with the leading officers of the service and worked out a complete reorganization of the Navy Department in order to make the new official the efficient head of the military side of the Navy Department. Even the Tribune runs the danger of waking up some morning and finding that Mr. Daniels has done within the department precisely what it desired, in which case we guarantee that it will take all the credit therefor to itself and give none to the Secretary.

I also append a copy of my testimony before the House Naval Affairs Committee along the line discussed by Secretary Darling when I appeared before the committee early in 1916. [Reading:]

At the last session of Congress you made a change in the organization of the Navy Department which was epoch making and which practically followed out the recommendations of what was known as the Moody Board. You authorized the appointment of a Chief of Naval Operations. Previously there was a council of aids, which Congress had refused to legalize. It was a fifth wheel in organization, and the last Congress changed that and made the Office of Operations. The President named Admiral Benson as the first Chief of Operations. I do not think it is well understood what that office is or the very efficient service it has rendered in the perfection of organization and efficiency of the Navy. If you will bear with me, I would like to refer and touch upon the importance of that office to show what it is empowered to do and what it has done.

The CHAIRMAN. What do you mean by "Secretary Darling"? You have referred to him as "Secretary Darling."

Secretary DANIELS. He was Acting Secretary—Assistant Secretary of the Navy.

The CHAIRMAN. Assistant Secretary of the Navy?

Secretary DANIELS. Yes. Then I have here the regulations for the office. This office was created in the following language:

"There shall be a chief of naval operations, who shall be an officer on the active list of the Navy, appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet, and with the preparation and readiness of plans for its use in war: *Provided*, That if an officer of the grade of captain be appointed chief of naval operations he shall have the rank, title, and emoluments of a rear admiral while holding that position.

"During the temporary absence of the Secretary and the Assistant Secretary of the Navy the chief of naval operations shall be next in succession to act as Secretary of the Navy."

This office was organized, with Admiral Benson as first chief of operations, in June, 1915, the details and the regulations having been given very careful investigation and consideration after consultation with a number of the ablest officers in the Navy Department and in the service at large, were promulgated.

The functions and duties of the chief of operations, under the law, are covered in paragraph 126 of the Naval Regulations. These duties are thus prescribed:

"126. (1) The chief of naval operations shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparation and readiness of plans for its use in war. (Act Mar. 3, 1915.)

"(2) This shall include the direction of the Naval War College, the Office of Naval Intelligence, the office of target practice and engineering competitions, the operations of the Radio Service and of other systems of communication, the operations of the Aeronautic Service, of mines and mining, of the naval defense districts, Naval Militia, and of the Coast Guard when operating with the Navy; the direction of all strategic and tactical matters, organization, maneuvers, target practice, drills and exercises, and of the training of the fleet for war; and the preparation, revision, and enforcement of all tactics, drill books, signal codes, and cipher codes. The orders issued by the chief of naval operations in the performance of the duties enumerated in this paragraph shall be considered as emanating from the Secretary of the Navy and shall have full force and effect as such.

"(3) The chief of naval operations shall be charged with the preparation, revision, and record of regulations for the government of the Navy, naval instructions, and general orders.

"(4) He shall advise the Secretary concerning the movements and operations of vessels of the Navy and prepare all orders issued by the Secretary in regard thereto, and shall keep the records of service of all fleets, squadrons, and ships.

"(5) He shall advise the Secretary in regard to the military features of all new ships and as to any proposed extensive alterations of a ship which will effect her military value, and all features which affect the military value of dry docks, including their location; also as to matters pertaining to fuel reservations and depots, the location of radio stations, reserves of ordnance and ammunition, fuel, stores, and other supplies of whatsoever nature, with a view to meeting effectively the demands of the fleet.

"(6) In preparing and maintaining in readiness plans for the use of the fleet in war he shall freely consult with and have the advice and assistance of the various bureaus, boards, and offices of the department, including the Marine Corps headquarters, in matters coming under their cognizance. After the approval of any given war plans by the Secretary, it shall be the duty of the Chief of Naval Operations to assign to the bureaus, boards, and offices such parts thereof as may be needed for the intelligent carrying out of their respective duties in regard to such plans.

"(7) The Chief of Naval Operations shall from time to time witness the operations of the fleet as an observer.

"(8) He shall have two principal senior assistants, officers not below the grade of captain, one as assistant for operations and the other as assistant for material.

"(9) He shall be ex officio a member of the General Board."

To assist him in this office he has 12 men of the Office of Naval Operations, 8 men in the Office of Naval Intelligence, 18 naval attachés abroad, 5 officers in target practice and engineering competition, and 10 at the War College, giving a total in the operations and at the War College of 53 officers in the Navy under his direction in carrying out the regulations and planning for war and getting information and communication.

In addition to that, while the General Board can not be said to be under his direction, because it is an organization that reports directly to the Secretary, he is a member of the General Board; and in the making of war plans, in the passing upon types of ships and every technical matter that comes under the purview of the Navy, there are 70 officers detailed for the work of operations, making plans for war, and kindred duties. Whenever there is need for additional officers for the work, they are detailed.

There seems to be an erroneous impression that under the present organization the Chief of Operations can exercise his functions only by courtesy or permission of the bureaus of the Navy Department. The functions of the Chief of Operations may be broadly divided into two general classes—those dealing with the operations of the fleet and those dealing with the preparation of plans for war. As regards the latter, he needs to utilize the bureaus of the

Navy Department; and it will be seen that the regulations give him full authority to require every bureau, board, and office of the department to furnish him with advice and assistance. It is difficult to see what more could be asked in this connection, for the organization is such that the Chief of Operations can demand the assistance he needs, regardless of personality.

I will not read all of this statement. It shows what the office has done and how it met the criticisms and the needs and responsibilities, and met them splendidly.

(The continuation of the above statement submitted by Secretary Daniels is here printed in the record, as follows:)

As regards the other broad division of his duties, the Chief of Operations has also full power and authority, and under the regulations orders issued by him have the full force and effect of orders from the Secretary of the Navy.

It is difficult to discuss in detail changes that have been proposed, because the majority of them are too definite. One suggested change, however, has been that the Chief of Operations should have a force under him to enable him to make war plans independently of the bureaus. It does not appear to be generally known that the Chief of Operations, in addition to the direct force under him—12 officers at present—has, in the officers under his direction in the Navy Department, Naval Intelligence, and Target Practice 13 other officers, and at the War College, Newport, also under his direction, 44 other officers. Under the regulations, also, he can call upon the General Board for any assistance in this matter in which it specializes. It is believed that it would be a serious mistake to organize the office of the Chief of Operations in any way with the idea that in making war plans it should be independent of the bureaus of the Navy Department. This is for two reasons:

The bureaus of the Navy Department, dealing with special subjects, are the repositories of knowledge and experience in those subjects infinitely superior to what could be obtained at any reasonable cost of personnel and effort by attempting to duplicate their knowledge and experience in the office of the Chief of Operations. It is obviously desirable that in the making of war plans these expert bureaus would be fully utilized. This is believed to be one distinct advantage of the present system.

Another essential reason why the bureaus of the department should be required to assist within their proper sphere in the preparation of war plans is that they are required to execute a material portion of the work involved, and it is essential that they should be fully advised and assist in their special fields from the inception.

A second feature of the present organization which appears to meet with some objection is that by which the Chief of Operations has charge of the operations of the fleet.

It is believed that in this respect the present organization fills a distinct need. It is not so long since the president of the War College was complaining, in substance, that the progress in the art of war made by the institution under his charge was not utilized by the fleet and that there was no system in this connection. Under the present system, with the War College and the operations of the fleet under a common head, there can be no ground for such complaint so far as the organization is concerned.

There is another condition, however, which is of prime importance in this connection. Under the system in use for a number of years past, the commander in chief had the responsibility for what may be expressed in broad terms as "the training of the fleet for war." The Atlantic Fleet, since January 1, 1906, has had six commanders in chief, each with his own staff, and each a zealous and capable officer with his ideas of what should be done, which naturally differed from the ideas of his predecessor and successor. There have recently testified before the Naval Committee the commander in chief of the Atlantic Fleet and the commander in chief of the Pacific Fleet. It is evident from their testimony that these able officers have radically different ideas, and that if they were interchanged, each, if given a free hand, would institute radical changes in his fleet.

Moreover, the department has had little or no means for judging of the efficiency of the fleet and its state of training for war, except reports of the commander in chief who was himself responsible for that upon which he was reporting. Furthermore, the Navy in its development has reached a stage

where soon we may expect to see at least two fleets, each with its own commander in chief.

Under the present system each year the ships of the battle fleet are given a standing for battle efficiency expressed by a numerical figure. It is found that in a given year this figure of efficiency for the twentieth ship, for instance, is probably only a third of that for the first ship, and that the first ship one year may stand very low the next year, and vice versa. Without attaching too much importance to numerical ratings as expressive of battle efficiency, it is evident that possibly the biggest field for improvement in the Navy today as an actual weapon of war is in bringing up the efficiency of the low ships to that of the highest ships. This requires standardized methods and the adoption and maintenance of the best according to some system possessed of continuity. It is believed that the United States Navy has now reached a growth and magnitude which requires that this work shall be directed from the department itself, and also that there should be in the department some authority upon whom the Secretary can rely and whom he can hold responsible for the training for war, not only of the Atlantic Fleet, but of all the Navy. Of course, this function must be exercised with judgment and discretion, to avoid crippling the initiative and zeal of the officers on the spot, but it is a function believed to be necessary for the best efficiency.

There have been two classes of criticism of the organization of the Navy Department which may be considered in a general way. One such was completely met by the legislation of March 4, 1915, though, as I have already indicated, this does not seem to be realized even by some officers in the Navy.

The statutes providing for the organization of the Navy Department, passed many years ago, stated that "the business of the Department of the Navy" should be distributed among certain bureaus, which should perform their duties "under the authority of the Secretary of the Navy, and their orders shall be considered as emanating from him and shall have full force and effect as such." It is difficult to see now an enormous concern such as the Navy could operate in any other way. The head of it can not attend to every detail himself. Some authority must be delegated to his immediate subordinates, and they in turn must delegate authority further down the line.

A criticism made of this system for many years was that under the organization there was no provision for what may be called, for want of a better term, the "military business" of the Navy Department. This allegation, if true, was a reflection, not upon the law, but upon the Secretary of the Navy. If the "military business" was part of the business of the department, the Secretary of the Navy should have assigned it to some bureau. As a matter of fact, for a great many years the "military business" of the Navy Department was handled by the Bureau of Navigation. At present the Chief of Operations is under the Secretary charged specifically by law with the "military business" of the department. It is evident, then, that since the institution of this office, authorized a year ago, the reproach that there was no provision for handling the "military business" of the department can no longer be warranted in any way.

There has been in the past another line of criticism of the Navy Department system which may be summarized as maintaining in the last analysis that the "military business" of the department was of such importance that officers charged with it should, under the Secretary, direct and dominate all the activities of the department, including the direction of the various bureaus and offices; in other words, should take over the complete administration of the department. This appears to be the underlying conception of many of those who demand that the Navy Department be administered by a general staff, although in foreign countries which have a staff for the navy, such as England and Germany, the staff in peace has no administrative functions and no direction of the executive organization of the department.

It is not believed that any system by which the Secretary of the Navy would be virtually a figurehead can operate satisfactorily under American institutions, which are based upon the ultimate subordination of the military to the civil.

A proposition made last year to establish under the Secretary a military officer, who should be responsible for the readiness of the Navy for war, comes under this class. That officer, having allotted to him by law responsibility which is now shared by a large number of officers of the Navy, by the Secretary of the Navy, by the President, and by Congress, could justly demand, in view of his responsibility, that as regards any matter in the Navy his

dictum should be supreme, as against every other officer of the Navy, the Secretary of the Navy, the President, and Congress itself. While this may seem improbable, it would still be a possibility, and is much more probable than many of the possible conditions alleged to be incident to the present system.

It is alleged, for instance, that at present the "military business" of the Navy Department might suffer because under the law some office or bureau might refuse to cooperate with the office charged with the "military business" of the department. There has been no such case since the present organization was instituted, and there can be no such occurrence if the present regulations governing the Navy are carried out.

The recommendation for a Chief of Naval Operations appears to have come originally from a board known as the Moody board, appointed by President Roosevelt in 1909. This board consisted of Justice Moody, formerly Secretary of the Navy; Judge Dayton, for many years a member of the Naval Committee; former Secretary of the Navy Paul Morton; and five retired rear admirals of the Navy, namely, Rear Admirals Luce, Mahan, Evans, Folger, and Cowles. This board recommended a Chief of Naval Operations in the Navy Department, who was to be the principal military adviser of the Secretary, but it specifically provided that he should have no administrative functions. The administrative functions in connection with the "military business" were to be handled by another officer. It is believed, however, that the present arrangement whereby the Chief of Operations, with the assistant for operations, covers substantially both the advisory and executive field contemplated by the Moody board, is somewhat superior to the arrangement recommended by the Moody board in this connection, while it carries out the intent of its recommendations.

There has been a suggestion, Mr. Chairman, of some change in the organization, and some gentlemen have proposed that instead of the American plan of organizing we should adopt a plan of autocratic governments. I think most of these gentlemen do not understand what the plan of the organization of the navy in England is, because the organization as you provided in your last bill is very kindred to that in Great Britain.

The statement concludes with this:

I have prepared here a very brief statement of the organization of the naval departments of Great Britain and of Germany.

I can read that now or just insert it in the record.

The CHAIRMAN. You might just put that in.

(The continuation of the statement referred to is here printed in the record, as follows:)

I have prepared here a very brief statement of the organization of the naval departments of Great Britain and of Germany, which I can read in a very few minutes, or which I can merely insert in the record, as you desire.

The CHAIRMAN. I suggest that you read it, Mr. Secretary.

Secretary DANIELS (reading):

MEMORANDA IN REGARD TO A GENERAL STAFF.

The term "general staff" is one which is loosely applied to a number of different forms of organization varying widely between themselves in character, scope, and power. In order to understand its functions in any particular case it is necessary to examine in some detail the entire administration of which it may form a part. For this purpose it is proposed to take as examples the British Navy, the German Navy, and the United States Army, in each of which there is a body partaking of the nature of a so-called "general staff," though in the first-named two services not so designated by name.

THE BRITISH ORGANIZATION.

The British Navy has for many years been administered by a board of admiralty commissioners, who exercise authority by virtue of letters patent from the Crown. The make-up of this board has varied from time to time, but at present it is constituted as follows: The first lord, the first sea lord, the second

sea lord, the third sea lord, the junior sea lord, the civil lord, and an additional civil lord. In addition to the commissioners as named above there is parliamentary or financial secretary, who is a member of Parliament and a member of the Government and a permanent secretary, who is a civilian. The commissioners exercise the powers of the office of "lord high admiral," and the letters patent from the Crown provide that any two or more of the commissioners may exercise these powers. This provision, however, is merely nominal, for by orders in council of January 14, 1869, and of March 19, 1872, there was made definite and permanent the supreme power of the first lord (a civilian), which long previous to these dates had become well established by uninterrupted usage. By these orders the first was held responsible to the Crown and to Parliament for all the business of the Admiralty, and the other members of the board were constituted his assistants in connection with such part of certain duties as might be assigned them by the first lord. It is therefore clear that both by precedent and by law the first lord, who is a member of Parliament and a member of the Government in power at any time, is in supreme and unquestioned control of the navy.

Under various assignments of duty the first sea lord is responsible to the first lord for the fighting efficiency and actual employment of the fleet. In the execution of these duties he has supervision of the mobilization of the fleet, of the intelligence, department of discipline, etc., and is the chief naval adviser in matters of maritime defense and naval strategy as influencing policy. About the end of the year 1911 or early in 1912 there was established by order of the first lord a "naval war staff," to systematize the consideration of all developments which bear upon strategy and tactics; this body is under the jurisdiction of the first sea lord. It is this body which is sometimes referred to as a "general staff," and the foregoing will serve to indicate its scope and power in relation to the naval establishment.

THE GERMAN ORGANIZATION.

The German Navy is organized in an entirely different manner and the apparent separation of the component parts of the organization depends entirely for its success on the form of the German Government itself. A brief summary of previously tried and abandoned organizations will contribute to a clearer understanding of that at present in control. For the first few years of the existence of the Prussian Navy (1848-1853) it formed a part and was under the control of the war ministry. In 1853 an independent naval board was created. In 1859 this board was split into two parts, the "Oberkommando," to discharge the function of the chief command and the "Marineverwaltung," for administrative duties. The latter was two years later developed into a naval ministry (Marineministerium), whose first head was also minister of war. Following the war of 1870 the "Oberkommando" was abolished and all functions of command and administration were assumed by an undivided admiralty under the authority of the imperial chancellor and the Emperor.

In 1889 a complete reorganization was effected; the "Oberkommando" was reestablished under the direct control of the Emperor, and this body exercised the authority of command over the fleets and the commander in chief of the home ports, who, in turn, were in charge of the military affairs of the ports as distinguished from the administrative affairs of personnel and matériel; the "Reichs-Marine-Amt" (imperial navy office) was established as an independent ministry subject to the imperial chancellor and the Emperor, and was charged with responsibility for all administrative duties. In addition there was a naval cabinet to the Emperor, which had to do with matters of promotion and appointment among officers of the higher ranks. It was soon found that the vital interrelationship between the departments made further changes essential, and thus resulted the complete reorganization of March 14, 1899, which established the present system of control of the Navy. The "Oberkommando" was once more abolished in so far as its functions of active command were concerned, but one of its sections, which had dealt with staff duties only, was retained and formed into the admiral staff of the navy (admiralstab der marine), which is still directly under the Emperor. The Reichs-Marine-Amt was retained unchanged and placed under the direct authority of the Emperor; in addition to these two bodies certain officers in positions of high command (commanders in chief of the home ports, chiefs of the high sea fleet and of the cruiser squadron, and the inspector of training) were given the first direct approach to the Emperor in matters relating to their own special functions, but in matters

under the cognizance of the Reichs-Marine-Amt they must cooperate with the navy secretary of state prior to laying the proposal before the Emperor. The Emperor also appoints direct an inspector general of the navy. The head of the Imperial German naval office (Reichs-Marine-Amt) is a naval secretary of state, and a Prussian minister of state, and as such is a member of the Bundesrath, and has the right of addressing in person the Reichstag in matters of naval finances; he is responsible for everything that relates to the matériel and personnel of the navy, and his functions can be described briefly as dealing with everything that costs money—his duties are, therefore, broadly administrative.

The "Admiralstab" is a body composed at present of 36 officers and is not concerned with administration, and in time of peace has advisory functions only; its chief is the Emperor's advisor on general policy in regard to the expansion, movements, distribution, and use of the fleet. In time of war the importance and duties of the chief of the admiralstab are generally enlarged and his power under the Emperor are practically unlimited for at such time matters of finance and administration are naturally subsidiary to the immediate necessity for victory. It is again clear in the German naval organization that the body referred to as a "general staff" is one without executive or administrative functions, except in time of war or peace it is subject to the Emperor, who is the civil head of the German government as well as commander in chief of the military and naval forces.

THE STAFF OF THE ARMY.

The General Staff of the United States Army was established by the act of Congress of February 14, 1903. By the terms of this act the General Staff Corps is composed of the Chief of Staff and 44 other officers detailed for periods of not more than four years from the Army at large, including all its branches. The authority of the Chief of Staff is under the direction of the President or of the Secretary of War under the direction of the President. The General Staff Corps has by law to do with the preparation of plans for national defense, and with all questions affecting the efficiency of the Army, in so far as the War Department is concerned. In an advisory capacity to the Chief of Staff and Secretary of War. The Chief of Staff, however, is by the law given authority over the Army at large and all the various administrative offices of the War Department. The General Staff of the War Department is organized by regulations to assist and advise the Chief of Staff in the exercise of the authority entrusted to him by law. It is, therefore, clear that in this case the General Staff is an administrative as well as an advisory body, and in this fundamental respect differs from the so-called general staff as they exist in the British and German navies.

ORGANIZATION OF THE NAVY.

The present organization of the United States Navy Department as regards staff work is closely akin to that of the British admiralty. The Chief of Naval Operations is, by the act of March 3, 1915, charged with duties approximately the same as those of the first sea lord, and his responsibility to the Secretary of the Navy is similar to that of the sea lord to the civilian first lord. Likewise the General Board of the United States Navy, created by Executive order, comes within the Division of Operations of the department and can be utilized to render to the Chief of Operations the same assistance as the naval war staff of the British Admiralty, also created by an executive order of the first lord, renders to the first sea lord in the discharge of his duties. In the case of either organization it is natural that a "naval war staff," "general board," or "general staff" should exercise such influence in time of war as to make it the predominant factor in advising the responsible executive head of the service, and at such times it would probably exercise something approaching executive functions through the agency of the Chief of Naval Operations.

It appears that the present United States naval organization is, so far as staff work is concerned, in accordance with the theory of development of the organization of the two great naval powers referred to. The outstanding conclusion which must be arrived at from a study of these organizations is that there is practical agreement on the principle that staff work can be most efficiently developed by relieving the staff of all the routine administrative

duties involved in the executive work of an organization of the magnitude of a large modern navy.

* * * * *

Secretary DANIELS. At the end of that hearing I said this, Mr. Chairman:

Secretary DANIELS. Mr. Chairman, at the close of the morning session I had about completed what I desired to say about the organization and the functions of the office of operations. I should like to add an extract from the message of the President of the United States to the House of Representatives in 1909, from Mr. Roosevelt, when he presented a report of the committee on naval reorganization, which appears in Document No. 743. He used these words: "I invite your attention to the sound and conservative character of the report."

Now listen, Mr. Chairman, to what President Roosevelt said:

"It is in full accord with American policy, for it recognizes the complete supremacy of the civil power as regards the military no less than the civil or manufacturing side of naval administration."

It is in accordance with that sound American view that we have organized the department of operations and are conducting it. I think on that line I have covered the matter as fully as I should like to take your time to do.

GIDEON WELLES OPPOSED MAKING THE SECRETARY OF THE NAVY A MERE
CLERK.

When the Navy of the United States was created in 1775, it was handled by a Marine Committee and in 1776 by what was called a Continental Navy Board, following 1779 by a Board of Admiralty.

In 1798 a Department of the Navy was created with a Secretary of the Navy, and in 1815 the general direction of affairs was placed in the hands of a Board of Navy Commissioners. This latter board which had been characterized as a debating society, continued in existence until 1842, when an organization, substantially that now in existence, was established. In other words, the business of the department was distributed amongst bureaus, each suited to a particular kind of work.

With the demands made upon the Navy Department during the Civil War, it became evident in 1862 that the creation of additional bureaus would be necessary in order to handle the increased business and the new developments, such as steam machinery, which was so extensively introduced about that time.

In 1865 an attempt was made to again appoint a board of admiralty consisting of five officers ranging in rank from vice admiral to lieutenant commander to relieve the Secretary of the Navy of his duties—that was the first Prussianizing attempt—but the proposition was defeated in Congress, the principal argument advanced against the creation of such a board being that the Secretary of the Navy could at any time convene a board of experts competent to pass judgment on any special subject upon which he desired information, whereas, under the proposed organization the board of admiralty might be composed of officers who had no particular knowledge of a subject which the Secretary might desire to have investigated.

The bureau system continued unmolested until 1869 when a new bill was introduced in Congress to create a board of survey to consist of three officers not below the grade of rear admiral, who would absorb the functions of the Secretary of the Navy and of the bureaus.

The peculiarly civil administration of the department was to give way to the military, and the position of the Secretary of the Navy to become that of a mere figurehead, who would give his approval to the decisions of the board of survey. This bill to reorganize the Navy came at the end of the administration of Secretary Gideon Welles, and it is interesting to note what that distinguished Secretary has to say on the subject. Gideon Welles says:

The House Naval Committee came unanimously to the conclusion, after patiently listening to Porter (Admiral), hearing Grimes (Senator), and understanding the wishes of Grant, that it was best to move slowly, and have therefore deferred further consideration of the bill until next December. * * * The bill among other provisions establishes a board of survey to consist of three admirals of which it is well understood Porter was to be the president. This would have placed him in the department as superior or superintendent.

It is obvious that the scheme of bringing Porter here to take charge of the Navy Department and the new Secretary also has been long since planned and is a part of Grant's military policy. * * * Borie was a passive tool. Borie was Secretary of the Navy. He is now a mere clerk to Vice Admiral Porter, not the Secretary of the Navy. This is Grant's work and purpose; the Navy is to be conducted on a military plan and system—law, usage, and system are set aside.

They are the words of Gideon Welles.

DID NOT DESIRE TO DISPLACE ADMIRAL DEWEY AND THE GENERAL BOARD.

The day after the naval appropriation act of March 3, 1915, was passed, the following statement was issued to the press in regard to the section of that law creating the Office of Chief of Naval Operations:

[Press notice, Mar. 4, 1915.]

It will be observed that in the naval appropriation act passed yesterday the clause defining the duties and position of the newly created Chief of Naval Operations differs materially from the original draft presented. "While favoring the principle, I was opposed to the provisions of the original draft," said Secretary Daniels to-day, "because it appeared to me to have the effect of abolishing the General Board, or at least of seriously curtailing its usefulness. It surely would have removed from the board's duties its chief and most important function of preparing war plans. These plans have for many years been prosecuted with diligence under the able guidance of the Admiral of the Navy, George Dewey. The result of his experience and knowledge of large problems, coupled with the labor and ability of the other officers detailed to duty on the board, could not safely be dispensed with. Needless to add that I could not be in sympathy with any measure that would minimize the value of the services of Admiral Dewey to the Navy. In the measure as finally passed it is believed the law will enable a more thorough cooperation between the department and the General Board to be effected, while retaining the leadership of Admiral Dewey in the larger naval problems. I recognize the value of his distinguished service and depend too much upon his practical judgment to be willing to minimize the work which he is doing so well."

CHIEF OF NAVAL OPERATIONS CHARGED WITH THE "OPERATIONS OF THE FLEET" AND THE "PREPARATION AND READINESS OF PLANS FOR ITS USE IN WAR."

The Office of Chief of Naval Operations was created by the following provision in the naval appropriation act of March 3, 1915:

There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy appointed by the President, by and with the advice

and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain, for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet, and with the preparation and readiness of plans for its use in war.

During the temporary absence of the Secretary and the Assistant Secretary of the Navy the Chief of Naval Operations shall be next in succession to act as Secretary of the Navy.

In accordance with the provisions of this act, I issued the following "New Navy Regulations Governing the Office of Chief of Operations":

SEC. 3. The Division of Operations of the Fleet, Article 126: 1. The Chief of Naval Operations shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparation and readiness of plans for its use in war. (Act of Mar. 3, 1915.)

2. This shall include the direction of the Naval War College, the Office of Naval Intelligence, the Office of Target Practice, and Engineering Competitions; the operation of the Radio Service and of other systems of communication, of the naval defense districts, and of the Coast Guard when operating with the Navy; the direction of all strategic and tactical matters, organizations, maneuvers, target practice, drills, and exercises, and of the training of the fleet for war, and the preparation, revision, and enforcement of all tactics, drill books, signal codes, and cipher codes. The orders issued by the Chief of Naval Operations in the performance of the duties enumerated in this paragraph shall be considered as emanating from the Secretary of the Navy and shall have full force and effect as such.

3. The Chief of Naval Operations shall be charged with the preparation, revision, and record of regulations for the government of the Navy, naval instructions, and general orders.

4. He shall advise the Secretary concerning the movements and operations of vessels of the Navy and prepare all orders issued by the Secretary in regard thereto, and shall keep the records of service of all fleets, squadrons, and ships.

5. He shall advise the Secretary in regard to the military features of all new ships and as to any proposed extensive alterations of a ship which will affect her military value, and all features which affect the military value of dry docks, including their location; also as to matters pertaining to fuel reservations and depots, the location of radio stations, reserves of ordnance and ammunition, fuel, stores, and other supplies of whatsoever nature, with a view to meeting effectively the demands of the fleet.

6. In preparing and maintaining in readiness plans for the use of the fleet in war, he shall freely consult with and have the advice and assistance of the various bureaus, boards, and officers of the department, including the Marine Corps Headquarters, in matters coming under their cognizance. After the approval of any given war plans by the Secretary, it shall be the duty of the Chief of Naval Operations to assign to the bureaus, boards, and offices such parts thereof as may be needed for the intelligent carrying out of their respective duties in regard to such plans.

7. The Chief of Naval Operations shall from time to time witness the operations of the fleet as an observer.

8. He shall have as senior assistant an officer not below the grade of captain.

9. He shall ex officio be a member of the General Board.

10. During the temporary absence of the Secretary and the Assistant Secretary of the Navy, the Chief of Naval Operations shall be next in succession to act as Secretary of the Navy. (Act of Mar. 3, 1915.)

GRANT PUT IN CHARGE OF SUBMARINES IN ATTEMPT TO REMEDY DEFECTS AND INCREASE EFFICIENCY.

In 1915 we were having troubles with the submarines we had inherited from previous administrations, and in May I determined to take radical measures to put the entire submarine force in better condition. Far from attempting to conceal their shortcomings, I announced that the "showing made by the submarines in the recent maneuvers" strengthened my determination to "begin at once a

thorough investigation to actually determine the cause and, if possible, to find a remedy for the too frequent breakdowns of submarines"; and on May 27, 1915, I issued the following public statement:

I am introducing this, Mr. Chairman, because Admiral Grant has been before your committee and made certain statements about the submarines, and I wish to show that the Secretary of the Navy early in 1915 recognized the troubles with the submarine, and in order to remedy them appointed Admiral Grant in full charge of submarines. I issued the following public statement:

With the growing importance of the submarine as an instrument of warfare, I feel that too much attention can not be paid to this branch of the service and every effort of the department will be directed to improving the records made by submarines during the recent maneuvers. The submarine is still in an experimental stage and the boat of two years ago, as compared with those now in active service abroad, is probably even more comparatively obsolete than an automobile of three years ago would be to-day, as the improvement in the design and building of submarines, here as well as abroad, has been even more rapid than in the case of motor vehicles.

Of the 12 submarines which came to New York for the maneuvers, one was unable to proceed, and various others suffered from breakdowns necessitating repairs of greater or less importance which took them out of the game for varying lengths of time. The full reports are not in, and it is impossible to name which boats were out of commission from serious causes and which had merely the usual trivial defects which must be expected at any time and which can be remedied without any serious delay or impairment of their efficiency. Reports, unofficial, give a number varying from five to seven as the total submarines effective during a certain period of the maneuvers.

The machinery of a submarine is very delicate. There is, first of all, the propelling machinery for surface work, which is subject to all the faults of an automobile engine and can have all of its various diseases. There are, in addition, the storage batteries which do not anywhere near approach perfection as yet and which are continually giving trouble in their use. Then there are the motors used to drive the boat when under water, which, like all electrical machinery, are delicate and subject to sudden breakdowns. The failure of any one of these three elements mean the putting of the boat out of commission until repairs are made, and it can thus be easily seen that a much higher percentage of breakdowns must be expected than in other boats. The battery trouble, as already announced, we hope to have eliminated in our newer boats if the Edison battery lives up to its preliminary tests. The other troubles are being eliminated with each new design as the defects of the old designs become apparent. What I am most interested in is in finding out whether these breakdowns were such as must be expected in more or less experimental boats or whether they were due to faults of construction that should have been remedied or to defects in our system of reporting and making repairs. It is my intention to immediately investigate this matter and to spare no effort to remedy anything which is possible of being remedied. I have had this intention for some time, but have waited in this matter for the results of the actual tests under war conditions before making any announcement, as I considered that was the best proof as to whether or not these boats were capable of sustained service. In some cases the breakdowns are probably due to imperfect design owing to the lack of data at the time at which the boats were built. This would be particularly true of the *E-1* and *E-2*, which have been mentioned as breaking down, as they were the first boats built after the change from gasoline to heavy oil engines. One of the *K* boats appears to have been in trouble also but none of this class has been finally accepted by the department as being satisfactory, having had their preliminary tests, but the builders still being responsible for their effective performance.

In the meanwhile the plans for the 26 new submarines authorized by the Sixty-third Congress are being pushed with all possible speed, and I am greatly pleased with the rapid and efficient work of the Bureaus of Construction and Repair and Steam Engineer in this matter. Bids will be invited for their actual construction next week. These boats include two more of the new sea-going submarines, which we are going to try to make the last word in such craft. It must not be forgotten that all of the submarines which have been

in trouble recently were designed before 1912. The newer boats, both nearing completion and about to be begun, are believed to be vast improvements upon the old models, and it is thought that the greater part of previous weaknesses have been eliminated.

On May 28 I selected Admiral Grant to take charge of the entire submarine service, stating that he would be—

Given large powers in construction work of and the development of the submarine flotilla and its organization, so as to bring it up to the maximum state of efficiency.

ADVISORY COUNCIL CREATED IN JUNE, 1915.

To improve the organization of the Navy Department and bring all the chiefs of bureaus in closer touch with each other, the Chief of Naval Operations and myself, in June, 1915, I created the "Secretary's Advisory Council." In explaining the reasons for the creation of this council I stated, on June 24:

NAVY DEPARTMENT,

June 24, 1915.

Following the appointment of Rear Admiral Benson as Chief of Naval Operations, Secretary Daniels has assigned two captains as principal assistants in this new office, one to be known as Assistant of Operations, and one Assistant for Material. Capt. Volney Chase was a short time ago designated as Assistant of Operations, and yesterday Secretary Daniels assigned Capt. Josiah S. McKean as Assistant for Material. He will enter upon this detail August 1.

I would like to insert here, Mr. Chairman, a word of appreciation to Capt. Volney Chase. He was the First Assistant of the Chief of Operations; a singularly able, devoted, and wise officer. A finer gentleman I never knew; and he gave his life for his country just as truly in the office of the Chief of Operations by his working overtime and by the tremendous efforts he put forth in the early days of the war—he left the office one night and was dead the next morning—as if he had died on the field of battle in the early days of the war. From the time we broke off relations with Germany, in February, up to his death in July, he was rarely away from the office, day or night, and in those days which have been called in question, from February to July, Volney Chase did a service for his country not surpassed by any officer that the Navy has had. And I wish to add this: We have named a destroyer *Chase*, in his honor. It is very regrettable that this great officer, conscientious and efficient, through whose hands passed most of the important measures from the time we broke off relations until his death, about the 1st of July—I will get the exact date—should not be here to tell you and to tell the world in detailed and accurate way, which characterized him, the great work that the Navy Department did in those tense and straining days, days during which he served so faithfully and laid down his life preparing what other men reaped. [Continuing reading:]

The act creating the position of Chief of Naval Operations provided that he "shall, under the direction of the Secretary of the Navy, be charged with the operation of the fleet, and with the preparation and readiness of plans for its use in war." In order that the highest efficiency of the position may be secured, Secretary Daniels, after consultation with some of the ablest officers of the Navy, has decided that those duties necessary in material in the way of keeping the fleet always prepared for war heretofore performed by

the aid for Material, shall devolve upon the Chief of Operations. This plan will enable Admiral Benson to keep in touch with the actual material condition of the fleet, as well as its operation. In accordance with this policy, therefore, no aid for Material will be named to succeed Admiral A. G. Winterhalter, who will in a few days relieve Admiral Cowles as admiral of the Asiatic Fleet. It is believed this organization will secure such direct communication and cooperation between the chiefs of the bureaus and the Chief of Operations as will make for the highest efficiency of the fleet. Under it there will be no longer separation of the matériel preparation of the fleet from its operation, for under the Secretary, the Chief of Operations will have all the knowledge about matériel as well as how to utilize it quickly to the best advantage.

The organization of the aids system is, therefore, discontinued. Instead of a council of aids, made up of officers selected especially to compose what has been known as the "Secretary's Advisory Council," that council will be composed of: Assistant Secretary of the Navy, Franklin D. Roosevelt; Rear Admiral W. S. Benson, Chief of Naval Operations; Rear Admiral Victor Blue, Chief of the Bureau of Navigation; Rear Admiral Joseph Strauss, Chief of the Bureau of Ordnance; Rear Admiral W. S. Griffin, Chief of the Bureau of Steam Engineering; Rear Admiral D. W. Taylor, Chief of the Bureau of Construction and Repair; Rear Admiral H. R. Stanford, Chief of the Bureau of Yards and Docks; Rear Admiral Samuel McGowan, Chief of the Bureau of Supplies and Accounts; Rear Admiral W. C. Braisted, Chief of the Bureau of Medicine and Surgery; Maj. Gen. George Barnett, Commandant of the Marine Corps; Capt. Ridley McLean, Judge Advocate General of the Navy.

The composition of this council, it will be seen, is made up exclusively of officers whose positions are created by act of Congress. I wish to emphasize that, because I think, gentlemen, in all the organization and development of the Navy authority ought to be given—I mean, we ought to conduct the department through the administration of officers whose appointment is authorized by Congress, and that their responsibilities ought not to be minimized or transferred to anybody, because they are responsible to Congress. That is to say, the Chief of Ordnance has his appropriations which he spends, under the Secretary. The Chief of the Bureau of Steam Engineering and the Chief of the Bureau of Construction and Repair and the Chief of the Bureau of Yards and Docks and the Chief of the Bureau of Supplies and Accounts and the Commandant of the Marine Corps and the Judge Advocate General, and it would be the greatest mistake on earth to place all those officers under the Chief of Operations. He ought to have the closest touch with them and the closest cooperation, but it would be a mistake to make them mere clerks to the Chief of Operations, even if you could find a Chief of Operations who was a superman, and we have not found any such yet. [Continuing reading:]

The composition of this council, it will be seen, is made up exclusively of officers whose positions are created by act of Congress, charged with certain statutory duties, all of whom are appointed by the President and confirmed by the Senate. It will meet with the Secretary every Thursday and at such other times as may be necessary.

"I do not believe," said Secretary Daniels, "that in all its history, taken as a whole, the bureau chiefs were so universally recognized as masters of the professional work under their special direction as now."

By constituting an advisory council of statutory officers of the Navy Department who are responsible to Congress, the Secretary believes he will secure better results than under the system of aids. As a matter of fact, he has given more thought to the selection of the men who will form this council than to any other one thing, and he is confident that these weekly, and, when necessary, more frequent, meetings will secure the best cooperation in the work of the department.

"I have learned to rely upon the men who will compose this council," said Secretary Daniels. "The bureau chiefs touch at first hand every unit (matériel, operation, personnel) of the Navy, and I have had almost daily conferences with them about the big problems in their bureaus. Of course, these will continue, but in addition, the new plan will give at least formal weekly meetings for common council and interchange of views."

We have heard much, Mr. Chairman, about the failure of the department to make preparations in the years 1914 and 1915; much that was not so; much that were mistakes; much from misinformation; much from lack of information—most of it the last—so that I wish to give you what was done by Congress and by the Navy Department in those days when they have said that the Navy Department was not preparing for the great event.

IMPORTANT FEATURES OF NAVAL APPROPRIATION ACT OF MARCH 3, 1915.

Upon the passage of the naval appropriation act of March 3, 1915 (which made provision for the fiscal year 1916, which began July 1, 1915), I made the following statement:

The naval appropriation bill for 1916 is the most liberal measure for the increase and support of the Navy, carrying more valuable legislation than any naval appropriation bill ever enacted by Congress. The wisdom of the present Congress, is shown particularly in its resistance to attempts to discredit the Navy's matériel and personnel; in its adherence to the fundamental types of fighting vessels—battleships, destroyers, and submarines; in its recognition of aircraft and submarines as important auxiliaries of warfare, and of the latter's increased efficiency; in its creation of a naval reserve; in the establishment of the Office of Chief of Naval Operations and the ranks of admiral and vice admiral; in the abolition of the plucking board; in equipping navy yards for the construction of ships and the increase in the manufacture of munitions of war; in well-considered and liberal appropriations for the needs of the service in every line.

The Sixty-third Congress has been more generous than any other in providing for the Navy, having authorized in the two naval appropriation bills an entire division of five dreadnaughts which will each cost in the neighborhood of \$15,000,000, three sea-going submarines, which will cost \$1,500,000 each; 23 submarines, which will cost about \$500,000 each; 12 torpedo-boat destroyers, averaging in cost about \$900,000 each; and a fuel ship, to cost \$1,000,000.

The total appropriation for increase of the Navy authorized by the Sixty-third Congress is \$86,145,535, showing an increase over the Sixty-second Congress by the Sixty-third Congress of \$30,250,466.52 for additional ships for the Navy. To this should be added \$1,000,000 for aviation and \$800,000 for submarines reappropriated from savings effected in expenditures ashore over the last fiscal year. This \$1,800,000 of money reappropriated by reason of economies effected should be added to the \$86,145,531, making \$87,945,531 for new construction.

The real progress that will be made by the Navy as a result of its liberal and intelligent treatment by this Congress can not be expressed by dollars and cents. Any person or any Congress can spend money, but no other Congress has gone so far to see that its appropriation was applied where most vitally needed and without regard to merely political considerations. Everything has been subordinated to the battle fleet and its efficiency. The haphazard and sometimes prodigal appropriations of previous Congresses for unnecessarily costly buildings at navy yards, which has been so justly criticized by former Secretary of the Navy Meyer in the public press, has been done away with. Expenditures ashore have been reduced to an absolute minimum, and in this connection it is pleasant to record the cheerful cooperation of Members of Congress from navy-yard districts, who have patriotically risen to the occasion and cheerfully acquiesced in the desire of the department to, first of all, increase the strength and efficiency of the fleet. Of perhaps even greater eventual importance than the mere physical additions to the fleet are the steps which have been taken toward increasing the personnel and modernizing the military organization of the Navy. The "plucking board," which had outlived its usefulness, has been abolished, and a system of promotion to take its place will be one of the first things taken up by the new Congress when it assembles.

COMPARISON OF ESTIMATES AND APPROPRIATIONS.

A comparison of the provisions of the bill with the recommendations in the annual report of the Secretary of the Navy for the fiscal year 1914, and the accompanying estimates for the fiscal year 1915-16, shows how closely Congress followed the thought and reasoning of this report. The building program recommended by the Secretary was: Two dreadnaughts; six destroyers; eight submarines or more, one to be of seagoing, and seven or more of coast-defense type (with a supplementary recommendation for a larger increase in submarine craft "appropriating generously therefor without reducing the appropriation for other classes," and \$1,000,000 for aviation); one gunboat; one oiler.

The building program passed by Congress is as follows: Two dreadnaughts, 6 destroyers, 2 seagoing submarines, 16 smaller submarines, 1 oiler, \$1,000,000 for aviation.

Perhaps the best piece of legislation for the Navy passed in a decade is the provisions in the present bill authorizing a naval reserve. It creates a naval reserve composed of only honorably discharged men from the Navy, on graded pay according to the length of time they have served. This not only provides a reserve of trained and experienced men, ready upon a day's notice to man our reserve ships and to supplement the war complements of ships of the battle fleet, but perhaps its most important feature is that which permits men to enter the reserve on graded rates of pay according to the length of service in the Navy. This feature will greatly increase the efficiency of the enlisted personnel by inducing the experienced men to remain in the service for longer periods and thus cause the bulk of the enlisted personnel to be composed of trained and experienced men. Under the conditions of to-day, only one-third of the entire enlisted force of the Navy are men who have had more than four years service. The other two-thirds are now serving in their first enlistment. This has been the case for many years. It is believed that this feature of the bill will place our enlisted force on a better status than that of any other Navy in the world.

The bill provides for a new position in the Navy, to be known as the Chief of Operations, who, under the direction of the Secretary of the Navy, will be in charge of the operations of the fleet and preparation of plans for its use in war. This new position, it is believed will coordinate more perfectly the work of the War College, the General Board, the Office of Naval Intelligence, and the carrying out of maneuvers by the fleet.

You will observe, Mr. Chairman, it says, "will coordinate more perfectly the work of the War College, the General Board, the Office of Naval Intelligence, and the carrying out of maneuvers by the fleet."

Never a suggestion there that it must supersede the working bureaus and take upon itself the work that the Congress imposed upon them.

The wisest men in the Navy believe this provision will make the organization as perfect as it is possible to make any organization, and will centralize in the Navy Department all the utilities which go to make for the preparation for war.

Admirals and vice admirals.—For a long time it has been felt whenever there were any joint operations between the navies of this country and of other countries that the American Navy had not had the position to which it is entitled because other countries, some of them with much smaller navies, have given higher rank to the commanding officer. We have now in the American Navy in command of fleets no admiral. The only admiral we have is Admiral Dewey, who is at the head of the General Board and does not go to sea. The conference committee has agreed upon a provision which will remove this handicap under which our Navy has been compelled to operate. It is provided that the commander in chief of the fleet on the Atlantic, Pacific, and Asiatic waters shall rank as admirals and vice admirals. This rank is not created to be conferred upon any officer permanently, but he occupies it only so long as he is in command afloat. The American fleet has become so large that the officers who direct it are entitled to the highest rank given to officers of any Navy in the world.

Plucking board.—The conferees, following what was the clear direction of Congress in both branches, has abolished the plucking board. It is advertent to

the necessity of some legislation to permit officers to be promoted to the highest grades before they are old men. But there has been such a difference of opinion as to exactly what provisions would accomplish this with justice to the officers and the country that the conferees have decided to omit the substitution of something in the place of the plucking board until the next Congress, when the needs of the personnel will be taken up.

Pay clerks.—The position of pay clerks in the Navy has up to this time been a most unsatisfactory one. Every paymaster, upon being detailed to a ship, was allowed to appoint his own clerk, and upon his detachment the appointment of the clerk was automatically revoked. This gave no permanent status to the pay clerks, and caused a great deal of confusion in the changing of duties of paymasters. The measure providing for a permanent corps of pay clerks is an excellent one for the general duties to be performed; and it at the same time gives an opportunity to the clerical force of the enlisted personnel to receive advancement. This provision, therefore, will promote the efficiency of the corps having charge of supplying the Navy in peace and war.

Naval constructors.—The steady increase of the building program and the constant developments in naval architecture call for more naval constructors, and the Secretary of the Navy is given authority to transfer an additional number of ensigns to the Naval Construction Corps, not exceeding 5 in any one calendar year, up to a total not exceeding 24. The necessity for this has been heightened by reason of the changed methods of construction that will be learned as the result of the present European war.

Medals.—Heretofore there has been a provision of law by which an enlisted man who showed distinguished conduct in battle or extraordinary heroism can be given a medal of honor, but there has been no such provision for an officer. The bill provides that the President may give such medal of honor to an officer who deserves it.

Radio.—The development that has been made in radio during the last year has demonstrated the great value that the service can render in war, and its prime importance as a means of communication. Communication is now readily had between the radio station at Arlington and the small radio station at San Diego, and the erection of the high-powered stations at San Diego, Pearl Harbor, and Cavite will, it is believed, insure communication between the department and the Government's most distant possessions at all times of the day and at all seasons of the year.

Marine barracks.—The Sixty-first Congress appropriated \$400,000 for the construction of marine barracks in Panama. In view of the fact that the forces of the Army will occupy the Canal Zone, the Secretary of the Navy did not authorize the construction of the barracks provided for at Panama, and this bill authorizes the use of the \$400,000 appropriated at Panama to be spent, \$200,000 each for barracks at Mare Island and Norfolk.

Shipbuilding at navy yards.—Until a year ago none of our navy yards were prepared to build ships except New York and Mare Island. The naval bill passed at the first session of this Congress carried an appropriation for a building slip that would enable Boston and Philadelphia to build ships for the Navy. The present bill carries an appropriation to enable Norfolk and Charleston to construct ships in these yards, and during the year the Secretary has arranged to build submarines at the Portsmouth (N. H.) yard. It is believed that if all the navy yards are equipped to do construction of some character the investment in the yards will yield a better return, and that the competition between the yards and the private contractors would insure that the Government will secure the construction of new ships at the lowest possible price.

The investment of money we made then, Mr. Chairman, in equipping navy yards to build ships and larger facilities for repairing them, paid for themselves ten times over during the war. [Continues reading:]

During the last year the Secretary of the Navy has established an aviation school at Pensacola, utilizing the grounds and buildings which had been abandoned when the Pensacola Navy Yard was abolished. For the first time in the history of the Navy aircraft were used abroad during the occupation of Vera Cruz, and the Navy aviators were able to render valuable service. The war in Europe has shown the great importance of aircraft. The conference report makes a new departure in aeronautics in the Navy and appropriates \$1,000,000 for the development of aeronautics and the purchase of modern aircraft. Here-

tofore the appropriations for aeronautics have been divided among the several bureaus. It is now concentrated, and with the school at Pensacola and the larger appropriations Navy aeronautics will become a much more effective agency.

In addition, the bill provides for an advisory committee for aeronautics. It is believed that this advisory committee, with the authority given, composed of officers of the Army and Navy and men skilled in aeronautical engineering and its allied sciences, will bring together the aeronautic services of the Government and give to each branch the valued results of study and investigation.

The aeronautic service is particularly hazardous and calls for men of enterprise and daring. The bill provides proper compensation for the courageous men who undertake this dangerous service for the Navy and permits the Secretary of the Navy to assign to this service officers of higher rank than have heretofore been available.

The conferees have voiced public sentiment in favoring a large increase in the fighting power of the Navy and limited new construction to ships deemed the most effective in time of war. The European conflict has demonstrated the use of submarines with a speed of 25 knots, or more if possible, but not less than 20 knots each, to cost not to exceed \$1,500,000 each. The first session of this Congress authorized the first submarine of this character which had theretofore been authorized. Up to the present war the largest submarine had been of 800 tons displacement. These three seagoing submarines will have a displacement of not less than 1,100 tons and as far as is reliably known are the largest projected by any country. Provision is also made for the construction of 16 more submarines, to cost not to exceed \$550,000 each. Six destroyers are authorized, to cost not to exceed \$925,000 each, and one officer, to cost not to exceed \$1,100,000. The regular program of two dreadnoughts a year, originally recommended by the General Board, is carried out in this bill. These mighty ships, exclusive of armor and armament, will cost not to exceed \$7,800,000 each.

It is estimated that fully equipped they will each cost between fourteen and fifteen million dollars. The first session of the present Congress authorized three dreadnoughts, thus making the record of the Sixty-third Congress five of these most powerful fighting ships.

The total appropriations carried by this bill reported by the conferees is \$147,538,981.88, of which \$45,053,801 is for increase of the Navy, exclusive of \$1,000,000 for aeronautics, which should be added, making \$46,053,801 for increase of the Navy in this bill. If to the new construction carried in this bill is added the amount for new construction authorized at the last session of this Congress, which was \$41,091,734, it will be seen that the increase of the Navy authorized by the Sixty-third Congress is \$87,145,535, which is \$31,250,466.52 more than was carried in the appropriation bills of the Sixty-second Congress for increase of the Navy. The total appropriations for the Navy in this bill is \$147,538,981.88. It should be borne in mind, however, that the last session of this Congress authorized the sale of the *Idaho* and *Mississippi* for \$12,535,275.96 and the construction of the powerful dreadnaught *California*. Therefore, the total naval appropriation in said bill should be reduced \$4,635,000, the amount authorized for the construction of the *California* by last session out of the proceeds of the sale of the *Mississippi* and *Idaho*, and the total naval expenditures of the present session of this Congress should be reduced \$5,827,410, the sum to be expended on the *California*. These amounts came from the proceeds of the sale of the *Idaho* and *Mississippi*, and therefore do not come out of the regular funds in the Treasury derived from taxation.

As I said before, the committee has heard many statements of the lack of preparation of the Navy in 1914 and 1915, and in the early part of 1915 there was some criticism.

STATE OF THE NAVY IN 1915 SET FORTH IN A LETTER TO DR. GARFIELD.

On April 26, 1915, in response to a letter from Dr. Harry A. Garfield, president of Williams College, asking for a detailed statement of the state of the Navy at that time, I wrote the following letter:

WASHINGTON, D. C., April 24, 1915.

MY DEAR PRESIDENT GARFIELD: I am in receipt of your recent favor asking for "an authoritative statement concerning the present status of the Navy equip-

ment of the United States," and take pleasure in complying with your request as far as is compatible.

There are now in active service, fully commissioned, 225 vessels of all characters, which is 36 more than were fully commissioned when I became Secretary. There are also 101 vessels of various types, in reserve and in ordinary and un-commissioned, capable of rendering service in war. We have under construction and authorized 77 vessels (9 dreadnaughts, 23 destroyers, 38 submarines, and 7 auxiliaries) as compared with 54 vessels (5 dreadnaughts, 14 destroyers, 23 submarines, 3 gunboats, and 9 auxiliaries), which were under construction on March 1, 1915.

All the vessels enumerated, those in active service and those in reserve, are supplied with munitions of war. No Navy makes public the quantity of ammunition and torpedoes, mines, and other implements of naval warfare which it keeps ready. It may be said, however, that within the last two years the quantity of all has been steadily and greatly increased.

Now, this is what was increased in 1913 and 1915:

For example, we have increased the number of mines, on hand and in process of manufacture, by 244 per cent. With reference to torpedoes, the increase in two years has been 90 per cent. By the enlargement of the naval powder factory, we shall soon be able almost to double the former capacity, and like enlargement of the torpedo works and the equipment of a plant to construct mines will still further increase, at decreased cost, the quantity of such stock; and the possession of these plants in time of emergency will enable the department to be in a better state of preparedness as regards the supply of ammunition than ever before.

The personnel of the Navy is at present composed of 4,355 line, staff, and warrant officers and 53,171 enlisted men. Increases in the number of officers is dependent almost entirely upon the output of the Naval Academy, admission to which is restricted by statute. The number of enlisted men also is restricted, and the Navy is to-day recruited to the maximum strength allowed. There are now with the colors 5,824 more men—an increase of 12 per cent—than there were on March 1, 1914.

My professional training as a journalist has always inclined me to the conviction that any officer, within the prescribed limit recognized in the Navy, should feel free to express his opinion in regard to matters in the service; and there is not an officer who commands a ship to-day who could or would say that his ship, without or within, was not as good as it was two years ago, or that the officers who command it and the crews who man it are not as thoroughly disciplined, sober, loyal, and efficient as they were two years ago or as they ever had been.

The Atlantic Fleet has just returned from Guantanamo, where it has for many years held its annual winter practices. This year more battleships and destroyers have participated in the maneuvers, and for a longer period, than ever before.

Under the direction of Admiral Fletcher, upon plans evolved at the Naval War College and approved by the department, the fleet has been busied in tactics to try out its efficiency and readiness. All reports tell of the enthusiasm of officers and men in this practice and the splendid record made by the ships. The fleet is now in Tangier Sound and on the southern drill grounds, where it will be busy in target practice until May, when it moves to New York for a week's well-earned leave. Then will come the review at New York, followed by maneuvers in Narragansett Bay region, and finally the review in Hampton Roads prior to sailing through the Panama Canal to the Pacific en route to the exposition at San Francisco.

These spring practices followed close upon the heels of valuable maneuvers and tactics in October, November, and December last. This was indeed strenuous practice, but it is the way the Navy is kept fit and ready; and the new admiral in command of the fleet and the department planned such extensive evolutions because the only way that the Navy can be always prepared is by practice, and practice, and then more practice. This simple statement of the operations of the fleet since October is one of the best answers I can give to your question as to the Navy's preparedness. The necessity of keeping ships in Mexico last year denied Admiral Badger the opportunity for as long practice as he had wisely planned, but the sudden call for the expedition to Vera Cruz demanded and exacted unusual service, to which the fleet responded with an alacrity and readiness which amply justify the faith of the country that there

exists to-day no more efficient institution than the United States Navy. Some critics have said the efficiency of the fleet was reduced by reason of going to Vera Cruz. To our regret, certain maneuvers and target practice of value were necessarily omitted. The emergency experience, however, of a year of stress and strain was of far greater value in one important respect than the well-planned routine, because it gave a demonstration of the readiness of the Navy in every department, afloat and ashore, to meet an urgent call. Its flexibility was shown in adjusting itself to entirely new and unexpected situations as well as its remarkable adaptability in handling every problem presented to it.

It must be conceded by all that the best school and preparation for war is war itself, and it was almost under this condition that our fleet acted in proceeding almost in a day to Mexican waters. The stay at Vera Cruz, however, did not prevent practice, for the ships individually or in divisions during a great part of the time held tactical maneuvers, torpedo-proving practice, and subcaliber drills in preparation for target practice.

For many years officers have written and talked about the formation of advance-base material and the practice of exercising landing parties of seamen and marines in the use of this important adjunct to naval warfare. Congress appropriated money for this important plan of campaign, but never until January of last year was the Navy thus exercised. There had been plenty of talk, but not until January of last year was it undertaken. Then, under instructions from the department, Admiral Badger carried out a comprehensive exercise in which the professional advantages gained by officers and men were inestimable. Three months after this extensive practice had been given for the first time in our Navy the same fleet and the same men were called upon to land at Vera Cruz, and in the taking of that city the Navy carried out under fire what had been learned at Culebra.

These details are given because every man knows that the efficiency of the Navy depends upon constant practice, but nobody in the Navy thinks anything like perfection has been reached, and constant study and work are pursued with the aim of continued improvement. If the fleet was efficient in any degree before Admirals Badger and Fletcher carried out the drills thus detailed, it is much more efficient to-day, and it will be made more ready every year. All that capable and trained officers and men can do to accomplish this steady improvement is being done. Only the uninformed or the partisan deny the steady improvement of the past two years, thanks chiefly to Rear Admiral Badger and Admiral Fletcher.

But, you say, how about equipment and preparation for military emergencies? What has been done since Wilson's inauguration to make the Navy stronger in ships, in ammunition, in mines, in torpedoes? These questions are of the utmost importance. Let me answer them briefly:

First, as to ships: During the last two years of the Taft administration Congress authorized the construction of two dreadnaughts to cost about \$13,000,000 each. During the first two years of the Wilson administration, upon my recommendation, Congress authorized the construction of five dreadnaughts to cost about \$14,000,000 each. Stated in dollars, the Wilson administration, in its first two years, authorized \$70,000,000 to be spent on the chief fighting force of the Navy, as against \$26,000,000 authorized during the last two years of Taft's; stated in numbers, it authorized five dreadnaughts instead of two; and stated in effectiveness, the five dreadnaughts authorized under Wilson will mount 36 more 14-inch guns than the two authorized under Mr. Taft.

Second, as to submarines: These wonderful agencies of war have astonished the world in the present European conflict. The Sixty-third Congress, elected with Wilson, adopted my recommendation to give us all the money it could for submarines.

That was my recommendation. "to give us all the money you can for submarines."

It ordered the construction of three seagoing submarines, the largest ever authorized by any country, and 23 submarines of the same size and type which have done such fearful execution in the present war. These submarines will cost \$16,260,000. Now, what was done during the last two years under Taft?

Twelve submarines to cost \$7,958,936 were authorized. Some of our submarines are not as perfect as they could be, nor are the submarines of any other nation. Under this administration, however, the board of inspections has adopted stricter tests before accepting submarines from contractors. Nobody has, as yet, perfected a satisfactory engine or satisfactory battery for subma-

rines. Upon my invitation, Mr. Edison, last year, at the New York Navy Yard, went down into a submarine and closely studied its every feature. He thinks he has a battery that will meet the need. Our tests at the Brooklyn Navy Yard cause us to believe Mr. Edison has the right principle. Without waiting for the completion of his battery, he has been given an order for two, one to be put into an old submarine, accepted before March 4, 1913, whose battery does not give satisfaction, and one for a new submarine which I have ordered built in the Portsmouth (N. H.) Navy Yard. Private firms building submarines have not given entire satisfaction. We have equipped the Portsmouth Navy Yard to build submarines, and by competition between private and Government construction it is hoped that every obstacle may be overcome.

Third, as to torpedoes: A statement has been put in circulation that the Navy is not making adequate provision to supply itself with torpedoes. The only answer I can make is to state the fact that we either have on hand or have placed orders for all the torpedoes the General Board prescribes. Is this administration going backward in this respect? It would not be proper to make public the number of torpedoes we have on hand, but this much may be said: For every 100 torpedoes which the department had on hand in March, 1913, 96 more are completed or in course of manufacture. Therefore, within a few months, the supply of torpedoes will be almost doubled. Upon my recommendation Congress has enlarged the torpedo plant at Newport, R. I., more than trebling its capacity, and the cost of manufacturing torpedoes has been reduced from \$4,202.11 to \$3,245.72 each. The reduction has already effected a saving of \$326,700.

AS TO MINES AND MINING.

During the last two years unprecedented progress has been made in the expansion of our mining equipment. This was begun and was well under way before the last Congress met. The Navy is not, as many suppose, charged with the mining of our harbors. That is a function of the Army. The extent of the mining operations of the Navy is confined to the immediate vicinity of the fleets and such mining as may be necessary on the high seas. For the execution of this work and a further study and development of mines and mining the Navy now has three ships—the *San Francisco* and *Baltimore*, mine layers and mine depot ships, and the *Dubuque*, mine-training ship. The General Board as early as 1908 recognized the need of mine depot vessels and recommended the conversion of two old cruisers for this purpose.

The same year Congress authorized the conversion of the *San Francisco* and *Baltimore*. Work was started on the *San Francisco* June 12, 1908, but was not completed until December 2, 1911. Work on the *Baltimore* was not started until April 5, 1913, and was completed April 1, 1915. As to mine sweepers a division of seagoing tugs and a division of torpedo boats have recently been equipped with mine-sweeping gear, and the destroyer tender carries mine-sweeping gear for a division of destroyers operating with the fleet. Additional gear is being supplied. At Pensacola during the winter the *San Francisco* and submarine flotilla have been operating jointly in mining exercises. The department has begun the manufacture of mines and in a short time will have 31 mines for every 9 it had two years ago, increasing our stock 244 per cent. By manufacturing mines at a Government station in lieu of purchasing them a saving of \$178,750 has been effected.

AS TO GUNS.

The Bureau of Ordnance has developed a 14-inch gun that will shoot farther, shoot straighter, and hit harder than any gun now in use or known to be designed in a foreign country. Based upon former and current prices in contracts for guns and gun forgings we have saved \$280,425.33.

AS TO POWDER.

Upon my recommendation Congress increased the capacity of the Navy powder factory at Indianhead. When the extension, now under way, is complete, the capacity will be nearly doubled. The cost of manufacture has incidentally been reduced 2.7 cents per pound, saving already in the cost of powder manufactured \$150,000.

AS TO RADIO.

Radio has at last been successfully installed on submarines, and more than 75 other ships, which either had no radio or whose equipment was obsolete, have been supplied with modern equipment. Three entirely new shore stations have been added to the chain—Balboa (Canal Zone), Great Lakes, Ill., and Tutuila, Samoa.

AS TO AIRCRAFT.

The European war has emphasized the value of aircraft. The Navy has lagged behind in this instrument of war. Last year I appointed a board of aviation. It recommended the utilization of the abandoned navy yard at Pensacola as a training and repair station for aviation, and an Aviation Bureau in the department. This has been done. Upon my earnest recommendation Congress appropriated \$1,000,000 to begin, upon an elaborate plan, the real development of aviation in the Navy. It also approved my request to pay aviators an increase of 50 per cent and we are organizing a class of capable aviators. To make immediately effective this statute, three new hydroairplanes have just been purchased, which is but the beginning of the work of aviation, now well advanced along the lines of a well-considered plan. I regard this as one of the most far-reaching steps taken by the Wilson administration.

AS TO SAVINGS EFFECTED.

All this unprecedented increase in the Navy has been secured, too, without large increase in appropriations, how? By avoiding unnecessary expenditures ashore, by reducing the cost of work ashore while maintaining its quality and reducing appropriations for enlargement of shore stations, by securing real competition, and by economy. During the four years of Taft, \$21,928,572 was appropriated by Congress for the public works alone of shore stations. Two naval bills have been passed by the present administration, and they carry together, for the public works of shore stations, a total of \$3,920,880. We have greatly reduced expenditures ashore and greatly increased them afloat and the above figures attest the change for the better. When I became Secretary ships could be built in only two navy yards. We have equipped or are equipping five additional navy yards for the construction of Navy craft, and this is being done while at the same time there is a big decrease in appropriations ashore. By securing competition I saved \$1,077,210 in one contract for projectiles. Up to date, by first rejecting all bids and demanding more reasonable figures, I have saved \$1,110,084 in the purchase of armor plate, securing lower prices than my predecessor secured. In two other bureaus alone last year \$1,800,000 was saved—more than enough to enable Congress to reappropriate \$1,000,000 of the savings for aviation and the balance for submarines. There has been the same character of savings in other ways—too many items to enumerate. So much for the material and preparation. Of course, we need constantly to increase the ships and armament, but the increase in the past two years, larger than in any previous two years in the history of the country, is an earnest of what will come in the regular and orderly and necessary increase of naval equipment.

But of what worth is a ship without well-trained men? What has the Wilson administration done as to personnel? It is a pleasure to tell you that for the first time in years the enlistment is up to the limit prescribed by law and part of the year we have had a waiting list. Since I became Secretary of the Navy we have increased the enlistment 5,824 men, enabling us to commission fully 20 submarines, 4 battleships, 4 destroyers, 6 gunboats, 1 battleship, 6 cruisers, and 3 monitors, increasing the total number of commissioned vessels by 41 over the number commissioned on March 1, 1913. I regard this as a great achievement, particularly since the Navy had not formerly been able to secure enough men to fill the quota. It has been secured, too, without letting down the standard for admission, which has been maintained, and even raised. For every recruit accepted five were rejected because they did not come up to our high standard. To what is the increase of our enlistments attributed? The answer is easy: To the establishment of schools, opportunity to see the world, and for promotion afforded enlisted men hitherto denied them. In these two years 13 enlisted men have been appointed as assistant paymasters, 5 as midshipmen at Annapolis, and 12 as ensigns. It is true that prior to the Wilson administration it was possible for an enlisted man to be promoted to be ensign, but in the four years of the Taft administration only 3 were promoted, while

In the 2 years of the Wilson administration 11 have qualified. How does this happen? The new policy of education and assistance was put into operation in 1913. Now every ambitious and aspiring young enlisted man is given special instruction when he desires it. Upon my recommendation Congress passed an act which gives all the positions of pay clerk to these enlisted men who can qualify: This opens 200 more places to enlisted men. It is true to-day as never before that a boy may enlist in the Navy and by the display of ability be promoted to the grade of admiral. Not only has the enlistment been increased by 5,824 new recruits, but Congress gave us the best reserve bill any nation ever put upon the statute books. While reenlistments have increased 12 per cent, desertions have decreased 17 per cent. Another incentive to enlistment is the new policy which leaves an open door to young men to retire from the Navy other than through the door of the prison; and likewise the modern methods of treating men who have violated rules.

With special emphasis, I beg you to ask any well-informed man in or out of the service as to the ability and capacity of the various officers whom I have called as advisors and to the heads of the bureaus. You will find that the man selected in each bureau is recognized, both in our own and foreign navies, as an able expert in his line.

One word more: For years there has been an unsuccessful insistence that Congress should reestablish the grades of admiral and vice admiral. I earnestly urged the last Congress to create these positions. It authorized three of them. Now American naval officers while abroad will no longer be outranked by officers of nations with insignificant navies.

I have answered your questions at some length. There are two reasons for the length of my letter:

1. Because these two years have been epoch making in the Navy, distinguished by more wise and progressive naval legislation and more practical achievement than any previous like period (thanks chiefly to a patriotic Congress); and

2. Because certain persons, ignorant of their ignorance, and for selfish partisan reasons, have busied themselves with misrepresenting the true condition of the Navy, thereby causing some good people to fear that the Navy is not now, as in the past, the strong effective right arm of the Republic. All who would learn the truth may be assured that the Navy of 1915 is larger, better equipped, and in better condition than in any previous year, and that the fleet is becoming more efficient with every passing month. "We shall take leave to be strong upon the sea in the future as in the past," declared President Wilson in his message to Congress; and in the interest of the self-respecting peace, which is the only peace worth preparing for, it is devoutly to be hoped that this strength may not be questioned by others or endangered from within. The record above outlined shows that what he promised for the Navy has been fulfilled.

Sincerely, yours,

JOSEPHUS DANIELS,
Secretary of the Navy.

The CHAIRMAN. I think this is a good place to stop, and we will adjourn until 3.15 o'clock this afternoon.

(Thereupon, at 12 o'clock m., the committee took a recess until 3.15 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee reconvened, subsequent to the taking of a recess, at 3.15 o'clock, Senator Frederick Hale (chairman) presiding.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Mr. Chairman, when the recess was taken at noon we were discussing the preparations made before we entered the war, particularly in 1915 and 1916, in answer to the several criticisms of the department in those years. I wish to either put

in the hearing or to read a statement made by Admiral Benson, Chief of Naval Operations, at the alumni banquet at the Naval Academy, which gives the whole work of Operations and much of the work of the Navy touching Operations from the time Admiral Benson came into the office in 1915.

The CHAIRMAN. I think it would be all right for that matter to be put in the record.

Secretary DANIELS. Yes.

(The matter referred to is here printed in full in the record, as follows:)

SPEECH OF REAR ADMIRAL BENSON, CHIEF OF NAVAL OPERATIONS, AT THE ALUMNI BANQUET AT THE NAVAL ACADEMY.

Mr. Toastmaster, fellow graduates, and guests, in calling upon me to answer to the toast, "The Navy," the object of the graduates' association is, I take it, to satisfy, perhaps, the expectation of the service that I give an account of my stewardship as Chief of Naval Operations.

I may preface my remarks by saying that, as time has gone on and the work of the office has developed, more distinctly outlining some of the vast problems involved, I have become more and more fully convinced that those who conceived the idea of creating by law a Chief of Naval Operations have, in the establishment of this office, "built better than they knew." In speaking on this subject I do so without any intention of making odious comparisons and without any desire to attempt to enlarge upon the importance of the work or to magnify what has been already accomplished; and yet, in order to be quite sincere and candid, I must say that upon taking up this work a little over one year ago I started practically from the ground. There were then certain elements of routine being carried out which might in a way be called the fragments of organization, but certainly nothing more. There were no data from which the chief of the office could obtain information at short notice. Only a few hours after assuming office it was necessary that a vessel of a certain class be sent from Hampton Roads to New York, and it took hours to find out just what vessels were available in that vicinity, and particularly what ones were suitable for the duty to be performed. There were no definite data at hand relating to material or personnel. In order to find out about material it was necessary to send to some other office and get information piecemeal. Information as to personnel and as to the relation between personnel and matériel could only be obtained by consulting the several bureaux' files. In fact, no information except what was given in certain regular publications was available to show the relative strength of the various nations of the world. So it was necessary literally to begin at the bottom. It is true there were some efforts at organization which had been carried forward nearly to completion.

A board for the organization of the radio service had made its report and recommended an organization for adoption, but this report had not been approved and the older unformed system in the radio service was still in vogue. Messages for radio transmission were sent out by telephone to Arlington, if received during ordinary office hours, and were given attention by the Arlington operators at their convenience. Message received at night from Arlington or elsewhere had to await the opening of the office the next morning before being decoded and delivered.

Such facts as these serve to indicate the conditions formerly existing, and are recounted simply that the service may know what has been done since the establishment of this office and what is being done now, and I want especially to emphasize them in order that the service may have a true estimate of the situation, and not be led astray or unduly influenced by what seems to have been a persistent effort during the past year or so on the part of certain persons and in certain elements of the press to try to create the impression not only in the minds of the public, but even in the minds of naval officers themselves, that nothing has been done in the department to improve conditions. And let me state here that the conditions which I have found to exist could not in any degree be laid at the door of the Secretary. He has, at all times, shown the most earnest interest and the most cordial sympathy in all the various features recommended for the development of this office, and he has given particular attention to every measure tending to increase its efficiency and the efficiency of the service in general.

The report of the board on the organization of communications, which I have already mentioned, has since been approved and is now in operation, and I do not hesitate to express the firm belief that it is the most thorough and efficient organization of its kind to be found either in the service or out of it. The office space occupied by the Chief of Naval Operations and his staff has been expanded from its formerly overcrowded condition to include nine rooms. These rooms have been cleaned, renovated, and equipped, and they are now kept in a condition that leaves little more to be desired. One of these rooms has been fitted up especially to meet the needs of the communication service. A soundproof compartment has been constructed, in which the radio operators are on constant watch day and night, and a space adjoining this compartment has been fitted for the telegraph and telephone operators. A commissioned officer day and night keeps watch to code and decode and to receive and send messages of every character without delay.

The subject of extending communications throughout the world has been given careful attention and, under the direction of Capt. Bullard, the superintendent of the Naval Radio Service, phenomenal progress has been made toward the establishment of a system by which communication within our own country may be developed and improved and, in cooperation with the systems in Pan-American countries, expanded throughout the Western Continent. The subject of radiotelephony has, through the cooperation of Capt. Bullard and his men with the telephone companies, reached a development little short of marvelous. At the instance of the superintendent of radio, the various companies interested in this question agreed to mobilize their utilities and hold a demonstration which would show to what extent their systems of communications could be used.

Some two weeks ago, when this demonstration took place, I sat in my office and, within the short space of time of less than two hours, transacted business by land, wire, and radio telephone with the commandant at the Puget Sound Navy Yard, the commanding officer at Yerba Buena, San Francisco, the commandant at the Mare Island yard, the naval station at New Orleans, the aeronautic station at Pensacola, the commandant of the Charleston Navy Yard, the commanding officer of the *New Hampshire*, then at sea off the Capes of Virginia, the commandant of the Philadelphia yard, the president of the War College at Newport, and the commandant of the Boston yard. Communication was most satisfactory and conversation between myself and the officers with whom I talked was taken down by a stenographer in my office, so that a complete record of all business transacted was available at once.

Soon after the appointment of the Chief of Naval Operations, the duties of the aid for material were transferred, by the order of the Secretary of the Navy, to the cognizance of the Chief of Naval Operations, and were placed immediately in the hands of one of his assistants. This change has served to provide positive means for the Chief of Naval Operations constantly to keep in touch with the material condition of the fleet and with the preparedness of individual vessels for active service. Work of the material bureaus is quickly coordinated under the immediate knowledge and assistance of the office of Operations.

A plan of organization of the fleet on a large scale has been worked out and is now in operation. This plan is so arranged as to provide an organization for the entire naval force of the United States, or for any portion of it in any part of the world. The various elements of the fleet have been given definite organization and flag officers have been detailed to the command of each, so that it may be justly said that the fleet is, for the first time, completely and thoroughly organized.

One of the first steps taken for the improvement of the organization of the fleet was with a view to the betterment of the submarine service, and to this end an officer of high rank has been detailed to command the submarine flotilla.

The subject of aviation also has been given especial attention and every effort has been directed toward concentrating the development of aircraft toward a definite service. Aircraft have been placed in the same category as other craft, and the various bureaus have been assigned specific duties bearing upon their construction and development and have assumed the responsibility for the work coming within the cognizance of each.

A thoroughly digested and well-developed plan of mobilization for the entire fleet in the event of war has been submitted to the department and approved. Each bureau and officer in the department has been assigned its particular

duties in connection with the plan and reports quarterly to the department, giving in detail the progress of each toward preparedness to accomplish its task in mobilization.

The General Board has deliberated on the list of available merchant vessels useful for naval purposes in case of war, and has determined the characteristics required for the special assignment of each. Guided by these requirements, the board of inspection and survey is now engaged in making a careful inspection of these merchant vessels, reporting for each the necessary alterations and equipment to fulfill the duty to which they have been assigned in the naval auxiliary service. Each merchant vessel inspected is assigned to a certain yard, where, in the event of need, it would be altered and equipped for naval service and where it would be supplied and repaired. The necessary equipment and supplies for such vessels are being sent as rapidly as possible to the yard at which these ships would be outfitted, so that in the case of emergency or war this work will be accomplished in the least possible time. Records are being kept at the department in such condition that complete data are immediately available showing just what vessels could be used, what alterations would be necessary, and, in preparation for the event, all details, even to the drawing up of contracts, are being perfected in advance.

In past years the organization of naval districts has been merely a nominal one. The plan for the organization of naval districts has within the year been taken in hand and has been worked out in every detail. Each naval district will be organized according to a common scheme, and the general plan, together with a sample organization for one district, will be furnished to each naval district for filling in all data as to number and class of vessels, the organization and duty of personnel, etc. The question of mine localities within our ports and along our shores has been studied, and the number of mines for each district and for our outlying defenses has been determined. Officers have been assigned to the various duties in the district for war service, and the distribution of vessels for the district defenses has been made, each vessel being assigned to its well-defined function in the defense.

Plans have been completed for the mobilization of the Naval Militia, and detailed instructions have been prepared providing that each step in the mobilization shall proceed without interruption and with the utmost expedition. In addition, special attention has been directed to peace-time training of the Naval Militia, and arrangements have been made for sending the Naval Militia to sea this summer on board nine of the older battleships not attached to the active fleet. Arrangements have also been made for a cruise with citizen volunteers for training, on the general principle of the Plattsburg encampments conducted by the Army, and during four weeks in the latter part of August and the first half of September these volunteers will cruise at sea and will exercise during the last week with motor boats in conjunction with the battleships, destroyers, and submarines, working out such problems as would arise in time of war.

The organization of the ships in reserve has been given special attention. Not only have the complements been increased, but special attention has been paid to the ratings of the men on board, so that the important stations will at all times have a sufficient number of well-trained men properly to break in the additional personnel that would be required to fill the complements. The ships are kept in material readiness, so that it will be necessary only to fill the complements in order that they may be ready to join the active fleet. A system of periodical inspection of every ship belonging to the Navy has been established, and its good results are already apparent.

Regulations have been drawn up by a joint board for the proper control of the Coast Guard, which automatically comes under the Navy in time of war.

In response to the request of the department, the General Board has been indefatigable in making out the plans and selecting the locations for advanced bases and in determining the location of submarine bases and working out the detailed plans for their development.

The annual period of overhaul for vessels has been discontinued. The old system under which for three months, and often for a longer period, in every fifteen vessels of the fleet lay at a navy yard unreadiness in material respects and demoralized in personnel has been done away. These demoralizing influences, due to stagnation at navy yards, were well known to every officer, and it will be appreciated that they must have had a very bad effect upon the Navy. It was only natural, under the old system of lengthy overhauls, that spare parts

would be used up and important work postponed that could have and should have been done at once in order to keep the ships in first-class condition. Such prolonged periods of inactivity at a repair yard during which the unavoidable disorder incident to the pressure of large numbers of workmen on board, and sometimes with the added discomfort of climate, could not help but have a very serious and detrimental influence upon the ships' personnel, besides immensely increasing the expense of maintaining the fleet.

At the present time practically every vessel of the fleet is ready to perform its designed duty except possibly the *Georgia*, which is to have new boilers installed, and the *Connecticut*, which is having extended boiler work done, one or two of the earlier submarines now being utilized for experimental purposes, and some of the later destroyers.

The equipment of my office has been greatly improved and added to. Data on all essential subjects have been collected and kept near at hand and are constantly being added to. Because of this improvement I was able when called before the House Naval Committee during the present session to give full and exact information of our own and the other principal navies of the world, and was able to show not only in figures but graphically to the eye the number and type of ships of each of the principal navies of the world. Photographic silhouettes of the ships of the several navies were made and pinned upon sheets in groups according to type, so that a clear idea of the relative strength of the various fleets could be obtained at a glance. These sheets will eventually be placed upon the walls of one of the offices.

An annual program of operations of the fleet has been worked out and adopted and has so far been followed without difficulty. There is no reason to believe that it can not be successfully followed as a standard yearly program. In my office there are kept data and records from which at a moment's notice one can determine the whereabouts of every vessel of the service, and within a very few minutes the position of any merchant vessel can be located. On the walls of the office general charts and charts of places of special interest throughout the world are kept on chart rolls in the most convenient manner for easy reference. In another office there is a roll on which are maps showing the interior subdivisions of various countries and giving almost every kind of desirable information connected with the naval service.

Cooperation between the various bureaus and offices of the department with the office of the Chief of Naval Operations has been most cordial and complete and the practical result has been all that could be desired. One day in each week the Secretary holds in his office a council composed of the chiefs of bureaus, heads of the various offices, the Assistant Secretary of the Navy, and the Chief of Naval Operations. At these meetings various questions of importance affecting the whole service are considered, the progress of work on ships discussed, new enterprises gone into, and a decision arrived at under the most favorable circumstances for wise action. Through these councils all are kept informed of important work, and a hearty cooperation followed by satisfactory execution of the Secretary's decisions is the result. In addition to this weekly council, the Secretary of the Navy, through his own efforts, has organized a naval advisory council, known as the Naval Consulting Board, which, with his approval and sympathy, is collecting vast stores of information regarding the industrial resources of the country, and is perfecting a plan for the utilization of these industries for the support and assistance of the Army and Navy for the defense of the country in time of need.

A thoughtful consideration of the work that has been accomplished will show that all is being done now that could reasonably be expected from a so-called general staff. In my opinion, the organization that exists in the department, and that is now in successful operation, is accomplishing in a purely American and businesslike manner all that could possibly be expected from the creation of a general staff, and is, I believe, doing this in a much more satisfactory way. It is folly to talk of or to advocate clothing a Chief of Staff or a Chief of Naval Operations with authority independent of the head of the Navy. Such independent authority would lead on to confusion and would do great harm.

The fact that the bureaus as now constituted represent the different sections of the general staff, that they have their special appropriations and are responsible for the proper expenditure of moneys under their control, and of the proper development and operation of the various parts of the Naval Establishment under their cognizance, gives, in my opinion, to the organization of the Navy Department a distinctive strength and an added efficiency not possible under a so-called general staff organization. The present organization should

be made stable and permanent, and if legislation is necessary to make this absolutely sure, then there can be no doubt that such legislation should be enacted, but in considering any legislation care should be taken that too great restriction is not imposed upon the freedom of action of the head of the Navy.

I desire to add that all the results I have related have been accomplished with the Secretary's assistance. No new legislation has been necessary, and all that has been required of me has been to present the need and desirability of changes and improvements in order to receive the Secretary's sympathetic attention. He does not blindly yield to suggestions, but gives them the most earnest and thoughtful consideration. As the Secretary has often reiterated, his only requirement is that the proposed change shall add to the efficiency of the Navy in order that both the Navy's personnel and material may be capable of rendering and may be made to render 100 per cent efficiency. This policy of 100 per cent efficient service has been the basic creed of the office of operations, and when we shall have fulfilled that policy every unit of the fleet will at all times be ready to perform its functions, whatever the occasion that may require its service.

Secretary DANIELS. Continuing on this same line, the *Lusitania* was sunk on May 9, 1917, Admiral Benson became Chief of Naval Operations on May 11, 1915, and on May 15, 1915, there was a review of the fleet at New York by the President of the United States, one of the most notable reviews of the fleet in the history of the Navy. On that occasion Admiral Dewey, the Admiral of the Navy and the chairman of the General Board, was unable to be present, much to the regret of the President and all of the officers of the Navy and of all of the men in the fleet, who had hoped that he would honor the occasion and permit them to honor him; and he wrote the following letter, which I read at a dinner in New York, to the fleet [reading]:

THE ADMIRAL OF THE NAVY,
Washington, May 14, 1915.

MY DEAR MR. SECRETARY: I trust that you will be good enough to convey to the mayor and citizens of New York City my sincere regret at my inability to be present at the ceremonies incident to the review of the Atlantic Fleet and my cordial appreciation of the hospitality they have shown in the reception of the officers and men.

On this occasion I recall with the utmost pleasure the magnificent welcome I received in their great city upon my return from Manila on board the *Olympia* in September, 1899, and it is a source of deep satisfaction to know that the interest of our citizens in their great Navy has not diminished in the 16 years that have elapsed since that time.

The people of New York have just cause for pride in the fleet now assembled in their harbor. Not only is it composed of the finest and most efficient warships that we have ever had, but it is not excelled, except in size, by the fleet of any nation in the world. Our ships and guns are as good as any in the world; our officers are as good as any; and our enlisted men are superior in training, education, physical development, and devotion to duty to those of any other navy. (As president of the General Board for the last 15 years, I can say with absolute confidence that the efficiency of the fleet has steadily progressed, and has never been so high as it is to-day.)

However, we need more ships, more officers, and more men, and should continue the wise policy of increasing the size of our Navy, which must ever remain our first and best line of defense. This defense unless adequate is impotent; and adequacy is not reached until the Navy is strong enough to meet on equal terms the navy of the strongest probable adversary.

Very sincerely, yours,

GEORGE DEWEY.

HON. JOSEPHUS DANIELS,
Secretary of the Navy, Washington, D. C.

There was no man in the world, certainly no man in America, so well qualified as Admiral Dewey to express an opinion upon the efficiency of the Navy at that time. He had been the chairman of the General Board almost from the time he returned to America after the

victory at Manila, and until the day of his death there was no man in the Navy who was so keenly alive and who was so well informed about all naval activities as Admiral Dewey; and when he said "I can say with absolute confidence that the efficiency of the fleet has steadily progressed and has never been so high as it is to-day" that statement stands in perfect contradiction and refutation of any other statements to the contrary.

On May 15, four days after Admiral Benson became Chief of Naval Operations and a week after the sinking of the *Lusitania*, the President reviewed the Atlantic Fleet at New York, and in an address at a dinner given the officers that night I set forth clearly our purpose and intention to create a greater Navy, saying:

Our Navy is good; it is not good enough. With your help, as long as I am Secretary of the Navy we will all try to make it better. The Navy is strong; it is not strong enough. With the help of the whole American people, with the help of Congress and an administration thoroughly committed to the policy of "taking leave to be strong upon the seas," we will make it stronger. This review is not the end of a century's labors. We do not here exhibit our completed work. Indeed, we have here only that portion of the Atlantic Fleet which has been engaged in active maneuvers since February.

Rather, we here begin a new era, supported by the Chief Executive and by an enlightened and progressive Congress, which gave evidence of its faith in a strong Navy by the passage of the best Navy bill in the history of your country. That bill carried the largest appropriations ever voted for new construction. We are entering upon an era of progress such as the Navy has never known before, whose keynote will be onward and whose watchword will be forward—an era marked by the lifting of our Navy out of politics and by the subordination of all things afloat or ashore to the efficiency of the fleet in order that by our very strength we may be able to demand the right to live at peace with all the world.

In July, 1915, a month after the sinking of the *Lusitania*, I directed the General Board to express its opinion as to what the Navy must be in the future in order to stand upon an equality with the most efficient and most practically serviceable and to submit "a program * * * formulated in the most definite terms * * * planned for a consistent and progressive development of this great defensive arm of the Nation."

On July 30 the General Board reported as follows:

In compliance with the oral order of the Secretary of the Navy to express its opinion at the earliest practicable date as to a policy which should govern the development of the Navy and a building program, the General Board reports as follows:

I submit that report.

(The report referred to, pages 73 to 78, inclusive, of the Annual Report of the Navy Department for the fiscal year 1915, submitted by Secretary Daniels, is here printed in full in the record, as follows:)

[Appendix A.]

REPORT OF THE GENERAL BOARD.

DEPARTMENT OF THE NAVY, GENERAL BOARD,
Washington, November 9, 1915.

To: Secretary of the Navy.

Subject: Report in accordance with article 167R, paragraph 3.

In accordance with Navy Regulations, article 167R, paragraph 3, the General Board submits the following report. It does not include in this report a building program for the fiscal year of 1917 for reasons that appear in succeeding paragraphs.

2. In July last the General Board was called upon to express its opinion to the department "as to what the Navy must be in the future in order to stand upon an equality with the most efficient and most practically serviceable"; and to submit "a program * * * formulated in the most definite terms * * * planned for a consistent and progressive development of this great defensive arm of the Nation."

3. Accordingly, under date of July 30 (G. B., No. 420-2), the General Board reported as follows:

"In compliance with the oral order of the Secretary of the Navy to express its opinion at the earliest practicable date as to a policy which should govern the development of the Navy and a building program, the General Board reports as follows:

" POLICY.

"The Navy of the United States should ultimately be equal to the most powerful maintained by any other nation of the world. It should be gradually increased to this point by such a rate of development year by year, as may be permitted by the facilities of the country, but the limit above defined should be attained not later than 1925."

At the same time the General Board submitted a building program for the fiscal year 1917 only, which in its opinion would be adequate to the requirements of the Nation if continued in subsequent years on a similar scale.

4. In a letter dated October 7, 1915, the Secretary of the Navy directed the General Board to prepare "a building program for the Navy that will continue over a period of five years, with an expenditure of about \$100,000,000 each year for five years, on new construction only." This the General Board did, under date of October 12, 1915 (G. B., 420-2), with special consideration as to the first year's schedule.

5. The General Board is convinced of the great advantages, both military and economic, which will follow upon the acceptance of the general principle of a building program extending over a period of years. This is the first time that any administration has decided to present to Congress a continuing shipbuilding program. On one hand a continuing program enables the Navy Department to plan with greater foresight than is possible with an annual noncontinuing program. The military end to be reached at the close of such a period is thus made clearly evident by the Navy Department to Congress and to the country. On the other hand a degree of financial security is offered the industries of the country by the fore-knowledge which they thus obtain as to probable naval expenditures. This will encourage them to invest money in enlarging their plants for naval shipbuilding and all its allied industries. At the same time the strong probability of continued work throughout the period of the program will tend to reduce contract prices.

6. The General Board believes that the course of the present war in Europe affords convincing reasons for modifying the opinion which it has expressed for the past 11 years as to the proper size of the Navy. A navy in firm control of the seas from the outbreak of the war is the prime essential to the defense of a country situated as is the United States, bordering upon two great oceans. A Navy strong enough only to defend our coast from actual invasion will not suffice. Defense from invasion is not the only function of the Navy. It must protect our sea-borne commerce and drive that of the enemy from the sea. The best way to accomplish all these objects is to find and defeat the hostile fleet or any of its detachments at a distance from our coast sufficiently great to prevent interruption of our normal course of national life. The current war has shown that a Navy of the size recommended by this board in previous years can no longer be considered as adequate to the defensive needs of the United States. Our present Navy is not sufficient to give due weight to the diplomatic remonstrances of the United States in peace nor to enforce its policies in war.

LESSONS OF THE CURRENT WAR.

7. Considering a building program for the Navy Department the General Board has noted the progress of the war abroad in order to profit by its lessons in making recommendations to the department as to the type and relative numbers of ships to be laid down.

8. The superiority of the naval forces of the entente allies has been so great as to remain without serious challenge. By this great superiority they have securely held the objective of all naval effort; namely, the control and utilization of ocean communication on behalf of their own trade and commerce and military transportation, while denying such utilization to their enemies.

9. Owing to the disparity of the opposing naval forces, the main naval strength of the Central Powers has not yet undertaken the task of meeting that of the enemy, and the naval events of the war have been confined to a double series of minor incidents. In the first series fall the world-wide attacks upon the commerce of the entente allies by a small number of hostile raiders, which have finally been destroyed or driven from the seas by systematic pursuit.

10. In the second series falls the work of the submarines. The deeds of the submarines have been so spectacular that in default of engagements between the main fleets undue weight has been attached to them. It is desirable to arrive at a true estimate of their importance, which, although undeniable, is less than the public believes. The North Seas, across which the combatants face each other, is not of great extent, and its comparatively limited area offers a field not too large for the submarine to maneuver in any part of it.

11. Consequently, at the beginning of the war, in the North Sea and elsewhere about Great Britain, and later in the Mediterranean, where conditions were not entirely dissimilar, the German submarines obtained some striking successes against the Allies before the latter, who held the general control of the sea, discovered the proper method of guarding against attack by their invisible enemy. Both in the North Sea and in the Mediterranean the submarine upon its first appearance scored heavily. Its high score was obtained by surprise; it was not due to inherent combatant superiority.

12. After 6 months of war the submarine form of attack drew renewed attention by its direction against hostile commerce. American public attention was redoubled toward this side of the war owing to the humanitarian interests involved, and to the diplomatic questions which were raised thereby. To hastily formed public opinion, it seemed that submarines were accomplishing great military results because little else of importance occurred in the maritime war to attract public attention. Yet at the present time, when the Allies have learned in great measure how to protect their commerce, as they learned a few months previously to protect their navies from the submarine menace, it is apparent that the submarine is not an instrument fitted to dominate naval warfare. It appears from British returns that the first 8 months of this submarine warfare against British commerce resulted in the loss of 183 merchant vessels and 175 trawlers. The total British merchant tonnage lost was not greatly in excess of one-half a million; the total loss under all flags was about 650,000 tons. In the same time the total arrivals and departures in British ports averaged from 1,350 to 1,400 per week, or nearly 50,000 in all. Allied commerce is continuing under a loss in no way vital. The submarine is a most useful auxiliary, whose importance will no doubt increase, but at present there is no evidence that it will become supreme.

13. As to types of ships, the conclusion to be drawn so far from the history of the current war is that the battleship is still the principal reliance of navies, as it has been in the past.

NEED OF FAST SHIPS.

14. The United States Navy has hitherto been somewhat ill balanced as to the different types of ships represented in it, as battleships need auxiliaries of every sort, both combatant and administrative, for their support in battle and in being. These auxiliaries have not been authorized in proper proportion.

15. With its two extensive coast lines the United States offers great opportunities to an enemy to descend by surprise upon its shores. To meet such attack the tendency of the country is to place too much reliance upon localized defenses such as fortifications, mines, and submarines. These are essential, but these alone can not accomplish and defeat him before he reaches the neighborhood of the coasts. For this purpose the country must rely upon the seagoing fleet. To forestall the attack of the enemy our main fighting force must be concentrated at a strategic center, ready to move and defeat the hostile main body before it has entered an area where its presence is seriously dangerous to this country's interests. When concentrated, the main fleet can expect to

move in time to forestall the enemy's intentions only if it has an adequate information service to provide early and continuous intelligence of the enemy's movements. An efficient scouting force composed of battle cruisers and scouts must be thrown far beyond the main body to assure this indispensable service of information, which can not otherwise be secured. In default of information the main fleet can only act blindly.

THE USE TO BE MADE OF SCOUTS.

16. In the general development of our naval strength, the time has now come to provide for battle cruisers and scouts. The main duty of both types is to get information. For this purpose numbers are necessary, and to provide these numbers without undue cost we have recourse to the scout type, wherein the size is as small as will afford adequate speed and radius for the accomplishment of the work. A scout in the pursuance of her duties should rather avoid than seek battle. Yet she must seek and maintain contact with the enemy, and, therefore, can not dispense with a small armament for her protection when unavoidably forced into an engagement by ships which she can not evade.

THE USE TO BE MADE OF BATTLE CRUISERS.

17. The battle cruiser, also chiefly meant to secure information, nevertheless has a somewhat different rôle from that of the scout. In addition to high speed and endurance the battle cruiser has high offensive powers, so that if necessary she may fight for information and break through a battle screen. Another important duty of the battle cruiser is to support the protective screen of lighter craft about her own fleet, which is formed to detect the approach of the enemy and guard the main body from surprise.

18. The battle cruiser can do all that the scout can do and more, but her greater powers entail greater cost. If the financial question were not involved, all ships built to seek information would be of the battle-cruiser type.

19. By her size, speed, and armament, the battle cruiser is well able to perform other combatant services than her primary one of offering security and information to the main body of battleships. She may be used to protect national sea routes, both military and commercial, and attack those of the enemy. As high speed is particularly important in torpedo warfare, she may aid the battleships in a general action by taking up a favorable torpedo position where her own heavy guns will also be effective.

20. Precedent to a general naval action we may normally expect the seas to be swept by the lighter and faster craft of both belligerents seeking to damage hostile trade, to discover the intentions of the enemy and to draw him into eccentric and unwise movements. Such has been the principal employment of battle cruisers in the present war. They have been in contact with the enemy and their performances have attracted much public attention, but as yet the main forces of battleships have not been engaged and the control of the sea remains in the hands of the powers having the superior battle fleet.

21. As in the case of submarines, so in the case of battle cruisers, the particular course of the present war does not justify the prevalent exaggerated idea of their importance.

NEED OF FLEET AUXILIARIES.

22. The General Board has little to add to its report of last year concerning other types of ships recommended. The General Board has thought necessary to recommend a reasonable increase of fleet auxiliaries which are necessary to the movements and maintenance of the fleet.

PERSONNEL.

23. The General Board recommends that legislation be sought for the fiscal year 1917 which will authorize an active personnel, officers and enlisted force, capable of—

(a) Keeping in full commission all battleships under 15 years of age from date of authorization; all destroyers and submarines under 12 years from date of authorization, half of the cruisers, all gunboats, and all necessary auxiliaries that go with the active fleet.

(b) Providing partial complements for all other ships in the Navy that would be placed in active use in time of war.

(c) Providing the necessary personnel for training and for shore stations.

ENLISTED MEN—NAVY.

24. The partial crews mentioned under (b) should be 50 per cent of the full complement for battleships, cruisers, destroyers, and submarines. They should be permanent in order that they may be kept thoroughly trained and the ships maintained as efficient units of the fleet, ready for immediate service in case of emergency by simply filling the complements. For other ships the partial crews should be adequate for their upkeep.

25. This does not provide sufficient personnel for war. With full war complements for all ships of the Navy ready for service in 1917 and a minimum number required at shore stations 74,700 men will be needed. In addition, upon the outbreak of war the personnel of the Navy must be greatly expanded to provide for aviation, coast defense districts, patrol draft, and other auxiliary duties of every sort, as well as for a reserve of men under training to replace casualties. The Coast Guard, Naval Militia, and Naval Reserve will be far from sufficient to meet these demands. The Navy is the first line of defense of the country. For peace requirements in the fiscal year 1917 the General Board regards as inadequate any smaller force than 67,000 men in the regular Navy.

MARINE CORPS.

26. The Marine Corps should also be increased. There are now new demands from many points to provide guards at magazines, powder factories, and other important property. To meet them it has been necessary to interfere seriously with the maintenance of detachments of proper strength on board ship and with the continuance of the training of the advance-base force. These new demands would be accentuated if the United States were itself at war. The Navy Department has approved the recommendation of the General Board that the strength of the Marine Corps should be 20 per cent of that of the Navy. The General Board recommends that the authorized strength of the enlisted men of the Marine Corps for the fiscal year 1917 be 13,400 men.

OFFICERS.

27. At the present time the expansion of the Navy calls for an increase in the number of officers and revision of their distribution in the various grades.

28. In recommending an increase in the number of officers of the Navy the General Board has had in view—

(a) Adequate complements for all ships included under paragraph 23.

(b) A sufficient number to fill the necessary stations on shore.

To accomplish this the General Board finds that the total number of commissioned line officers, exclusive of the flag officers, should number 2,700 for the fiscal year 1917. The General Board recommends that Congress be requested to authorize this number, to be reached through the Naval Academy, as speedily as possible.

29. In every grade, the numbers in the grade should correspond with the number of positions to be filled whose responsibilities are in accordance with the rank. A very considerable increase is needed in the number of lieutenants and lieutenant commanders; less proportional increase is needed in the higher grades. As the Navy increases the duties appropriate to each grade will increase in about the same ratio as the whole strength of the Navy.

30. The various ranks of the Navy are established to correspond broadly to various classes of duty whose importance and responsibilities vary. Increased responsibilities are assigned to increased rank. At present the numbers in all the grades except those of ensign and lieutenant (junior grade) are fixed by law. The present increase in numbers in the body of officers is entirely in those two grades.

31. The General Board invites particular attention to the serious congestion in the grade of lieutenant (junior grade), which demands a remedy at the earliest practicable moment. The present condition is a serious detriment to the efficiency of the service, and it is rapidly growing worse.

32. The General Board limits the part of its report regarding the numbers in grade to an earnest recommendation that those numbers be established by Congress as a percentage of the entire number of officers. At the present time the grades have a strength established by fixed numbers (except as noted in the grades of ensign and lieutenant junior grade) without reference to the total number of officers. This method has no flexibility; in order to keep the numbers

in grades properly proportioned to the needs of the service it is necessary to revise them periodically. This readjustment, while it is made from time to time by Congress, has not been done frequently enough to meet the needs of the service. The establishment of fixed percentages in grades would automatically provide for readjustment, while at the same time Congress would keep the whole matter under its control, by establishing the total number of officers instead of the numbers in each of the several grades.

33. The officers of the Marine Corps, line and staff, should number 4 per cent of the total number of enlisted men of that corps. They should be recruited from the graduates of the Naval Academy.

34. The numbers of officers of the Medical and Pay Corps should be increased in accordance with the requirements of the service, as stated in paragraph 28; those of the other staff corps should be increased in accordance with the requirements of their special duties. Entries to the Pay Corps should be from graduates of the Naval Academy.

35. The laws of promotion should be so adjusted as to provide that officers of the rank of ensign in the line and those of corresponding rank in the Marine Corps, Pay Corps, and Civil Engineer Corps, shall have promotion to the next higher grade after the same length of service in the lower grade, and the General Board so recommends.

36. In concluding its remarks upon the personnel, the General Board invites attention to the fact that the repeal of the feature of the law of 1899 providing for the forces retirement of line officers operates to cause a stagnation in promotion. It recommends that the department seek from Congress remedial measures to insure a proper flow of promotion in line, staff, and Marine Corps, as otherwise the service will suffer grave loss of efficiency.

GEORGE DEWEY.

Secretary DANIELS. Later, on October 7, 1915, I directed the General Board to prepare a five-year program, calling for the best ships that would strengthen our Navy and would, as rapidly as possible, make it incomparably the most adequate Navy in the world.

On October 12 I received the General Board's report with their recommendations.

On October 15 the General Board presented estimates to Congress through the Treasury Department, as required by law, for the largest building program ever proposed in the history of the Nation, and the greatest ever proposed or enacted in any one single bill by any nation in the world. In my annual report, dated December 1, 1915, I presented to the President—which he transmitted to Congress—recommendations for this five-year program, which was afterwards reduced to three years, to make the American Navy ready for any eventuality.

(The document referred to presented by Secretary Daniels is here printed in the record in full as follows:)

ANNUAL REPORT OF THE SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
December 1, 1915.

Five-year building program.—In presenting this report I feel it my duty to urge above everything else the necessity of the adoption by Congress of a continuing program of construction. After much reflection, conference with able experts in the Navy and patriotic men in the civil walks of life, such a program has been evolved and is submitted herewith. For the first time in the report of a Secretary of the Navy a plan is submitted which covers not only the necessities of the immediate future, but has been extended to cover a period of five years. Planning to-day what we will begin to-morrow in order to have it completed in the future is the essence of all true preparedness. It is believed that steady and constructive building plans that look ahead and permit each year's construction to fit into the general plan for our Navy as the piece of mosaic fits into the whole design, and which includes all we have learned from the struggle in Europe, as well as the knowledge of our own needs acquired in war games and

maneuvers, is the surest way to raise the standard of naval efficiency. Nothing is to be gained by the expenditure of millions of dollars in the haste of threatened war or in the panic of actual war. Less is to be gained for the proper strengthening of the Navy by sudden fluctuations and unexpected changes in policy. If a vote had been taken a few months ago as to the types of ships to be constructed, a large majority of the people would doubtless have voted to go into the building of submarines on a scale so large as to leave little money for other fighting craft. Recently in navy circles the pendulum may be said to have swung away from an overlarge undersea program with emphasis again placed upon the dreadnaught. In addition, the need for battle cruisers seems imperative. The wise policy, approved by the ablest experts and enforced by the lessons of the war across the ocean, is toward a well-proportioned Navy, the units being composed of the types which our fleet would have to meet and overcome in case of war.

A continuing program, looking ahead as well as profiting from experience, ought to give us a better proportioned Navy than under the present and past single-year method. The single-year method denied the country the obvious advantage which a well-digested continuous program would insure. It is more costly to build without reference to future years than if a plan is mapped out and adopted for a period long enough to secure the benefit that should come from longer contracts. Experience has taught us that in any year three ships of any type can be built at less cost per ship than if the contract is made for only one in a given year. Wise experience of public funds, therefore, as well as increased efficiency, will be promoted by the adoption of a continuing program.

My first thought was to present a plan for a 10-year period, but the argument against determining upon a program for a longer term than five years seemed conclusive, for in this day of invention and development it would hardly be safe to fix upon certain types of ships for a long term of years. We know what other countries have built and are building, and we know the needs which constant practice and maneuvers of the past 12 months by our own fleet have taught us. Therefore the best expert judgment approves the number and types of ships which are recommended. If there are those who believe even within these five years changes in types of ships or in equipment or armament will be so marked as to make the carrying out of the recommendations deny the benefit of new discoveries, the complete answer is this: Congress is asked to make appropriations only for a year at a time, in accordance with custom. Any succeeding Congress will make such alterations as experience may prove desirable, without a reduction of the strength of the fleet to be constructed upon the plan proposed. When a continuous policy was embraced in a bill presented to the national assembly of one of the leading powers nearly 20 years ago it was objected that by accepting it the legislative branch would be depriving itself of a considerable portion of that power of the purse which constitutes the only effective bulwark of its rights. The assembly did not abate one jot or tittle of its rights, and that body two years later, upon the recommendation of the naval administration, again increased its fleet, adding submarines and other units which naval experts had found necessary to a well-proportioned navy. The strength of the continuing program proposed for our country would depend upon its development in such a way as to prove its value.

If it be argued that one session of Congress or one Congress should not attempt to bind its successor, it is only necessary to point out that every Congress fixes a program to last more than a single Congress. When the Sixty-third Congress, which voted more money to naval increase than any of its predecessors, authorized the construction of 5 dreadnaughts, 12 destroyers, and 26 submarines—3 to be larger than any nation had constructed—it made appropriations only for about one-third of the amount it will cost to build the craft authorized. The Sixty-fourth Congress will make appropriations to continue their construction. Such binding of one Congress by another (if it can be called binding) is necessary in the building of modern warships, for they are so large and costly that it requires 34 months to build a \$15,000,000 dreadnaught and two years to build destroyers and submarines. This seems too long a time, and it is too long; but formerly it took 41 months to build a \$5,000,000 battleship. Every effort is being made to reduce the time necessary to complete a naval craft, and the time has been reduced upon some awards. This policy will be continued wherever feasible, always remembering that hurried construction is never conducive to the best and most thor-

ough workmanship. Bids opened November 17, however, do not give hope for the reduction desired.

In 1903 the General Board of the Navy, in its confidential report to the Secretary of the Navy, recommended a continuous building program, but no Secretary of the Navy urged its adoption. Indeed, up to December, 1913, when I printed the full report of the General Board as an appendix to the Secretary's report, neither the Members of Congress nor the public had access to the recommendations of that board of naval statesmen. Their report was a sealed book. Secretaries had, indeed, in the executive sessions of the Naval Affairs Committee, given some of the figures as to the number and types of ships approved by the General Board, but such information was deemed confidential. It appealed to me as a sound proposition to give the widest publicity to the formal report of this board, so that the country might have the opinion of naval experts, as well as the recommendations of the Secretary and the administration. To be sure, if the official estimates made to Congress did not harmonize with the recommendations of the General Board, the difference opened the way for a discussion as to which policy was the wiser. But discussion makes for knowledge and wise decision. The General Board is influenced by its professional views, while an administration takes into consideration the whole national policy, and does not overlook the question of national revenues. The two reports of the General Board will be found in Appendix A and Appendix B.

It was in 1903 that the General Board formulated a policy "having in view an estimate and forecast of the future as to what would be the development of foreign countries with which conflict might be probable and what our own development should be to insure peace." At that time the General Board recommended "the adoption of a continuous naval policy to be pursued by Congress in making appropriations whereby the strength of the fleet shall be increased regularly." The basis of the fleet then recommended was 48 battleships by 1919 and lesser units and auxiliaries were recommended in the proportions believed to be best to complete a fighting fleet. It contemplated two battleships each year. When their report for a continuing program was submitted 10 battleships were completed and 14 had already been authorized, and a two-battleship program would, by 1919, have secured the authorization of 24 more, all of which would have been completed by 1919. As against the five dreadnaughts authorized by the last Congress, the Secretary of the Navy, in 1903, the very first year after the General Board's recommendation, asked for only one more battleship, and that session authorized only one. Later on, in March, 1913, no doubt having in mind the failure of naval authorities and Congress to adopt a continuous policy, the General Board made this statement:

There is not now, and there has never been in any true sense, a governmental or departmental naval policy. The fleet as it exists is the growth of an inadequately expressed public opinion; and the growth has followed the law of expediency to meet temporary emergencies, and has had little or no relation to the true meaning of naval power, or to the Nation's need therefor for the preservation of peace and for the support and advancement of our national policies.

The Sixty-third Congress took long strides toward formulating a better naval policy, enacting long-desired legislation of the most serviceable character which will increase the efficiency and strength of the fleet. It opened new doors for promotion of officers and men. It remains for the Sixty-fourth Congress to add to that record the adoption of a continuous five-year program that will make the Navy every year more worthy of this great Republic. The objection may be made to such a continuous program that advantage would not be taken of all progress and experience in the period fixed upon. The General Board, when in 1903 suggested a program that would give us 48 battleships by 1919, answered that objection in this language:

While necessarily desirable and possible to keep in view the general outline of a building policy that should be systematically pursued, no one can forecast the development in the art of shipbuilding at any one time to lay down the characteristics of vessels to be laid down in a given time to bring the fleet up to its maximum strength. It is necessary to improve in design from year to year. Vessels laid down from year to year may differ in minor respects, but not in respect to power.

In view of the varying programs of the past, imposing upon us to-day the duty of making large expenditures to strengthen the Navy to make good past deficiencies, I submit to you, for transmission to Congress, a definite program of construction which not merely recommends a certain number of battleships

to be ready at a certain date, but specifies year by year the number to be begun and the amounts to be expended. The following is the program recommended, and I hope Congress will indorse it by so large a vote of its Members as to make certain its continuance by Congress to come:

	1917	1918	1919	1920	1921
Dreadnaughts.....	(2) \$15,500,000	(2) \$26,580,000	(2) \$37,600,000	(2) \$37,600,000	(2) \$37,600,000
Battle cruisers.....	(2) 11,158,000	11,921,000	(2) 17,500,000	(2) 17,118,500	(1) 23,460,500
Scout cruisers.....	(3) 6,900,000	(1) 6,350,000	(2) 10,000,000	(2) 8,650,000	(2) 10,000,000
Destroyers.....	(15) 10,500,000	(10) 16,900,000	(5) 10,000,000	(10) 10,300,000	(10) 13,600,000
Fleet submarines.....	(5) 4,425,000	(4) 5,577,300	(2) 5,437,500	(2) 4,215,000	(2) 3,400,000
Coast submarines.....	(25) 5,750,000	(15) 13,950,000	(15) 9,750,000	(15) 9,750,000	(15) 9,750,000
Gunboats.....	(2) 760,000	(1) 1,140,000	380,000	.....	(1) 380,000
Hospital ships.....	(1) 1,250,000	1,200,000	.....	(1) 790,587	(1) 1,766,000
Ammunition ships.....	.....	.....	.....	(1) 700,000	655,250
Fuel-oil ships.....	700,000	(1) 655,250	.....	.....	(1) 1,175,000
Repair ship.....	.....	.....	.....	.....	.....
Total.....	57,003,000	84,273,750	90,767,500	89,133,087	101,786,750
For completion of ships previously authorized.....	28,369,127	20,149,000	.....	.....	.....
Total.....	85,372,127	104,422,750	90,767,500	89,133,087	101,786,750
Aviation.....	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Reserve of munitions.....	8,000,000	5,000,000	5,000,000	5,000,000	2,000,000
Grand total..	95,372,127	110,422,750	96,767,500	95,133,087	104,786,750

Grand total for five years, \$502,482,214.

If this program is carried out, accepting the General Board estimates of survival for present vessels, the Navy would be composed of the following vessels, built or building, in 1921:

Battleships, first line.....	27
Battle cruisers.....	6
Battleships, second line.....	25
Armored cruisers.....	10
Scout cruisers.....	13
Cruisers, first class.....	5
Cruisers, second class.....	3
Cruisers, third class.....	10
Destroyers.....	108
Fleet submarines.....	18
Coast submarines.....	157
Monitors.....	6
Gunboats.....	20
Supply ships.....	4
Fuel ships.....	15
Transports.....	4
Tenders to torpedo vessels.....	3
Special types.....	8
Ammunition ships.....	2

In planning this program, involving for a number of years a greatly increased annual expenditure upon new construction, it became necessary to consider carefully its annual distribution.

The General Board was called upon for advice in this connection, and the department has accepted its recommendations as regards numbers of capital ships. As regards their distribution over a five-year period, it was concluded, in view of all the circumstances, that it would be best to make this as nearly uniform as might be. This course has obvious practical advantages, particularly in view of the present congested condition of the shipbuilding industry in this country. Moreover, since the maximum rate of expenditure upon the capital ships, which take some years to build in any case, will not be reached immediately, it enables us to concentrate more at first upon submarines and other quickly built craft, so that we will get earlier returns for our expenditure in the shape of completed vessels.

My recommendation of a five-year program embraces the same number as proposed by the General Board in the distribution it made in the five-year program of dreadnaughts, battle cruisers, scouts, and destroyers. I recommend 15 fleet submarines where the General Board recommends 9, and I recommend 85 coast submarines as against 58 recommended by the General Board. For additional reserve ammunition my recommendation is \$25,000,000, whereas the General Board recommends \$11,000,000. They recommend something more for other craft. My total for the five years is \$502,482,214. The General Board's total is \$499,876,000, a very slight difference for the five years, though the board's recommendation for the first year is much larger than the department's estimate.

As regards the battleships included in the program, the characteristics recommended for them by the General Board involved a very material increase in displacement over our previous battleships, which are themselves larger than those built or building by any other nation. While allowing in the program the estimated cost of these enormous vessels, the department has not finally approved them. As a definite determination of their exact characteristics is not necessary at this time and as to-morrow's developments abroad may require modifications of their characteristics, the department feels it necessary to give this question most careful investigation and consideration.

It will be observed that the proposed program for new construction includes a substantial number of battle cruisers and scouts. The former type has not hitherto been included in the estimates of the department or authorized by Congress. Of the latter, we have now upon the Navy list but three representatives, authorized April 27, 1904, and now out of date. It is believed that in the light of recent events it is necessary to expand the program to include these types of vessels if the Navy is to be prepared to meet contingencies certain to confront it in case of war.

In the early months of the present war the world witnessed a demonstration of what could be accomplished in the direction of commerce destruction by a limited number of small vessels operating in the open and deprived of shore bases for refueling, refitting, and refuge. The small, fast vessels of the German Navy thus engaged were able to overhaul merchantmen with ease, and at the same time to avoid for a considerable period the numerous vessels endeavoring to capture or destroy them. Three of the German cruisers eventually formed a junction with the *Scharnhorst* and *Gneisenau*, of the armored cruiser class, which may be considered the predecessor of the battle cruiser of to-day. An encounter off Coronel, Chile, November 1, 1914, between this small squadron and an inferior division of English vessels of earlier types, such as now exist in the United States Navy, ended disastrously for the English; but when two battle cruisers, with other vessels, encountered this same squadron at the Falkland Islands, December 8, 1914, the German ships found themselves unable to cope with the superior power and unable to escape from the superior speed of the battle cruisers. Moreover, the superior speed of the battle cruisers had much strategic value, in that it enabled them to reach with great promptness their field of action.

It is a notable fact that in every naval event of consequence which has occurred in the North Sea area the leading parts have been taken by vessels of the battle cruiser and scout types, and it is evident that had either side lacked such vessels it would have been at a disadvantage. When the battle-cruiser type was first brought out, it was argued that it could lie in the line with battleships and be used as a battleship upon occasion. Experience of the war, however, seems to indicate that their primary function will be in independent action, and that if a possible antagonist is possessed of any material number of vessels whose speed enables them to certainly elude the battleship, and which are so powerful that they need not apprehend torpedo craft, it is necessary to have the battle cruiser to cope with them.

While under the conditions of the part, attacks upon the over-seas merchant marine of the United States, in case of war, would have done little damage owing to its limited size, it is hoped that by the time these vessels are built our over-seas merchant marine will be more extensive. Apart from this it will be absolutely necessary in case of war to prevent the light, fast vessels of the enemy from committing depredations on the United States coast and destroying the auxiliary and supply vessels of the fleet.

In addition to the illuminating experience of the present war it may be pointed out that several times during the last year or 18 months' careful war maneuvers have been undertaken by the United States Navy for the purpose of

investigating its present capacity for defending this country against hostile attack. It is practically the unanimous opinion of the responsible officers who engaged in these maneuvers that for the defense in question an adequate supply of proper scouts is essential. Improvised scouts, such as destroyers, are not satisfactory. It is necessary that the scout should be a vessel designed for scouting duties and sufficiently large and robust to be able to do its work practically without regard to weather conditions.

In case of war, the country having the superior fleet will probably control the sea, but experience has demonstrated the fact that fast cruisers may keep the sea for an indefinite period, obtaining supplies and coal from captured merchantmen and in the meantime do an inestimable damage to the commerce and lines of communication of the country with the more powerful navy. Without fast cruisers of equal or greater power, both in speed and armament, the real control of the sea and protection to commerce and lines of communication can not be assured. In actual fleet operations, such a problem as must confront the United States in case of war with an over-seas enemy, the fast cruiser becomes the eyes of the fleet, to them the commander in chief must look for his information of the whereabouts and movements of the enemy's fleet; to insure success, our eyes must at least be equal if not superior to the eyes of the enemy; in other words, our fast cruisers must be equal to if not superior to those of the enemy.

Secretary DANIELS. In 1915, on January 25, I made an address to the War College at Newport, which you will find in the *New York World* of June 25, 1915, outlining the policy of the Secretary of the Navy toward large naval expansion, particularly urging that the naval officers should face new conditions in a new character of war and be ready to daringly go forward and to do whatever might be necessary to make the American Navy bold, audacious, and victorious. That article in the *World* is as follows:

DANIELS OUT FOR A GREAT NAVY OF MODERN CALIBER.

IN ADDRESS BEFORE WAR COLLEGE SECRETARY DANIELS DWELLS ON DEVELOPMENT OF SUBMARINES AND AIRCRAFT AND PLEADS THAT OUT-OF-DATE SHIPS AND METHODS BE DISCARDED FOR NEW.

NEWPORT, R. I., *June 26.*

In an address at the opening session of the Navy War College here to-day Secretary Daniels appealed to American naval officers to profit by the lessons being taught by the great war in Europe and to discard fearlessly all theories which fail to stand the acid test. He referred briefly to the Navy program for the coming year and expressed confidence that Congress would authorize any increase recommended.

"In personnel and material the Navy is larger than ever before," Mr. Daniels said. "Its men are trained and fit. Its experts in every department are active to remedy any defects of the past and take advantage of all that has been learned in the only true school in which this knowledge may be obtained, by observing through our experts in Europe all that may be learned from actual war.

OLD TACTICS DISAPPEARING.

"As you look abroad you see the foundation of old theories crumbling every day. Old tactics, old strategies, old theories of naval warfare which have stood unchallenged as almost axiomatic since the trilemes of Carthage and Rome grappled together in the Mediterranean are disappearing overnight.

"If war upon the land has reverted to the bayonet and the hand grenade, war upon the sea has leaped forward at a single stride and broken almost every shackle of ancient convention.

"We have seen the main fleet of the greatest sea Nation in the world withdrawn from the seas to some secluded harbor without having fired a shot during the first year of a mighty conflict. We have seen battles begun at ranges believed to be impossible and ships disabled by shots from guns as yet invisible. We have been told that modern sea fights would be determined in the first 10 minutes, yet we have seen that it took six hours to decide one of the greatest ocean battles of the present war. We have seen ships of shallow draft used as fortresses to protect land armies on the Belgian coast.

"We read only yesterday of submarines gliding unchallenged past the impregnable fortress of Gibraltar and the guardian ships that watch the straits. We have seen fast cruisers raiding the coast and eluding their pursuers by the help of dirigibles hovering far above and warning through the new miracle, wireless telegraphy, the ship beneath.

TERROR OF THE SUBMARINE.

"With what weapons, by what strategy, shall we meet the terror of the submarine; the still unrevealed possibilities of the airship? It is to you, gentlemen, that this question must be put. It is to you your Secretary of the Navy looks for an answer.

"My earnest word, my solemn plea, to-day is to urge you fearlessly to discard worship of all things that are old, and to adopt courageously anything that is new the moment that some development of the present convinces you that the old way is no longer the right way, or that the new way points to the path of victory.

"It is the courage of the American people in facing new conditions from the time our forefathers dared and mastered the terrors of the wilderness and built therein a new Nation with a new Government that has made us great to-day. Holding wisely to what is good in the past, to such principles as stand the acid test of this great war, do not fear to cast aside what have proved to be mere shackles of convention and daringly to go forward.

PLEDGES HIS ASSISTANCE.

"I hereby pledge myself to spare no effort to assist this onward march. Rest assured that what you plan will find a sympathetic and attentive ear.

"I want to feel that when my term of office closes my successor will find, in orderly arrangement, the most perfect plans and methods human wisdom can invent, kept always up to date, for the conduct of our Navy in time of war, and it is here that the studies necessary for such plans must be carried on."

The program for 48 battleships by 1919, he said, would have been carried out if all Congresses had been as liberal as the Sixty-third. He expected the next Congress to make liberal appropriations and further aid in the expansion by providing funds for weapons not now in existence.

Those who heard his speech interpreted it as a plea for great fleets of sea-going submarines and aerial craft.

On Monday, June 28, the New York World had the following editorial, which I will put in the record and I will read one paragraph:

"Mr. Daniels has seen in this fateful time 'old theories crumbling every day' and 'old tactics, old strategies disappearing overnight.'"

And they also added:

Reminding his hearers that "the courage of the American people in facing new conditions" has made the Nation great, Secretary Daniels meets the new conditions.

That speech I call your attention to is of the same tenor of urging new methods, discarding old tactics, that was much more ably and convincingly presented by the President in his speech in 1917.

In 1915 we were pressing and urging bold methods and the discarding of old methods.

(The editorial referred to is here printed in full in the record, as follows:)

[The World, Monday, June 28, 1915.]

A NAVY UP TO DATE.

Secretary Daniels's strong speech at the opening session of the Naval War College should satisfy those who have been his severest critics. It should displease no one except ultrapacifists, and 1915 is not their year for commending their policies to the public.

Mr. Daniels has seen in this fateful time "old theories crumbling every day" and "old tactics, old strategies disappearing overnight." He has seen great superdreadnaughts hiding in guarded havens while the unseen terror of the underseas ravages at distances hitherto deemed impossible. He has noted fast cruisers using hovering dirigibles as eyes to guide their raids on enemy coasts.

Reminding his hearers that "the courage of the American people in facing new conditions" has made the Nation great, Secretary Daniels meets the new conditions. He does not propose a Navy of menacing size, but a Navy up to date. To this end he has made arrangements for fuller use of the best expert thought within the department, without compromising the necessary safeguard of civilian control.

Next, to Mr. Bryan, Mr. Daniels has been the member of the President's Cabinet most often and most harshly criticized. Nothing in his conduct of the office has justified the abuse that has been wrecked upon him. If he successfully devotes himself to such modernization of the Navy as recent developments suggest, the need for which he so well states, he will disarm opposition by distinguished service.

Secretary DANIELS. So much has been stated here about dilatoriness, and the fact that the Navy and the Secretary of the Navy did not, after the sinking of the *Lusitania*, move as rapidly and as earnestly as possible to secure a greater Navy, and to put our Navy in condition for the day that came. I put in the record an article from the New York Herald of July, 1915, a statement which I made in July, 1915, to the New York World, an article in the New York World, dated July 25, headed "How Daniels and Garrison plan to build bigger Navy and Army—Four superdreadnaughts, 100 submarines, big fleet of destroyers, increase of 18,000 in personnel, and recognition by Congress of Edison inventors' board among proposals of Secretary of Navy," etc.

I also present an article from the San Francisco Call, the headlines being "Daniels is busy on plan for better Navy."

I present what the press said about the plans and policies in the spring of 1915. Similar articles appeared in almost every paper in the United States, telling the people that the Secretary of the Navy and the Navy Department were alert, energetic, active, doing all possible to create a stronger public sentiment, so that when Congress should take up the great recommendations made, there should be a public sentiment behind the recommendations that would justify Congress in the larger appropriations made; and as a matter of fact, when Congress did take up these recommendations, it was supported by public opinion in the drafting and passage of the great bill which they began to work on on the 1st of December, 1915, and enacted August 29, 1916.

(The newspaper articles last referred to are here printed in full in the record, as follows:)

DANIELS IS BUSY ON PLAN FOR BETTER NAVY.

[By International News Service.]

WASHINGTON, June 11.

Secretary of the Navy Daniels, Rear Admiral Benson (Chief of the Navy Staff), Rear Admiral Caldwell, and other officials began actively to-day to prepare for a greater Navy.

This activity in the Navy is intended to keep pace with the progressive movement of Secretary of War Garrison and his Army Staff. They will have plans ready soon for a greater Army.

The character of the work being done by both the Army and Navy heads indicates now that neither of the executive branches will be caught napping should there be an extra session of Congress.

Secretary Daniels said to-day that the chief topics of discussion were the types of cruisers to be on the construction program, the protection of battleships from torpedoes, and the best plans to secure a naval reserve.

The reserve is to consist of 25,000 additional men, who are to mostly former sailors of the Navy. The compensation for the Navy men who are enlisted will be in proportion to the length of their service as active sailors.

There seems to be no question that the construction program will include several battle cruisers, of which the United States has none on its list. The question of protecting warships, and especially battleships, from torpedoes is one of tremendous importance. With the development of this question it is promised by officials that there will be special attention paid to the development and improvement in all up-to-date essentials of the submarine service.

HOW DANIELS AND GARRISON PLAN TO BUILD BIGGER NAVY AND ARMY—FOUR SUPER-DREADNAUGHTS, 100 SUBMARINES, BIG FLEET OF DESTROYERS, INCREASE OF 18,000 IN PERSONNEL, AND RECOGNITION BY CONGRESS OF EDISON INVENTORS' BOARD AMONG PROPOSALS OF SECRETARY OF THE NAVY—WAR SECRETARY WANTS ARMY OF REGULARS AND MILITIA OF 410,000 MEN, RESERVE FORCE OF CITIZENS, EQUIPMENT FOR 1,000,000, MILITARY ACADEMY ON PACIFIC COAST, MORE BIG GUNS FOR COAST DEFENSE.

[Special to the World.]

WASHINGTON, July 25.

From authoritative sources the World has obtained a general outline of the reports that Secretary Daniels and Secretary Garrison will present to President Wilson regarding a definite program for a larger Navy and Army. It is upon these reports, as finally approved by the President, that the two Secretaries will base their estimates of expenditures which Congress will be asked to provide. The Navy program is:

1. The construction of at least four superdreadnaughts and probably two battle cruisers of the British *Queen Elizabeth* type. The United States Navy at the beginning of this year was 10 first-line ships behind the number required by the policy laid down by the Navy General Board in 1913.

2. The construction of a large number of destroyers. The Navy, on the basis of its present number of big ships, built and building, was 92 destroyers short of the complement determined upon by the General Board of four destroyers to each battleship. The Navy now has 40 battleships of all types and only 68 destroyers.

3. The construction of upward of 100 submarines, furnishing a complement of 50 for each coast.

4. The construction in the aeronautical base at Pensacola, Fla., of a plant for the construction of hydroaeroplanes, capable of turning out at least three machines a week, or as fast as officers can be trained to operate them.

5. Increase in enlistment authorizations to bring the enlisted personnel immediately up to the full strength for all ships, built and building, which might be utilized in time of war—an increase of about 18,000 men.

6. Enlargement of the capacity of the Naval Academy at Annapolis with a view of overcoming at the earliest possible moment the existing shortage of 900 officers, on the basis of the ships built and building, to say nothing of the needed increases through extensions in the aeronautical and submersible branches of the Naval Establishment.

7. Authorization for the expenditure of a large lump sum at the direction of the Secretary of the Navy, with a view of taking advantage of improvements and desirable innovations immediately upon their discovery.

8. Legislation giving the Board of Civilian Inventors, which Secretary Daniels recently created, a status before the law.

DANIELS TELLS THE WORLD OF PLANS TO IMPROVE NAVY.

By JOSEPHUS DANIELS, Secretary of the Navy.

[By telegraph to the editor of the World.]

MOREHEAD, N. C., July 25.

We are now studying what has been learned by the European war that will constitute the best guide for the larger naval program. The outstanding lessons are three:

1. The value of the submarine: The last Congress authorized twice as many submarines as any previous Congress and also authorized the building of three seagoing submarines larger than any nation has yet constructed. We are building one submarine in the navy yard at Portsmouth, N. H., and must build others in navy yards, thus securing competition between Government plants and private construction companies. We are expecting to get better batteries; two have already been ordered from Edison and will be shortly installed, one in an old and one in a new submarine. Naval experts and civilians are trying to improve the motors, which are now difficult to obtain. We are planning for new submarine bases ashore and for new tenders for submarines. The perfection of the submarine and the construction of a large number of additional ones may be said to be receiving most earnest consideration by naval experts and naval statesmen.

2. The European war has emphasized the value of aircraft as a naval aid. The last Congress recognized the importance of aircraft and gave us \$1,000,000 to begin a fleet of scouts in the air. We have established at the abandoned navy yard at Pensacola an aeroplane station with school for instruction and shops to repair machines, and the construction officers will soon have completed the plans for the construction of our aeroplanes at Pensacola. Important experiments are being made at the navy yard in Washington. I had made contracts to buy hydroaeroplanes in Germany and in France just before war was declared. These can not be secured now. But we have placed orders also with home companies and are buying all types that are suitable for our service made by American manufacturing concerns. Almost daily we are assigning young officers to the Pensacola school, so we will have trained men to fly in the new craft ordered.

3. The need of fast cruisers has been emphasized. The General Board and construction officers are now busy discussing the character of fast cruisers and battle cruisers. Our policy in the Navy hitherto has been to sacrifice speed to armor and guns. Now we see the need, if necessary, of sacrificing armor to speed. We must have ships that in heavy seas can make 40 knots. The types are yet to be determined upon.

These are the big things the big war has emphasized as the immediate need in our naval program.

Have we need to change our policy as to torpedo destroyers and dreadnaughts and armor? These are matters our ablest experts at home and abroad are studying and discussing. The General Board is holding daily sessions discussing these and other naval problems. The number of additional officers and men is under consideration. Until these studies are completed I can make no definite statement. It will be a program of progress and development along lines learned by experience.

MR. DANIELS SURE LARGER NAVY WILL RECEIVE SUPPORT—SECRETARY PREPARING PROGRAM RECOMMENDING INCREASES—SENTIMENT CHANGES IN CONGRESS.

[New York Herald.]

HERALD BUREAU,
Washington, D. C., Thursday.

Josephus Daniels, Secretary of the Navy, said to-day that he was preparing to recommend increases for a larger Navy in accordance with the program of the administration for a greater national defense without regard to the condition of the revenues of the United States. He is confident after sounding public opinion, that the people desire a larger navy and are willing to pay for it.

Mr. Daniels also let it be known that he will be ready to discuss a greater naval program with President Wilson by the middle of August, when he hopes the recommendations of the General Board will be in concrete form. He will urge the adoption of the program as the minimum for Congress to decide upon, hoping that the Senate and the House will see fit to increase it.

President Wilson, in calling for estimates from the members of the Cabinet, did not ask the Secretaries of the Navy and War Department to make them as low as possible, considering the revenues available. This, however, was done a year ago. The opinion prevails that in the question of national defense revenues should be of secondary consideration, within a reasonable figure, and that the increases required should be decided upon without regard for a sugar tariff, a war tax, and the like.

The General Board of the Navy, which usually goes to Newport in the summer, is in daily session here, close to Mr. Daniels, and there is reason to believe that the recommendations will be ready several weeks in advance of the usual time. Mr. Daniels hopes to have a general outline of the recommendations of the board when he takes the question up with the President, although he does not expect to have the full report until later.

How much of an increase in the Navy will be recommended is, of course, uncertain as yet, but the board's report, which always has been much larger than the building program approved by the Secretary of the Navy, is understood to stand a much better chance of acceptance this year than ever before. The guesses on the increased appropriations which will be asked range from \$50,000,000 to \$150,000,000.

Mr. Daniels has been sounding sentiment recently on the idea of a larger Navy, reading editorials from newspapers in the interior as well as the larger cities, and talking with Members of Congress who always stood for small naval appropriations, and is sure that the attitude is changing rapidly. Members of Congress who voted before for a single battleship, he found, now are willing to back large increases.

Secretary DANIELS. Early in the hearings, Mr. Chairman, I called attention to the fact that since March 5, 1913, the Navy Department had secured appropriations from Congress which have amounted to \$1,800,000,000 more than the total expenditures of the Navy during all the years since 1794, and that with all this large expenditure, amounting in full to \$5,825,299,944.74, there has never been in any paper in the United States, by any man in the United States, that I have ever seen, any statement that there was one dollar of any graft, or any favoritism, or any misappropriation. On the contrary, the business men of America, the large business men, who knew about war expenditures and war conditions, have given their opinion that the business side of the Navy was conducted in a manner to make it a model for the great business enterprises of America. I think it is a miracle, in view of the fact that the money must be spent promptly, that over \$5,000,000,000 should have gone through the hands of the Navy Department without a criticism.

The World War occasioned no reorganization of the Navy's supply system, the one object for years having been to work along the lines laid down by Secretary of War John C. Calhoun in his 1820 annual report.

The only difference between peace and war formation ought to be in magnitude, and the only change in passing from the former to the latter should consist in giving to it the augmentation which will then be necessary.

There was practically no change—simply expansion—and such outside help as was accepted by the Navy came because the Nation's total demands suddenly exceeded its supply of certain commodities, this necessitating centralized distribution.

In making Navy purchases, the principle of free and unrestricted competition among bona fide dealers was not departed from, bids being publicly opened throughout the war and each bidder having full knowledge of his competitors' offers.

The bidding list was increased from 6,000 to 18,000 firms. All brokers, speculators, and objectionable middlemen were effectually excluded. And, although the amount of supplies purchased by the Navy increased from a total of \$27,000,000 in the heaviest prewar year to \$30,000,000 in one single day, there was no delay or confusion, and nothing occurred like the Civil War scandals thus described by Secretary of the Navy Gideon Welles in his annual report for 1864 (just before the Supply Corps took charge):

Under the practice that has prevailed, the whole system has become tainted with demoralization and fraud by which the honest and fair dealer is too often driven from the market.

Money expenditures by the Navy from the outbreak of war to date totaled over \$4,193,000,000, or one and one-third times as much as had been previously expended during the entire 123 years since the Navy was founded (including four wars).

Although the enlisted force of the Navy suddenly expanded from a scant sixty-odd thousand to 500,000 men, there was at all times sufficient clothing of satisfactory quality available when needed.

To meet the war demand, the Navy increased temporarily its storage space at home by over 13,000,000 square feet.

Despite the scarcity of certain articles of food and the constant and persistent pressure from outside amounting in effect to actual propaganda for relaxation of the rigidity of the Navy's specifications—especially on meats—no such thing was done, and the standard of subsistence was never lowered.

The Navy subsisted satisfactorily more than 900,000 troops transported to France and another 1,200,000 returning.

Navy cost inspectors supervised work under contracts and commandeered orders amounting to over \$886,000,000 with a recorded saving to the Government of more than \$125,000,000.

Practically all American ships engaged in overseas service were fueled by the Navy, and, due to special storage and up-to-date bunkering facilities, sailing schedules were invariably adhered to.

Navy shipments overseas embraced 12,000 tons of gasoline, 130,000 tons of coal, 746,000 tons of fuel oil, and 1,200,000 tons of miscellaneous supplies, all of which were sent in pursuance of Supplies and Accounts intrabureau order 201, of July 26, 1917:

Requisitions, requests, and recommendations from Vice Admiral Sims, senior naval officer in command in Europe, are to be acted upon the same day they are received, and, unless there be some insurmountable obstacle, in exact agreement with his wishes; that is to say, when I properly have any discretion in the premises, it is to be understood that that discretion has already been exercised when Admiral Sims's wishes become known.

Advice of action taken will be immediately cabled to Admiral Sims in every case.

I am aware that, almost without exception, the foregoing rule has been in effect ever since Admiral Sims went abroad, but the necessity for instant action and unconditional support of everything that he does or wants to do is so obviously important that this order is issued to the end that immediate and favorable action may hereafter be invariable.

Mr. Chairman, I will not read any more of this set of documents, but will simply insert the balance in the record. It shows the work of the Bureau of Purchase and Supplies during the war.

NAVY DEPARTMENT.
BUREAU OF SUPPLIES AND ACCOUNTS.
Washington, D. C., March 31, 1920.

MEMORANDUM FOR THE SECRETARY OF THE NAVY.

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"Advice of action taken will be immediately cabled to Admiral Sims in every case.

"I am aware that, almost without exception, the foregoing rule has been in effect ever since Admiral Sims went abroad; but the necessity for instant action and unconditional support of everything that he does or wants to do is so obviously important that this order is issued to the end that immediate and favorable action may hereafter be invariable."

The foregoing two pages of summarization are intended to show at a glance some of the principal things accomplished by and under the Bureau of Supplies and Accounts.

The succeeding pages of this memorandum will be devoted to a statement of the principal facts in somewhat more detail; a clearer understanding of the situation being afforded by reference to the following inclosures:

Standard stowage list.

Lists of provisions and general supplies for supply ships.

Form of standard stock catalogue.

Standard clothing list.

Standard provision lists.

Form used for recording facilities and capacities of mills for turning out articles needed for Navy use.

Index of subjects contained in logistics report dated 31 March, 1916.

Index of subject contained in logistics report dated 31 March, 1917.

Chart showing organization of the Bureau of Supplies and Accounts before the war.

Chart showing organization of the Bureau of Supplies and Accounts at the signing of the armistice.

Statement of purchases under the Bureau of Supplies and Accounts during the fiscal years 1914 and 1917.

Analysis of total expenditures for the fiscal years 1913 and 1917.

In order that the scope of this work may be appreciated, it is necessary to indicate the relations of Supplies and Accounts to the other bureaus and offices of the Navy Department. The Navy has had since 1889 a centralized system by which Supplies and Accounts purchases the stocks of all supplies, materials, and equipage that are required to make the vessels of the fleet habitable and manageable; also the materials and supplies necessary for the mechanical and laboring forces at navy yards and stations; the stocks of fuel oil and gasoline; all clothing, provisions, and canteen supplies; navigational instruments; building materials and practically all materials for ordnance. These purchases are made on specifications prepared or approved by the particular bureaus of the department which are to use them and will ultimately pay therefor out of the appropriations made for each bureau by Congress. The materials are inspected either at the works of the contractor or at the navy yard by an inspector under the cognizance of the bureau concerned, in order that it may be fully satisfied that the quality is according to the specifications which the bureau originally prepared.

The deliveries are made to the supply department of the navy yard, and there inspected, stored, held for issue by requisitions submitted by the head of the yard department or by vessels of the fleet, and shipments made to other yards and stations. The supply department also accounts for all stores received, issued, and on hand. The accounting department keeps track of the time and job and cost of work upon which every mechanic and laborer in the navy yard is employed. The disbursing department pays off the yard working force and also pays public bills for deliveries made.

There is, therefore, a series of checks all along the line—the supply department keeps the stock; the hull or engineering department inspects it as to quality and quantity; and the disbursing department pays for it.

At each navy yard and station—whether industrial or nonindustrial—the work of the yard in the building or repair of the vessels of the fleet is divided between several departments, hull, engineering, public works, and supply departments, each department spending money out of funds allotted to it for specific purposes by the bureau having cognizance of the appropriation.

The supply officer is responsible for the maintenance of the vast run of miscellaneous fleet supplies, materials and equipage, clothing, provisions, fuel, and the like.

Special articles not carried in stock, such as machine tools, explosives, ordnance, or special articles of equipage, such as radio equipment, boats and the like, are obtained on requisitions and specifications prepared by the head of the yard department or in the bureau concerned—in any event the requisitions

must be approved by the chief of the bureau against whose appropriations the value of the stores when purchased or issued will be charged.

This indicates in a brief way the coupling up of the user and payer for an article with the purchaser and custodian thereof in the Navy Department organization.

It follows logically that every increase or decrease in an activity under the material bureaus of Ordnance, Construction and Repair, Steam Engineering, and Yards and Docks is felt and reflected in or under Supplies and Accounts; and similarly, to a lesser degree, the same fact applies to the Bureaus of Medicine and Surgery and Navigation and to Operations.

RESERVE STOCK.

It was realized in 1915 that the stocks primarily of Navy standard items were too low. As a business proposition, the turning over of capital invested in material four times each year was an excellent showing; but from a military point of view it was wholly inadvisable and dangerous, for the simple reason that stocks could not be replenished quickly when an abnormal condition existed with respect to the ordinary laws of supply and demand, which was to be expected when all industrial plants were called upon to manufacture munitions for the Government—shortage of labor, congestion in transportation, shortage of fuel and raw materials—all necessitated the accumulation of a reserve stock for military purposes to carry over until the time industry could be fully organized.

This led the Paymaster General of the Navy to issue instructions December 21, 1915, in part as follows:

"The commandant is requested to please direct the supply officer, when in replenishing stock of all actively-moving Navy standard articles, to so increase the quantities of such items as will be sufficient to maintain at all times a six months' reserve stock—the reserve stock, therefore, of any article to be the quantity in addition to the quantity which would be sufficient to complete the fitting out of all vessels—in active service and in reserve—and to provide probable repairs thereto, for which each yard is the home port.

"The foregoing instructions are not intended to modify in any way the maintenance of stock for such articles as boiler tubes, structural steel, special treatment steel, and other items concerning which previous specific instructions have been issued. The stocks of such articles are to be maintained under the instructions now in force. The foregoing list of items as quoted from the letter of the General Board is illustrative only, and was intended to show the general scope of the increases to be made in the stock of naval supply account. The increase, of course, should not be made in items which deteriorate readily or are liable to become obsolete. Care should also be taken in increasing the stocks on hand to give preference to articles difficult to purchase or requiring time to obtain delivery.

"As stated in the foregoing, the increases in stock should be not more than can be accommodated with present storage facilities."

An effort was made to limit the reserve stock to the requirements for six months; but in many instances stocks had to be ordered a full year in advance, such as brass and copper rods, sheets, tubes, etc.—this by reason of the fact that all mills turning out composition products were taxed to the utmost with orders from abroad.

STORAGE FACILITIES.

A study of storage facilities was then undertaken. All of the primary outfitting yards—Boston, New York, Philadelphia, Norfolk, Mare Island, and Puget Sound being so overtaxed to accommodate the then stocks on hand that but little increase or accumulation of reserve material could reasonably be expected. Plans for temporary structures were prepared and designs adopted, so that the work could be taken in hand immediately after the funds therefor were made available.

MAXIMUM STORAGE CAPACITY OF VESSELS OF THE FLEET.

Under date of January 11, 1916, the following letter was sent to the commanders in chief of the Atlantic and Pacific active and reserve fleets:

"There are forwarded herewith mimeograph copies of a tabulated list showing the maximum storage capacity of the ships of the different fleets. It is the intention to ultimately have these lists printed and distributed to all

ships, navy yards and stations, in order that everyone concerned may know exactly what quantities of supplies of all kinds can be accommodated by the various ships of the Navy, and particularly that outfitting yards may have dependable figures in this respect for accumulating sufficient quantities of provisions and stores, as indicated.

"It is deemed expedient, however, to request that careful consideration be given the figures contained in this list in so far as they pertain to the ships under your command, with a view to reconciling manifest disparities in the quantities of supplies that sister ships indicate that they can stow. For instance, it will be noted that whereas the *New York* can carry 180 days' naval supply account stock, her sister ship, the *Texas*, states that she can carry 210 days of such supplies; and vice versa, whereas the *Texas* can stow but 150 days' dry stores and the *New York* can stow 180 days, it may be that there are inherent differences in the construction of the storerooms of these ships, or that some other material reason makes it impossible for them to carry identical quantities of supplies. It is believed, however, that it will be found in some instances that these disparities can be eliminated; and that sister ships can accommodate exactly the same quantities of supplies.

"With that end in view, it is desired that copies of this list be distributed to the vessels under your command, with such instructions as you may deem proper to have any inaccuracies which may be found to exist properly corrected. After sufficient time has elapsed for all ships under your command to report to you any corrections to be made in the figures, it is desired that one list be returned here, showing in red ink all the corrections that you desire to have made before this list is finally printed.

"As it is desired to have this list printed at the first possible moment, anything that can be done toward expediting the return of the corrected list will be greatly appreciated."

CARGO LISTS.

Lists of provisions and general supplies for supply ships were then prepared, as shown in inclosure B, C, and D, all of which are self-explanatory.

ARTICLE IMPORTED FROM ABROAD.

While our country produced practically all items within itself or could provide substitutes therefor, there were a number of important items required in connection with Navy work which were imported only from abroad; and intensive studies were conducted with respect to the supplies of tin, sodium nitrate, shellac, kapok, dyes, cork, flax, etc.

STANDARD STOCK.

In order to avoid the danger of accumulating stocks liable to become obsolete a Standard Stock Catalogue was prepared. This catalogue covers all items of supplies and materials necessary to meet the ordinary requirements of ships and manufacturing departments at yards and stations. It was not intended for any single yard nor for ships alone nor for the exclusive use of the manufacturing departments—it being a catalogue for the whole Navy. The use of the catalogue has resulted in standardizing material and eliminating the carrying of a large variety of sizes—the diameter of a screw or the thickness of a sheet of metal to be used for a specific purpose having been to some extent a matter of individual selection and it frequently happened that material not carried in stock was specified in drawings or called for on ships' requisitions because information as to the material regularly carried in stock was not readily obtainable; but, with the Standard Stock Catalogue in the planning sections and drafting rooms of every manufacturing department and in the supply department of every ship, as well as in every supply department on shore, coordination was possible with a maximum of efficiency in supplying adequate stores for the Navy without unnecessary waste. Inclosure E will indicate the form used. The Standard Stock Catalogue is now a volume 4 inches thick.

CLOTHING.

The policy with respect to clothing is set forth in the following letter from the Paymaster General of the Navy to the provisions and clothing depot, New York, dated March 7, 1916:

"It is desired for military and economic reasons to more uniformly administer the supply of clothing and small stores both afloat and ashore. To this end,

it would seem to be advisable to fix a time-limit quantity to be carried on board ship and at the depot.

"Except for a negligible few, the ships of the fleets can carry at least six months' clothing; whereas a great many can carry an even larger supply. There does not appear to be any good reason why all ships should not carry clothing to last the same length of time. If a few ships carry a year's supply while others have but half that quantity, there would not appear to be any advantage accruing to the ships as a fleet unit by reason of the greater carrying capacity of a few vessels; whereas when the supply gives out on a majority of the ships, we need a supply ship to replenish them; and the fact that a few ships are still sufficient unto themselves will not alter the circumstances.

"Therefore, why not have them all fitted out for the same length of time and then we will know exactly what quantity it will require to replenish a fleet after it has left port and exactly when a new supply will be needed.

"This refers, of course, to articles of clothing only and not to small stores or other small articles such as buttons, braid, rating badges, sewing thread, etc., of which—on account of the small space occupied—all ships can readily carry a year's supply.

"If instructions are issued, therefore, that all vessels (expected to cruise with the fleet) in fitting out for sea shall take a six months' supply of clothing—the articles being enumerated—and one year's stock of small stores and other small items not included in the six months' list, much time will be saved and confusion avoided if the fleet is suddenly mobilized.

"The question which now arises is as to the stocks which should be maintained ashore and as to the points at which these stocks should be maintained.

"As it is always practicable to foresee the needs for clothing and small stores, particularly if the above outlined plan is carried out, there would seem to be no reason why emergency requisitions should ever be necessary; and it is thought that the best results might be obtained by carrying clothing and small stores in stock at three yards only—New York, Mare Island, and Cavite—requisitions from ships being forwarded sufficiently in advance to the distributing yard to permit of shipment to the home yard by the time the clothing and small stores are needed.

"By thus pooling the stocks at three yards, an undue accumulation of odd sizes will be avoided, losses by deterioration of inactive stock minimized and more definite information at all times as to exactly how the Navy stands with regard to its clothing supply will be at hand.

"It is understood, of course, that the question of insufficient storage space at New York might preclude the possibility of such a plan; so, before any steps are taken toward putting it into operation, comment and recommendation with regard to the entire situation and in particular respect to whether or not the provisions and clothing depot would be able to handle the increased stock, are requested.

"In this connection attention is invited to the following, which is quoted from Supplies and Accounts, June 24 Quarterly Logistic Report:

"The present stocks of clothing are based on a supply sufficient for the needs of about 50,000 men, and the probabilities are that the Naval Militia will be already equipped with sufficient clothing. It is intended that the initial requirements for the 100,000 men shall be met first by pooling the stocks on hand at all depots ashore and afloat and by increasing quantities of raw materials considerably larger than the stocks it has been customary to carry in the past, within the limit, of course, of the funds available in time of peace. The demands for various articles comprising the outfit of clothing will depend very largely upon the theater of operations, for if in West Indian waters the great demand will be for white clothing and light underwear. During the Spanish war the fleet operations occurred during the summer, and large quantities of light underwear, white jumpers, trousers, and hats were in demand. No special effort was made then to procure large quantities of other items of clothing; and it is believed that the requirements for the enlisted personnel were then met and without complaint.

"It would appear advisable, therefore, to limit the clothing outfits to underwear, socks, shoes, shirts, trousers (blue and white), and jerseys. The stocks of cotton drill, blue cloth, blue flannel, lining materials, etc., will be materially increased as far as funds will permit, as above stated. Furthermore, each ship will be required to report the total issues of each item of clothing during the

previous period of three months in order that it can be determined what excess stocks are on hand, and it is confidently believed that the stocks, if pooled in this manner, will, together with the increase in raw materials, be almost sufficient to supply the ordinary demands of 100,000 men.

"The clothing factories will, of course, be worked to their maximum capacities, and in case they are unable to turn out such additional quantities of clothing which may be needed and which may not be on hand after providing for the pooling of stocks as above stated, it is the intention to make up a standard outfit of blues and whites and to forward them to the large manufacturers of men's clothing in order that their facilities for turning out outfits if needed can be determined.

"Shoes on special lasts require a comparatively long period of time to manufacture and recourse would be had to either dividing the contracts among several large shoe manufacturers or to purchase from the very considerable local stocks conforming to the Navy standard as closely as possible such additional quantities as may be needed.

"In the event of a campaign in the Atlantic, practically all stocks of clothing at the west coast stations will be ordered shipped, when war is imminent, to the navy yard, New York. With reference to increasing the supply of raw materials, however, this will be rendered difficult to accomplish because of the very meager stock of indigo and alizarin dyes in the United States at the present time. Practically all of these dyes are manufactured in Germany and it appears next to impossible to obtain any from that source within the near future.

"The dye condition is a serious menace to the continued use of navy blue as a color for uniforms, and this condition will invariably exist in case trade with the usual source of supply is interrupted as at present, providing, of course, local industries fail to take up the manufacture of these dyes to supply domestic demands. Under present conditions, to increase largely the stock of blue material, it would be necessary to use an inferior substitute or change to some other color.

"It is particularly requested that consideration of this question be given and a reply to this letter be made at the earliest convenience of the officer in charge."

The foregoing resulted in the preparation of standard clothing lists, as per inclosure F; and this was followed by standard provision lists, as per inclosures B, G, H, and I, which are self-explanatory.

FUEL AND TRANSPORTATION.

Studies were then commenced of the storage facilities necessary for the supply of fuel, and its transportation, for the fleet, whether operating off home bases or at distant points abroad. Standard time charter parties and bare ship charters were prepared, the commercial facilities of all ports—both at home and as many abroad as possible—being inquired into; names and capacities of mines producing Navy standard coal were listed and approved, and plans laid for the establishment of the following coaling depots, with the storage stated opposite each:

	Coal.	Fuel oil.	Gasoline.		Coal.	Fuel oil.	Gasoline.
	<i>Tons.</i>	<i>Barrels.</i>	<i>Gallons.</i>		<i>Tons.</i>	<i>Barrels.</i>	<i>Gallons.</i>
Portsmouth.....	12,000			Norfolk.....		734,000	90,000
Boston.....	10,000	50,000	90,000	Sewalls Point.....	300,000		
South Boston.....	75,000			Newport News.....	300,000		
Melville.....	45,000	203,000	90,000	Charleston.....	93,000	34,000	90,000
New York.....	9,000			Key West.....	13,000	34,000	180,000
Constable Hook.....	250,000			Guantanamo.....	21,000	355,000	90,000
Philadelphia.....	60,000			Panama Canal.....	100,000	42,000	
Baltimore.....	60,000						

Plans were prepared for the procurement of coal barges, water barges, ash lighters, and side-coaling devices, and a thorough and complete index made of the reports submitted by the Board of Inspection and Survey as to merchant ships which could be readily converted into colliers, tankers, supply ships, cargo vessels, and the like.

MOBILIZATION OF RESOURCES.

An investigation was instituted during 1915 and 1916 as to the facilities of the various mills, factories, and manufacturers of the United States for producing the things that would be needed and the capacities of the mills to turn them out; and inclosure J will indicate the form of the record maintained for this purpose. The plan contemplated the classification of manufacturers into inspection districts and for reports to be obtained directly by the inspector of engineering or hull or ordnance material in charge of each district. This work was of tremendous volume, as can readily be realized; and when this country was finally drawn into the war the demands of the Army and the Navy were so great as to necessitate their being coupled up with industry—the first step toward which was the creation of the General Munitions Board and later the War Industries Board, the work of which, with its commodity section organization plan, proved of such conspicuous value during the war.

In order to provide for the proper coordination of the work of Supplies and Accounts with that of the other bureaus of the Navy Department, the logistics committee was created July 7, 1916. This committee consisted of representatives officially designated by the Chiefs of the Bureaus of Construction and Repair, Steam Engineering, Ordnance, Yards and Docks, Medicine and Surgery, and the Chief of the Bureau of Supplies and Accounts, as such, acting as chairman.

It was the duty of the logistics committee to: "(b) Determine the initial requirements as to fuel, clothing, food, and supplies of all kinds, and the probable requirements for subsequent plans of the war; (c) ascertain the sources of supply of such material, amounts available, and times necessary for delivery; (d) make detailed plans for the purchase, delivery, inspection, and shipment of fuel, clothing, food, and other supplies."

The records of the committee were kept in the logistics section of Supplies and Accounts. The value of the work of this committee was mentioned in the logistics report of the Paymaster General of the Navy to the Chief of Naval Operations, under date of September 30, 1916, in part as follows:

"Though the work of the committee is actually done by the representatives of the several individual bureaus, it centers here, and is so closely connected with the activities of the Supplies and Accounts that it is considered not unfitting that the work accomplished should be briefly commented upon in this report.

"The committee has prepared and adopted a uniform source-of-supply card. It has further definitely decided exactly how this card is to be handled. The plan laid down will prevent the duplication of inquiries which has existed to some extent in the past. It has been decided to use for every article a guide card which will show as accurately as possible the initial and subsequent requirements for that material; these guides to be filed with the source-of-supply cards, thus making it easy to see at a glance both the demand and the supply for any particular item.

"As soon as all requirements are thus determined, it will be practicable to intelligently decide wherein the reserve stocks already obtained can most advantageously be augmented and also what other articles should be added to our military reserve. This question of reserve stocks has, on account of its close relation to storage facilities, necessarily been considered in conjunction with the latter subject, and the logistics committee has been and is giving careful thought to the matter of additional buildings for housing such supplies at all fitting-out yards, favorable recommendations having already been made in the case of Philadelphia and Norfolk.

"The Standard Stock Catalogue is proving to be a very valuable help to the logistics committee, which is now getting up additional information to be incorporated in the catalogue to furnish in this manner detailed instructions for the proper stowage of certain materials which are subject to rapid deterioration if not properly stored, or else are liable to be provocative of accidents which might result seriously. As this information concerning the particular requirements at various yards is required, the catalogue will be corrected.

"The committee has gone on record as being in favor of obtaining annual appropriations to cover the purchase of reserve machinery and equipment that would be most urgently needed in case of war. Naval Supply Account could be used to purchase any supplies needed for the Navy; but, if materials are purchased thereunder and then deteriorate before being used, the current ap-

appropriations concerned would be charged with the value of such supplies. If such materials are purchased for purely war needs, some provision must be made to meet this prospective obligation. It appears that the current appropriations may not be expected to meet the obligation; hence special appropriations for the purpose seem desirable.

"Attention is also being given to those necessary articles that are procured abroad with a view to ascertaining requirements as soon as possible, and then getting the material, or, if possible, determining upon satisfactory domestic substitute.

"Copies of the minutes of the three meetings of the permanent logistics committee—held, respectively, August 4, August 31, and September 2^d, 1916—are transmitted herewith as Exhibits 6, 7, and 8.

"The Paymaster General can not properly close this report without inviting special attention to the manner in which the permanent logistics committee got under way.

"The order of July 31 said:

"The committee will carry on," and almost from the moment the members first assembled it was obvious that there had been devised the means of solving a great many more or less vexed questions, particularly in the line of possible overlapping and duplication of effort.

"As will be seen from the accompanying copies of the minutes of the three

harmony. By reason of this, and judging from the spirit of cheerful cooperation invariably exhibited by the representatives of all of the bureaus concerned, the interbureau permanent logistics committee gives promise of progressively valuable work toward accomplishing real preparedness."

An idea as to the scope of the work performed by S and A in the preparation of the plans for war may be gained from Inclosure "K," which is an index of the subjects contained in the Logistics Report, dated March 31, 1916, and Inclosure "L," an index of the Logistics Report of March 31, 1917, hereto attached.

So much for the preparations that were made in advance of actual hostilities.

When war was declared the personnel of S. and A. consisted of 10 officers and 125 clerks.

The organization was: Transportation Division, Fuel and Logistics Division, Purchase Division, Fleet Division, Disbursing Division, Accounting Division.

The system of purchase had been established; the system of stores, their receipt, care, and issue had been in vogue, with a constant effort year by year to improve the efficiency of the centralized supply system; the accounting system had been in operation for several years, and the disbursing system had been simplified. So, when war was declared, activities along all lines were quickened as if by a magic touch. The Navy at once prepared to meet the supreme test for which it was created and all forces were bent upon getting into the strife and winning the war in short order. Expansion on a wide and elaborate plan was necessary. Bases had to be established, storehouses built or rented, and materials manufactured—involving transportation of raw materials, as well as the finished product, over congested railroad lines in our own country and through a sea beset by submarines and strewn with mines to reach the bases abroad.

TRANSPORTATION DIVISION.

Two divisions were established to handle shipment matters and solve the various transportation problems as they arose. First, the Overseas Transportation Division, with an officer of the Regular Navy in charge, to handle transoceanic shipments, and, second, the Inland Traffic Division, with an officer of the Railroad Administration in charge, to handle domestic freight.

Over 1,000,000 tons of Navy cargo were shipped abroad with practically no loss at sea. There was a gradual increase of tonnage from 3,000 tons in May, 1917, to 142,921 tons in September, 1918, when the high-water mark, so far as overseas shipments were concerned, was reached. The mine project in the North Sea alone required over 83,000 tons of material.

The directions with reference to the handling of this vast quantity of stores were issued by the Overseas Division. During the loading operations the officer in charge was in constant touch both day and night with the yard at

which vessels were loading, in order to be able to adjust any matters which might arise and tend to delay sailings. Vessels were loaded with the utmost dispatch. Frequently cargoes were placed on board at New York, Philadelphia, and Norfolk in from two to four days. The material transported consisted of an indefinite variety of articles, including delicate instruments and wireless apparatus; bulky items, such as aeroplanes and boats, as well as provisions and munitions.

All requests for shipments were acted upon promptly, however, those received from the fighting forces at the front being given preference in accordance with the specific directions of the Paymaster General in the following intrabureau order issued July 26, 1917:

"Requisitions, requests, and recommendations from Vice Admiral Sims, senior naval officer in command in Europe, are to be acted upon the same day they are received and, unless there be some insurmountable obstacle, in exact agreement with his wishes; that is to say, when I properly have any discretion in the premises, it is to be understood that that discretion has already been exercised when Admiral Sims's wishes become known."

When it is recalled that there were few overseas shipments on account of the Navy previous to the outbreak of hostilities, and that rail movements increased about 1,500 to 2,000 per cent, the difficulties to be overcome in expanding, without rupture, to meet the new conditions are obvious.

Numerous and urgent requests were received from contractors and Government officials to have car equipment furnished, to have shipments expedited and to have embargoes removed, all of which were promptly acted upon by inland traffic, in conjunction with the Railroad Administration, when necessary.

Prior to the taking over of the railroads by the Government, it was clearly evident that unless special measures were adopted there would be serious delays in transporting Navy matériel and completing the Navy building program, owing to rail freight congestion. At that time the roads to the Atlantic terminals were clogged with tonnage primarily intended for this Government and the Governments allied against the Central Powers; and it was with great difficulty that prompt movements of consignments in which the Navy was interested, including those between contractors, were obtained.

This led to the development of what was designated as the "Navy shipping envelope," in which the waybill or car card was placed. The use of this envelope, which was of special design and clearly indicated to the railroad employees the Navy's interests in the consignment, resulted in lessening the delays in delivery. This shipping envelope was later adopted by the War Department and the United States Shipping Board and was an important contributing factor toward expediting transportation of munitions and supplies.

As the war progressed the transportation problem became more acute. With a view to surrounding the movement of matériel and supplies for the Navy and Navy contractors with every possible safeguard for prompt dispatch, representatives were placed in the principal eastern and middle western cities where congestion was heaviest. These representatives were known as field traffic officers, and it was their duty to cooperate with the railroad officials in an effort to keep Navy freight moving freely through the congested sections and to expedite through their districts matériel urgently needed.

Weekly reports submitted by the field traffic officers, indicating activities regarding transportation difficulties met with, as affecting Navy shipments, enabled the Navy to foresee and prepare the necessary details for moving its freight expeditiously.

At the same time, attention was given by this division to new lines, better delivering facilities at the primary yards and stations, notably at Mare Island, Calif.; New Orleans, La.; and Norfolk, Va. The White Plains and Indian Head extension, permitting the forwarding of freight for the proving ground direct by rail instead of through the Washington yard and thence by barge to destination, was started during hostilities and recently completed.

In addition to the movement of material and supplies action was taken to transport the necessary workmen to and from certain yards in order to carry out the various activities, as it was impossible for these men to obtain living quarters in close proximity to the yards. Arrangements were made with the Railroad Administration for special trains, known as "labor specials," to carry these men, part of the expense of the operation thereof being defrayed from Navy appropriation.

The following appropriations for freight were made by Congress for the fiscal years 1917-18 and 1919:

1917:	
Act Aug. 29, 1916	\$725, 000. 00
1917-18:	
Act Mar. 4, 1917	850, 000. 00
Act June 15, 1917	1, 750, 000. 00
Deficiency act Feb. 25, 1919	4, 578, 200. 12
	7, 178, 200. 12
1919:	
Act Jan. 7, 1918	4, 000, 000. 00
Deficiency act Feb. 25, 1919	10, 000, 000. 00
	14, 000, 000. 00
Total	21, 903, 200. 12

FUEL AND LOGISTICS DIVISION.

Commandeering of tankers.—Upon the outbreak of hostilities it became necessary for the Navy to secure additional tank vessels in order to meet the needs of naval forces operating overseas, the Navy tankers *Kanawha*, *Cuyama*, and *Maumee* being entirely inadequate to meet the demands for shipment of fuel oil and gasoline.

It was practically impossible to secure tankers by ordinary means, even at the prevailing commercial rate of from 240s. to 300s. per ton for voyages between United States port and United Kingdom or French Atlantic ports. These rates were based upon the owners assuming all war-risk insurance, both for steamer and cargo.

On June 2, 1917, after much negotiation, the following tentative rates were proposed to the Navy:

From one North Atlantic port to one port in United Kingdom or one French Atlantic port: Fuel oil, 100s. per ton per cargo, intake weight; naphtha, 100s. per ton per cargo, intake weight.

If loaded at one United States Gulf port, for same destination: Fuel oil, 120s. per ton per cargo, intake weight; naphtha, 122s. per ton per cargo, intake weight.

The foregoing rates would apply only to voyage on the steamer covered, and would be subject to bimonthly revision.

The foregoing rates were deemed excessive, it being believed that a rate of \$4.25 per dead-weight ton per month on a time-charter basis would be a fair charter rate. This rate was determined as follows, based on a 7,000-ton steamer, the cost per vessel to owners at \$100 per ton:

Crew's wages	\$78, 000
Provisions, engine and deck, supplies, water	30, 000
Management and consulting engineer	8, 000
Small repairs, boiler cleaning, etc	12, 000
Dry-docking, general hull and machinery repairing, survey, etc	15, 000
	141, 000
Marine insurance, 8 per cent	58, 000
Depreciation, 6 per cent	42, 000
Interest on outlay, 5 per cent	44, 850
	283, 850
Profit, 6 per cent	42, 000
Per annum	325, 850

Allowing one month annually for dry-docking, repairs, survey, etc., about \$4.25 per dead-weight ton monthly plus war risk.

On July 21, 1917, the following vessels were commandeered, after due investigation as to the ability of the owners to furnish without detriment to

their commercial trade or to shipments they were making for account of allied Governments:

Vessel.	Cargo capacity.	Owner.
	<i>Tons.</i>	
Standard Arrow.....	12,500	Standard Oil Co. of New York.
Rayo.....	5,200	Do.
Gargoyle.....	8,500	Vacuum Oil Co.
William Rockefeller.....	9,700	Standard Oil Co. of New Jersey.
Topila.....	7,000	Southern Pacific (Associated Oil Co.).
Los Angeles.....	11,000	Union Oil Co.
Gold Shell.....	7,600	Shell Co.

Time charters were made for these vessels at a tentative rate of \$4.25 per dead-weight ton per month, subsequently changed to a permanent rate of \$4.15 per dead-weight ton per month, in accordance with advice received from the United States Shipping Board that this rate had been determined as equitable and in accordance with their authority by law to establish rates (act June 15, 1917). The tanker *Rayo* was employed for a brief period pending delivery of the *Standard Arrow*. Tankers subsequently chartered for the Navy were obtained through the United States Shipping Board, all on a time charter basis at the rate of \$4.15 per dead-weight ton per month.

The rate of 100 shillings per ton quoted to the Navy on a trip basis would amount to about \$15.70 per dead-weight ton per month on a time charter basis. Based on the length of time each vessel commandeered was employed, the Navy effected a saving of approximately \$9,000,000.

Purchases of fuel during period April 1, 1917, to July 1, 1919.—Fuel in the following quantities was purchased during the period April 1, 1917, to July 1, 1919, for all naval purposes, both ashore and afloat:

Coal.....	tons..	7,500,893
Fuel oil.....	barrels..	15,428,490
Gas oil.....	do.....	103,811
Distillate.....	gallons..	605,773
Gasoline.....	do.....	25,067,675

A complete survey was made of the coal and petroleum industry, covering output, cost of production, demands for essential war industries, and requirements for allied powers. Based on this investigation, Navy orders were placed with the different suppliers for deliveries on an advanced-payment basis, final prices being left for later determination. The ultimate fixed prices were established after exhaustive inquiries made by various governmental agencies into operating and transportation costs, fluctuations in miners' wages, etc.

Shipments of fuel overseas.—The following shipments of fuel were made overseas during the period April 1, 1917, to July 1, 1919:

France:	Tons.	Mediterranean:	Tons.
Coal.....	62,174.00	Coal.....	9,853.00
Fuel oil.....	140,670.24	Fuel oil.....	11,545.24
England:		Azores and Bermuda:	
Coal.....	4,909.00	Coal.....	79,894.00
Fuel oil.....	511,778.65	Fuel oil.....	66,175.59
Motor gasoline.....	2,939.49	Motor gasoline.....	6,891.20
Aviation gasoline.....	1,115.00		

The appropriations by Congress for fuel for the Navy during the war were:

Act Aug. 29, 1916, fuel and transportation, 1917.....	\$5,000,000
Act Mar. 4, 1917, fuel and transportation, 1917-18.....	6,500,000
Deficiency act June 15, 1918, fuel and transportation, 1917-18.....	19,362,420
Act July 1, 1918, fuel and transportation, 1919.....	49,400,000

Total..... 80,262,420

PURCHASE DIVISION.

"The Navy took them over, and the Navy brought them back."

This is something of the inside story of how it was done. Approximately 550,000 officers and men were required for that work. In the Purchase Division

of Supplies and Accounts, a little over 500 officers, yeomen, yeomen (F), stenographers, clerks, and messengers fed, clothed, and equipped those 500,000 men. The Purchase Division supplied the ships with all their needs from bread, butter, and jam to kapok mattresses, sounding tubes, binoculars, lifeboats, and rafts. The Purchase Division bought submarine chasers for the patrol of the seas and the material for the construction of destroyers.

Almost insurmountable difficulties were encountered in getting food that was scarce, machinery, and highly technical material; resort was made to every method known or that could be devised, asking, appealing, demanding bids in personal conferences or by carefully written urgent letters, telephone, or telegraph; but the goods were obtained eventually and they were available when needed.

It was predicted early in the war that victory would be won by supplies, defeat forced by the lack of supplies; and it was on this fundamental principle that the Purchase Division worked. Each and every individual was made to feel by the officer in charge a personal responsibility to do all in his or her power to shorten and to win the war.

The secret of its success.—The secret of the success of the Navy's purchasing system lies in its lack of secrecy.

It was maintained that "things must not only be right, but look right," and to this end the public was afforded the fullest opportunity to assure itself that Navy purchasing was being conducted on this principle.

The Navy's preparation.—At the beginning of the war the warehouses of the Navy were not only well stocked but there were in the possession of the Purchase Division comprehensive statements of prospective and specifically calculated needs of supplies. For a year or more before the United States entered the war, every provision was being made to meet that contingency. Quickly and without comment, except within itself, the Navy undertook the preparation of the most exhaustive logistics probably ever prepared by the Government. This investigation embraced every important industrial establishment in the United States, a statistical report of what it manufactured, its normal daily capacity, its possible capacity working under pressure three shifts a day, its present number of employees, the approximate number it might employ if worked to its capacity, and what expansion might be made in its line of production. With this information down in black and white, calculation was made of how much production might be obtained from this or that factory, what the delivery ought to be and where every needed article could be bought. Approximate inventory was then taken of stock on hand at every navy yard and on board every ship, and estimate made of the probable supply of stock that navy yard or ship would need immediately in the event that war was declared. Some of these statements were retained in the Purchase Division; others were sent in sealed communications to the navy yards and ships. Instructions were given that these statements were only to be opened after the declaration of war. So it was that, in the hour the President declared a state of war existed between America and Germany, these envelopes were unsealed and there was laid out before the administrative officers a full and comprehensive plan of procedure. There was a complete statement as to the supplies to be carried aboard ships and in the yards' warehouses. If these supplies were not available the Purchase Division's reports showed where they could be obtained immediately. No time was wasted; the Navy was enabled to get right down to business, because it had its objective in view. The working out of plans had been started a year or more before the declaration of war; they were completed, or practically completed, not more than a few days before the presidential announcement came. That factor is principally responsible for the ease with which the Navy obtained its needed materials.

With the work so well laid out, the needs clearly defined, purposes well established, with the proper spirit and with the earnestness and industry which the Purchase Division possessed, supplies were bought, business was greatly increased, and the organization expanded from 28 people to over 500. And through it all the machinery ran smoothly.

The Naval Committee of the House of Representatives, at the end of a long and tediously minute investigation into the preparations for the great conflict, said:

"The Bureau of Supplies and Accounts has established and well deserves a nation-wide reputation for efficiency."

High lights on Navy business.—The Purchase Division places over 99 per cent of total number of contracts made by the Navy Department; buys all ma-

terials, with but few minor exceptions; has over 18,000 names on its mailing list. During the war it increased its personnel from 28 to over 500; handled an average of 624 requisitions a day from June 30, 1917, to November 11, 1918 (average in prewar times about 100 per day); entered into over 18,500 contracts; issued over 6,200 Navy orders (commandeering); increased its business from total of \$27,000,000 during fiscal year 1915-16 to over \$500,000,000 during 1917-18; purchased over \$30,000,000 worth of supplies in a single day; purchased approximately \$70,000,000 worth of supplies in August, 1918; purchased approximately \$40,000,000 worth of copper; purchased \$15,599,791.20 worth of blankets; purchased \$1,022,800 worth of corned beef in a single contract; purchased \$55,078,957.84 worth of T. N. T., \$12,900,000 of which was under a single contract; spent a grand total of \$873,544,947.78 for supplies. After the armistice it reduced its personnel approximately one-third from November 11 to January 1; made a further reduction to less than 170 at end of fiscal year; canceled 1,299 contracts; canceled 835 contracts without liability to Government, value of cancellations without liability to Government, \$23,830,163.23; canceled 194 contracts with liability (total value of above 194 contracts, \$23,681,849.16); paid for cancellation \$3,215,642.93; adjusted 5,820 Navy orders; has handled an average of 378 requisitions per day; total value of schedules and requisitions canceled after bids had been obtained, but before award was made \$57,148,487.89; realized \$4,985,618.16 from sale of surplus, abandoned, and condemned materials from December 1, 1918, to June 30, 1919; transferred material between navy yards to amount of \$7,312,296.

At the beginning of the war, the Navy had a total strength of 64,000 officers and men; at the signing of the armistice, it approximated 550,000.

In taking care of its greatly increased force, the Purchase Division employed the same methods and followed the same principles that it had followed for many years previous.

"To innovate is not to reform," said Edmund Burke. The administrative machinery was the same in the purchase of \$70,000,000 worth of supplies in a month as in the purchase of \$5,000,000. Expansion of the existing system was so logically brought about that the new ideas arising from necessity were, as a matter of course, easily followed, easily understood, and in no sense conflicting with old methods.

One of the first needs to make itself felt was a division of work into clearly defined lines and limits in order that there might be uniformity of procedure, harmony of action, and centralized authority in these little "states" or sections.

The following sections were created: Requisition, schedule, mimeograph and printing, specifications, mailing list, emergency purchase, award, contract, legal.

A glance at the above visualizes the steps taken from the receipt of a requisition to the placing of the contract and the adjustment of any legal problems which may arise thereafter.

In order, however, that the requisition may be approved for purchase in the manner calculated to bring about the best results, to secure the greatest competition, the cheapest price and the quickest delivery, and in order that the award may be made to the person offering the most satisfactory material, as judged from the positive knowledge of the technicist, the following "material" sections were established with a civilian expert or officer having an expert knowledge of that commodity at the head of each: Steel, chemical, nonferrous metals, lumber, textile (later subdivided into woolen goods, cotton goods, and clothing), provisions, hardware and small tools, ordnance material, automotive (aeroplanes and motor cars), optical glass.

In addition to the commodity sections, the following sections were formed for the purpose of handling special matters under their cognizance: Navy order (to take care of commandeering), open purchase (for the supervision of local purchases authorized at the navy yards), stock upkeep (to maintain a standard stock at the yards), salvage and sales (to dispose of or utilize excess materials, abandoned or obsolete), correspondence section.

Personnel.—The purchasing personnel expanded from 28 to over 500, approximately one-sixth of this number being officers and the remainder equally divided between enlisted and civilian employees. The civilian experts in charge of commodity sections were not dollar-a-year men, but gave their experience and broad knowledge to the Navy at salaries greatly reduced from their earning capacity in civil life and not nearly commensurate with their ability. Their connection with the Navy has been aptly termed by the Paymaster General as "outside talent with inside control."

The principles of Navy purchasing and official procedure were detailed and discussed in weekly conferences held by the officer in charge of the Purchase Division and frequently attended by the Paymaster General, at which the entire administrative force was present. A report of each conference was afterwards mimeographed and distributed to every employee. In this way newcomers became familiar with the well-defined work of each section of this large and rapidly growing organization.

Expansion of business.—The following table shows in detail the amazing expansion of business during the war and the gradual resumption of a peace-time status after the armistice—another instance where money talks:

	Value of bureau orders.	Value of Navy orders.	Value of contracts.	Total value of contracts, Navy orders and bureau orders.
1917.				
April.....				\$25,457,770.66
May.....				30,070,295.84
June.....				35,152,189.53
July.....	\$9,251.15	\$2,501,863.10	\$42,408,863.97	44,920,078.22
August.....	4,059.47	3,313,589.15	47,559,267.14	50,876,895.76
September.....	11,250.46	3,823,044.84	23,915,277.48	27,749,572.78
October.....	12,262.28	6,166,618.74	46,068,986.38	52,237,867.40
November.....	13,056.60	11,150,159.55	23,240,159.75	34,403,375.90
December.....	12,063.80	5,460,911.92	41,624,195.63	47,297,191.35
1918.				
January.....	13,724.79	3,734,518.13	19,261,760.35	23,010,003.27
February.....	15,387.01	2,116,853.56	21,319,957.42	23,452,197.99
March.....	27,476.20	5,979,969.45	48,887,731.56	54,895,177.21
April.....	28,036.69	11,794,540.76	31,349,985.24	43,172,570.69
May.....	33,537.52	10,533,894.53	42,117,510.38	52,684,942.43
June.....	30,969.80	40,986,419.82	28,977,406.13	69,994,815.75
July.....	21,734.00	15,584,544.00	41,597,898.00	57,204,176.00
August.....	20,895.00	15,299,506.00	44,552,446.00	59,872,847.00
September.....	48,330.00	13,006,363.00	27,388,904.00	40,443,597.00
October.....	33,153.00	16,564,418.00	26,700,398.00	43,297,969.00
November.....	60,350.00	8,827,078.00	48,463,886.00	57,351,314.00
December.....	43,436.13	2,602,482.78	16,660,062.12	19,305,951.03
1919.				
January.....	40,060.80	1,086,002.66	12,081,935.13	13,208,018.59
February.....	18,014.74	165,618.62	6,957,550.41	7,141,183.77
March.....	24,321.83	744,932.03	5,879,348.17	6,648,602.03
April.....	26,799.31	269,220.16	4,963,987.33	5,260,006.80
May.....	21,618.70	866,527.33	5,431,521.26	6,322,667.29
June.....	13,331.98	8,447,154.52	3,068,792.56	11,529,279.06

The first step toward purchase.—The first step toward a purchase is the preparation of a requisition by the ship, yard, or bureau which is in need of the material mentioned, the requisition definitely stating the use to which the material will be put. Every requisition is forwarded to the requisition section of the Purchase Division, which determines how purchase shall be made. It may be made either by the Purchase Division under its regular printed forms by the receipt of mailed proposals, or it may be made by the emergency purchase section, where, in case of urgent need, time is not taken to prepare and mail proposal blanks, but bids are obtained by telegraph or telephone, or it may be made at the discretion of the officer in charge of the requisition section, by the supply officer of the local navy yard concerned.

Before the war the average number of requisitions handled was about 100 per day. The total number of requisitions received and acted upon during the fiscal year 1919 was 140,249—63,070 were handled before November 11 (the date of the armistice), or an average of 3,710 per week, or 624 per day; 77,179 were handled from November 11 to January 30, an average of 2,205 per week, or 378 per day. While the above figures show that immediately upon the signing of the armistice the volume of purchases was tremendously decreased, the amount still being received is more than 300 per cent above prewar conditions.

The method of obtaining bids—Classified mailing list.—Prior to the war the Purchase Division maintained a mailing list of 12,000 names. During the war this list was expanded to over 18,000 names. To these firms was sent each week a "Notice of proposed purchases," which described the material, the quantity required, stated the schedule number under which proposals were to be ob-

tained, and the date bids were to be opened. This notice of proposed purchases was also used for the dissemination of information of a general nature, Government rulings, regulations of different governmental war organizations, etc.

The mailing-list section was established at the very outset of the war for the purpose of classifying material and manufacturers in order that proposal blanks might be forwarded to all prospective bidders in advance of the date set for the opening of bids. These proposal blanks state the quantity required, specifications for the material, conditions of delivery, special instructions as to packing and shipping, and, in fact, all the information needed to prepare bids. The Purchase Division undertook to actually place these schedule blanks in the hands of interested manufacturers, a great convenience to the bidder and a benefit also to the Government. As a result broader competition has been obtained; between 20 and 50 bids are frequently received on a single item.

The classified mailing list covers about 15,000 items, and listed under each item are the names of all manufacturers or dealers who are in a position to bid on that material.

Firms have not been placed on this list simply because they are known to manufacture or sell the kind of material specified. A card is first sent to each concern requesting information as to the exact nature of its business, whether it is a partnership, if so, the names of the partners, if a company or a corporation, the names of the officers and their official position, the location of branch offices and their managers, factory address, location of warehouses, and a complete list of all material manufactured or dealt in. If the information furnished is satisfactory and the concern stands well in its particular industry, it is then placed on the mailing list to receive all future schedules for supplies in its line of production.

Rush work.—Formerly all schedules were printed by the Government Printing Office; but, when war supplies were needed, it was impossible for the forms to be printed. A mimeograph section was thereupon established, by means of which schedules were prepared in the Purchase Division, distributed, and sent out within 24 hours. These rush schedules were distinguished from material needed for stock and for which there was no particular hurry by adding "one-half" to the schedule number.

Materials in any degree special for actual war use, such as for munitions, submarine chasers, chemicals, and steel were covered by the half-numbered schedules and proposal blanks were sent only to a limited list of the most reliable firms. Anybody might come to the public counter inside the "open door" and obtain proposal blanks of even-numbered schedules. A request for the half-numbered schedules however had to be approved by the commanding officer or the chief clerk.

The open door.—The space set aside for the public was inside the much-talked-of "open door." During the war when the danger of spies was ever present, this was the only door in the Navy Department through which entrance might be gained without an official pass. A large space was inclosed by tall, broad counters upon which were placed the record books of the office and several clerks were assigned to the duty of furnishing any information which the interested public might desire.

The reading and recording of the bids received at a single opening frequently required the exclusive attention of half a dozen people for an entire day. As many as 400 bidders quoted on one day's opening, which might cover from 50 to 80 schedules, each schedule containing from 1 to 20 classes and each class anywhere from to 50 items. A single class sometimes contained over 100 items for such material as drills in different types and sizes.

The emergency purchase section.—Primarily the most important function of the emergency section was to cooperate closely with the fleet abroad and at home and to act immediately upon all requests from Admiral Sims. Except in cases involving special material which had been designed and perfected by only one concern in the United States, and the requisition for which had been approved by the Secretary of the Navy for direct purchase from that firm, competition was obtained on emergency purchases as broadly and fully as on regularly scheduled purchases. While emergency purchases were given a schedule number of the designation 900—for filing and identification purposes—schedules were not actually prepared but a description of the material incorporated in a letter, or more often a telegram, and sent to all reliable firms. An opening date was set as in the cases of regular schedules, except that it was not limited as to hour or date and bids were requested by telegraph, it being usually impossible to give more than two or three days for their preparation

and submission. In the most urgent cases where quotations had to be obtained by long-distance telephone, firms in a position to bid would be telephoned to for quotations and the regular procedure followed in making award to the lowest satisfactory bidder.

In one instance, a ship bound for Europe sent a radio that certain boiler tubes were damaged and that she would be compelled to return to port the following day for repairs. This information was relayed to Washington, the material located in New York, delivered the same day by auto truck to Philadelphia, and the tubes were awaiting the ship upon her arrival the following morning.

Open purchases.—The amount of purchases which the supply officer of a navy yard or station can make locally is limited and usually covers materials or services for which there is an unexpected need or which, in case of materials, are ordinarily not carried in stock. The open purchase section of the Purchase Division exercises administrative supervision over all such purchases. Except in cases of purchases of minor importance the bids are forwarded by the supply officers to the Purchase Division for examination and approval; and by this method uniformity of action and adherence to the Navy's purchasing principles are maintained.

Navy order.—A two fold responsibility rested upon the Purchase Division, in that it must not only obtain the necessary materials but at fair and just prices.

When reasonable bids could not be obtained through competition, resort was had to a Navy order, which was a form adopted for use in exercising the commandeering authority which was vested in the heads of the Government departments by act of Congress. This method of obtaining material was generally necessary where the law of supply and demand was no longer applicable. The order was, however, used more often for the obtaining of materials where price could not be determined at the time of its issue; i. e., it simply served to secure the required services of material pending cost investigation or other method of arriving at the just compensation to be paid therefor. The order is mandatory upon the recipient and must be accepted and filled regardless of the question of price. Pending the fixing of a final price, a tentative payment was provided for which would at least reimburse a contractor for his costs.

Price fixing.—Besides investigations conducted by the Navy's cost inspectors at manufacturing plants, final prices were frequently fixed by the General Price Fixing Committee of the War Industries Board, the Food Administration of the Food Purchase Board. The Federal Trade Commission also conducted exhaustive investigations into the costs of production of various materials and its reports were of invaluable assistance to the Navy and the price-fixing agencies of the Government. Where commodities were seized from stock, price therefore was generally reached by agreement with the owner; but, where this method failed, the price fixed by the Navy was based on such cost data as was available. The use of the Navy order had a marked effect upon the market, tending to prevent inflated prices and the hoarding of materials which were needed for war purposes.

In this connection, it is interesting to note that a very considerable quantity of machinery, tools, and other needed materials held in warehouses along the Atlantic coast for overseas shipment, in many instances undoubtedly for enemy interests, were seized through use of this order. Information as to the value and location of such stocks was received from customs officials at the ports and war intelligence sources. Lists of the materials were made and forwarded to the Navy Board for Commandeering, which was established in New York City. Where materials were likely to be needed, the Purchase Division immediately issued restraining orders on the firms in whose names the material was being held to hold the stock subject to the Navy's further order.

This was not in effect a commandeering order, but merely for the purpose of preventing the shipment or other disposition of the material until it could be ascertained whether it was required for naval purposes. To obtain full and complete information on this point, lists of the articles were sent broadcast to all supply officers of navy yards and stations for their inspection and report as to what material was needed. If the material was required, a formal commandeering order was issued; if not, it was released. The possession of this large quantity of material already manufactured greatly relieved the pressure on an already overtaxed manufacturing situation.

Price fixing or price control was exercised by the Navy or other Government agencies acting under the authority conferred upon them by the President in

connection with the following: Acetate of lime; alcohol; aluminum; binder twine; cotton lintors; canvas; cement; hemp; hides; iron ore; iron and steel bars, shapes, etc.; lead; lumber; manganese; meats; mercury; mica; monel metal; nickel; nitrate of soda; coal; coke; copper; electrical conductor cable; fuel oil; flour; fruits, tinned (and all other foodstuffs); pig iron; platinum; rails; rubber; sugar; sulphur; tin; toluol; vegetables; wire rope, steel; wool; zinc.

An interesting instance of the actual seizure of food was in January, 1918, when 42,000,000 pounds of beans, which had become very scarce in this country, were commandeered by radio before the ship reached port in California, this being a joint Army and Navy action. The sale of these beans had been contracted for to private interests, and title would therefore have passed upon the docking of the vessel at a United States port. Due to foresight, however, and prompt action, this food was secured for our Army and Navy.

While the mandatory power was exercised with the greatest discretion and care to see that the seller was equitably treated, there is no doubt that it exerted a far-reaching moral effect on industries and on the market.

The high cost of living.—The problem of the high cost of living confronted the Navy as well as our citizens. The Navy order, however, was every effective as a restraining influence on the price of foodstuffs, the bulk of its provisions being obtained in that manner. While market prices were abnormally high and a scarcity existed in many articles of the Navy ration, the Purchase Division was able to secure at all times every needed kind of food, there being always maintained several months' supply to meet service contingencies.

Comparative prices of Navy purchases.—The following is a small list of widely varied supplies purchased by the Navy, showing comparative prices during 1916, 1917, and 1918:

	1916	1917	1918
Binnacles, Type VII.....	\$295.00	\$364.00	\$395.00
Biscuits, tinned..... per pound..	.079	.1547	.14
Blankets.....	4.40	6.40	7.81
Cement, Portland..... per pound..	1.47	1.39	1.75
Chair, barber.....	42.25	44.00	47.50
Circles, azimuth..... do.....	45.00	62.50	45.00
Clay, fire..... per ton.....	8.25	9.25	12.00
Extinguishers, fire..... each.....	12.18	12.50	12.64
Ferrules, rubber..... do.....	.04	.0475	.035
Glycerine..... per gallon.....	5.237	6.995	6.4925
Lard substitute..... per pound..	.1715	.225	.2375
Lye..... do.....	.0773	.0725	.0725
Neckerchief..... each.....	1.12	1.12	1.23
Oakum, spun..... per pound.....	1.697	1.625	1.55
Oil, rapeseed..... per barrel.....	.90	1.90	2.25
Packing, flax..... per pound.....	.5075	.65	.78
Packing, rubber..... do.....	.96	1.06	1.09
Paint, aluminum..... per gallon.....	3.05	3.75	3.80
Pork, salt..... per pound.....	.15	.2787	.2557
Rice..... do.....	.0335	.0688	.0739
Sausages..... do.....	.3186	.3338	.3942
Sheeting..... per yard.....	.2968	.40	.53
Shells, afterbody..... each.....	75.00	75.00	75.00
Shoes, high..... per pair.....	3.89	4.83	6.36
Soap, salt water..... per pound.....	.058	.059	.0765
Socks, cotton..... per pair.....	.19	.1975	.23
Spyglasses..... do.....	11.75	14.80	14.50
Stadimeters..... each.....	130.00	138.00	130.00
Stands, music..... do.....	1.00	1.50	.81
Stretcher, splint..... do.....	25.00	24.00	16.90
Sugar..... per pound.....	.064	.0765	.087906
Sulphur..... per ton.....	24.11	30.51	55.00
Sand, carborundum..... do.....	62.42	77.30	75.46
Hose, fire..... per foot.....	.481	.74	.84
Tachometers..... each.....	50.00	57.50	56.00
Tea..... per pound.....	.20	.33	.27
Tubes, sounding..... each.....	.15	.19	.23
Ticking..... per yard.....	.18	.30	.43
Salt..... per pound.....	.06	.08	.10
Varnish, asphaltum..... per gallon.....	.36	.58	.45
Varnish, damar..... do.....	1.037	1.19	1.50
Varnish, mixing..... do.....	.68	.71	.76
Varnish, interior..... do.....	.932	1.00	1.125
Varnish, spar..... do.....	.936	1.25	1.50
Tin, phosphor, ingot..... per pound..	.55	.57	.81

Wool and canvas problems.—Early in the war, wool was scarce and of inferior grade; and where the Navy was to obtain the quantity necessary to meet its requirements in order to maintain the high standard of its cloth and at the same time prevent undue rise in the market was a perplexing problem. The use of shoddy or reworked wool was considered undesirable; Navy needs must be met with specification woolen material.

Negotiations were entered into with the British Government which resulted in the purchase of 25,000 bales of high-grade Australian wool. The price agreed upon was the same as that charged by the British Government to its own manufacturers of military garments and was practically based on cost. Due to having this quantity of raw wool on hand, the Purchase Division in its next schedules for woolen goods requested the bidders to state their prices to manufacture the cloth under two conditions, i. e., they to furnish the wool or the Government to furnish it. The fact that the Government could furnish it and at a decreased price had a pronounced influence on the quotations submitted by the manufacturers for the finished cloth and resulted in prices much lower than otherwise could have been obtained, this being particularly true where the bidder offered to supply the wool himself, and most of the contracts were based on this arrangement. Owing to the beneficial results so obtained, the Navy later purchased an additional quantity of wool which was more than sufficient to meet all subsequent requirements during the war.

This wool was also used in the manufacture of specially heavy woolen clothing, at a cost of \$3,000,000, for use by men on destroyers operating in the North Sea or areas where they were subjected to very cold weather. The Navy manufactured the greater part of its clothing in its own factories, blue uniforms being manufactured at the clothing factory, fleet supply base, South Brooklyn, N. Y., and white uniforms at the navy yard, Charleston, S. C. Some contracts were made, however, with contractors for the assembling and sewing of garments, the Navy furnishing the material already cut to pattern for that purpose. Sufficient clothing was always on hand to meet the rapidly growing requirements of the Navy, there being July 30, 1918, a sufficient quantity of garments of every kind to meet the needs for a period of six months to a year.

The Navy spent \$15,599,791.20 for blankets alone; and there never was at any time a shortage of this article.

Owing to the limited manufacturing facilities in the country for the production of canvas, a shortage was foreseen; and as early as August, 1917, 10,000,000 yards of this material were contracted for by the Purchasing Division. But for this wise action early in the war, there would not have been sufficient stocks to meet the subsequent heavy demands for this material.

Supplying essential needs in copper, tin, and other nonferrous metals.—War needs early necessitated a Nonferrous Metals Section to handle the purchasing of shells, cartridge cases, brass and copper tubes, powder tanks, rotating bands, submarine nets, steel-wire rope, tin, copper, zinc, lead, and cement, and other important items. Copper was the most important metal entering into the manufacture of these essential materials, and it was evident that the production of this metal was not sufficient to meet all demands. Therefore, April 6, 1917, a contract was drawn with the copper industry for 20,000,000 pounds of copper at \$0.166739 per pound, the market even at this time having rapidly and steadily advanced to a point where this price was exceptionally advantageous as compared with a market price during a period of its use of approximately 30 cents per pound. Requirements of manufacturers for copper to be used in finished products were met by the Navy, resulting not only in a saving in price, but insuring early delivery—a factor of the greatest importance. Between April 6, 1917, and November 11, 1918, 200,000,000 pounds of copper were purchased by the Navy. Early in the war copper prices were reached by agreement with representatives of the industry; later the price was fixed by the price-fixing committee of the War Industries Board.

Technical experts in the Nonferrous Metals Section rendered the most valuable assistance in the study of trade and market conditions, in the preparation of statistics as to the production and consumption of materials with relation to the needs of the United States, the location of available material, transportation problems, and the maintenance of sufficient stores. While most of the nonferrous metals and materials in the production of which they were necessary were obtained after open competition, in some instances it was necessary to exercise commandeering powers.

The commandeering of tin in the early part of 1918 furnishes an interesting example of the benefits obtained through this power. Though the market

price was unreasonably high, tin was scarcely obtainable and investigation disclosed the fact that large stocks of tin were being held by brokers with the evident purpose of further inflating the market. The Navy, therefore, issued blanket commandeering orders to numerous firms covering all tin in their possession. Where it could be shown that the tin so commandeered was intended for war purposes, it was released. The major part of it was, however, distributed to the Army and Navy contractors, particularly the shipbuilding concerns who were in urgent need of this metal for different purposes in connection with construction of destroyers and other vessels.

The Navy's action also resulted in an increased supply, holders—through fear of commandeering—placing their stocks upon the market and at prices much lower than had prevailed for some time previous.

The story of steel.—Owing to the enormous demand for iron and steel products, it was early evident that the steel industry would be taxed to the utmost, and that only by the most careful placing of orders with a view to the maximum of output could the war requirements be met. A steel section was, therefore, formed under the direction of a civilian expert, later commissioned a lieutenant commander in the Reserve force. This section acted in an advisory capacity with respect to all questions relating to the purchase of iron and steel products, chain, machine tools, cranes, railroad equipment, locomotives, and cars.

Immediately after the declaration of war in April an agreement was made with the United States Steel Corporation for 300,000 tons of various rolled-steel material at prices much below the prevailing market. This material took care of the immediate needs of the Navy; subsequently, however, the War Industries Board found it desirable to form a steel commodity section in order to properly distribute the supply to meet the requirements of the Government and the Allies. The chairman of this section was known as the director of steel supply, who handled the allocation of orders to the manufacturers. The steel section of the Purchase Division worked in close harmony with the corresponding commodity section of the War Industries Board, and the Navy's requirements were fully provided for at all times.

All requests for steel commodities were passed upon by the steel section, which specified the method by which materials were to be obtained, either by purchase or by allocation.

One of the most trying situations early confronting the Navy was with respect to the shortage of plants for providing large forgings, particularly for destroyer shafting. Available plants were being taxed to their full capacity to supply the large quantity of such shafting necessary, incident to the destroyer building program.

Another proposition of paramount importance in this connection was where to obtain the heavy machine tools needed for the manufacture of these heavy shafts and of large-caliber guns.

In an effort to develop new sources of supply, a joint investigation into the cost and processes of manufacture of destroyer shafts was made by representatives of the Bureau of Steam Engineering and the Purchase Division of Supplies and Accounts. This investigation resulted in a plan to build and equip three new forging plants, using open-hearth steel furnaces and equipped with their own machinery and heat-treating facilities, the plants to be operated under the management of experienced manufacturers. A fourth plant already projected by another manufacturer was also promptly accepted on the same conditions and placed in operation. This plan did not involve the establishment of new companies but the financing by the Navy of additions to plants already in existence and producing similar material. In making these arrangements it was agreed that after a certain profit had been realized on output the manufacturers were either to buy outright the plant additions which had been erected by the Navy or else the Navy might take the removable portion of the plant, machinery, equipment, etc., for utilization at the navy yards. The erection of these plants was commenced October 17, 1917, at which time appropriations were made available. The first came into operation three months later; the second, a little over four months later; the third, the largest and most complete of its kind in the United States, representing an expenditure of \$6,000,000 and equipped with entirely special machinery made during the period of the construction of the plant, was completed within less than seven months. The fourth plant, in connection with which the Navy only rendered assistance, was ready for operation within eight months. With the completion of these plants, the production of de

stroyer shafting became a matter of mechanical possibility and reality. This was a large and highly successful business undertaking on the part of the Navy.

The Steel Section initiated the purchase of a quantity of unusual material, such as structural steel for wireless towers in France, 14-inch railway mounts, and 7-inch tractor mounts. This section also prepared Navy orders to the value of \$11,000,000.

Chemicals and explosives.—It was not only for the production of steel that the Navy was forced to finance and build new plants, but also for explosives, of which there would have otherwise been an acute shortage. These additions were made to existing explosive plants, and the projects, which ran into millions, were initiated by the Chemical Section under the direction of a civilian expert, later commissioned a lieutenant commander in the Naval Reserve Force. The major items handled were explosives, propellants, such as trinitrotoluol, ammonium picrate, and smokeless and black powder, also coke, acids, and alkalis.

About 700,000 pounds of trinitrotoluol were purchased monthly up to January, 1918; and just before the signing of the armistice production had been increased to 1,700,000 pounds and was fast approaching 2,000,000 pounds monthly. The Navy's purchases of trinitrotoluol alone amounted to over \$55,000,000.

The development of trinitroxylol, which was used as a substitute for trinitrotoluol, and particularly as a mine filler, greatly augmented the available supply of high explosives.

During the year 1917 there was a greatly diminished mining of cinnabar (the principal ore of mercury). Previous to this period the American product could not be produced at a cost comparable with that of Spain, because of higher labor costs and the low percentage of mercury in the ore. Therefore, most of America's requirements had been imported. Our urgent war needs, however, demanded local production, and the Government fixed a price therefor which would allow local producers their costs plus a reasonable profit. The results were very satisfactory, and production increased from 16,485 flasks in 1914 to 33,351 flasks in 1918, in which year the country was supplying its total demands from local production. Because the Purchase Division had been instrumental in increasing production, it handled all the requirements of the war and other Government departments for mercury.

Negotiations with the British Government for a supply of mica were also conducted by the Chemical Section, and all Government agencies obtained their requirements of mica through this section. This mica was furnished by Great Britain at the same prices as quoted British consumers.

Other important commodities the purchase or procuring of which was handled by this section included paints, pigments, varnishes, kapok, hemp, coal-tar products, ferro alloys, and such chemicals as entered into the manufacture of explosives or signal rockets, which latter article played a most important part in the Navy's successful warfare against enemy submarines. Certain of these materials were purchased through allocation by the War Industries Board, others after competition in the market.

Lumber.—The demand for lumber for use in the construction of boats and aeroplanes constantly increased up to the signing of the armistice. A civilian of many years of experience in the lumber business and thoroughly familiar with conditions in that industry, was placed in charge of a lumber section. At no time did the Navy lack an ample supply of lumber of the grades desired; and lumber inspections during war times remained as rigid as during peace times.

Aeroplane spruce was one of the most vital needs and much more difficult to secure than other kinds of lumber. Its production was limited and the prices for the better grades excessive. The Navy being unable through the usual channels to get a sufficient quantity of satisfactory grade, the lumber section in close cooperation with the Bureau of Construction and Repair took action toward directly procuring this material. Navy representatives were sent to New England, which up to this time had not been a source of supply, to personally interview the leading manufacturers of spruce timber; and agreement was reached as to specifications and methods to be used in the milling of this spruce on a cost-plus basis. Formal contracts were drawn direct with these manufacturers, and the first month's operation netted a production of 1,500,000 feet. The prices paid were comparatively low, grade A being obtained at \$125 per thousand feet, grade B \$110, and grade C \$100 per thousand feet; whereas this material had been formerly obtained from western manufacturers at prices ranging as high as \$643.80 per thousand feet for

grade A, \$350 for grade B, and \$186 per thousand feet for grade C. The use of New England spruce was especially desirable because of the accessibility of this section to eastern manufacturers of aeroplanes and the short hauls involved in delivery; and its use in the construction of Navy planes proved most satisfactory. The British Government purchased 1,000,000 feet, later entering into contract for 3,000,000 feet additional, with the option of increasing this quantity to 6,000,000 feet.

The North Sea mine barrage.—In order to transport our troops to Europe and provide for their maintenance, it was incumbent upon the Navy to take every possible step to curtail the U-boat menace. The Bureau of Ordnance, therefore, conceived the plan of laying a mine barrage across the North Sea to debar the progress of the German submarines from their bases in that locality into the channels of commerce. This was a project of the greatest magnitude, and the Purchase Division was instrumental in obtaining the material for the mines. An officer of the Purchase Division was assigned to this work, which was his exclusive duty. Time was such a vital factor that, in company with representatives of the Bureau of Ordnance, he proceeded to plants in a position to manufacture the mines and arrangements for their special production and transportation to the seaboard were effected.

One hundred and twenty-five thousand complete mines were purchased at an approximate cost of \$40,000,000, for which 182 contracts were issued. All of the material entering into the manufacture of these mines was purchased after competition, where practicable; and, as secrecy was essential in connection with the entire project, bids were opened only in the presence of interested bidders and records kept in special books, which were not available to the public, although the procedure governing competitive bidding was zealously guarded.

These mines were a new commercial proposition, as prewar requirements had been supplied from the Navy's own shops at the Norfolk Navy Yard. It was, therefore, necessary to convert plants already in operation and experienced in metal work for the manufacture of anchors and other similar parts, and the automobile industry proved to be the best equipped for this purpose. For charge chambers bids were invited from steel, barrel, and other manufacturers engaged in deep drawing steel and gas welding processes.

While a considerable range of prices was quoted on these mine parts, through the lack of knowledge on the part of manufacturers of their cost of production, the Navy, through actual-cost data available as a result of its own experience in manufacturing mines, assured itself of obtaining a reasonable price in all instances.

Legal matters.—During the period prior to the outbreak of the war, when the total personnel in the division numbered less than 30, legal matters were handled under the supervision of a civilian who had been in the Government service for many years and was an authority on the Navy's purchasing principles.

With the outbreak of hostilities, problems with respect to the interpretation of contracts, or the cancellation thereof, grew so numerous and weighty as to require a considerable additional force and the formation of a legal section. The pressure on this section was very great during the prosecution of the war, but it reached its climax in connection with the cancellation of contracts after the armistice. While action toward cancellation was in general taken by the sections which had originally placed the contracts, and were therefore familiar with every phase thereof, the legal section had cognizance over the legal features and general procedure relative to considerations involved in adjustments.

All outstanding contracts for strictly war material were immediately investigated after the signing of the armistice, with a view to cancellation, if practicable and desirable. The first step was the sending of a telegram, carefully worded and in the following form in all instances, in order that action might be uniform:

"Instructions are hereby given to discontinue all work under contract (Navy order) No. — as soon as practicable. No further expense is to be incurred for material obligations for Navy account under said contract (Navy order). Contractor will not maintain in any way readiness to resume operations under this contract (Navy order). Will cancellation without further adjustment be agreeable? If immediate cancellation not agreeable, request you forward immediate suggestions for adjustment to be considered in the event of future cancellation. Also advise regarding your labor situation and whether other work in plant or in prospect will entirely utilize your labor."

From the above it will be seen that cancellation was not immediately effected, but all work stopped, investigation made, and suggestions obtained from the contractor as to adjustment. If the contract could be canceled without liability or at a reasonable cost to the Navy, it was done. Material which had already been manufactured was accepted and paid for. Raw materials on hand ready for manufacture were either accepted and paid for or the contractors allowed to keep them at a fair valuation. In many cases where it was more economical to do so contractors were allowed to complete the contracts or stated portions thereof.

Approximately 1,299 contracts were canceled or partially canceled. Of this number, 835 were canceled or partially canceled without liability or cost to the Navy at a saving of \$23,830,162.23. Cancellation or partial cancellation of 194 contracts amounting to \$23,681,849.16 was affected at a cost of \$3,215,642.93 to cover raw and partly finished material taken by the Government, overhead expenses, depreciation in market price, or difference between cost and salvage value of material retained by the contractors and cost of machinery and buildings taken over or partially amortized by the Navy.

Twenty cost-plus contracts were canceled, the adjustment and cancellation value of which have not yet been determined, pending partial completion or cost investigation. At the close of the fiscal year 1919, there were also outstanding 180 contracts upon which agreement as to final settlement had not yet been reached.

Salvage and Sale Section.—The Navy realized \$4,985,618.16 from the sale of used or obsolete material from December 1, 1918, to June 30, 1919.

There were, of course, surplus stocks of some strictly war materials on hand at the cessation of hostilities. In order to realize the greatest possible advantage or effect the greatest economy, the Salvage and Sale Section was expanded to embrace all surplus, used, condemned, abandoned, and obsolete Navy-owned material.

Boards of survey, appraisal, and sale were, in accordance with the recommendation of the Paymaster General of the Navy, appointed by the Secretary of the Navy to survey and appraise surplus materials in the first, third, fourth, and fifth naval districts at Boston, New York, Philadelphia, and Norfolk, respectively, where most of the material was located, much of it having been returned from Europe.

After the material has been surveyed and appraised, it is reported through the proper channels and disposed of by transfer to stock at some yard where it can be used or by sale. These sales comprise every kind of material from machinery to food, there being quite an excess of the latter, owing to the sudden reduction in Navy personnel. Provisions to the value of \$3,800,000 were sold at cost or above to the allied Governments, relief commissions, etc. The Navy employees have received considerable benefit from the sales of food, textiles, and clothing, sales being made to them at the navy yards at cost. Other materials, however, have been sold to the general public, and in some instances at prices much above original cost. Close study of the market and selling at the most opportune time has resulted in realizing the best prices.

From a sale of blue flannel, which had been brought from various sources during the war at a total cost of \$1,976,692.20, the Navy received \$2,356,250.79, netting a profit of \$379,558.59, or 19½ per cent.

A quantity of raw wool, which the Navy had imported from Australia and for which there was no further need, was sold at several public auctions in Boston, over \$7,000,000 being realized from the sales, and every lot offered brought most favorable prices.

The laws governing sales by the Navy are much the same as those governing purchases. The widest possible competition is obtained through advertising in the public press and by the issuance of schedules to prospective bidders whose names appear on the large mailing lists maintained by each board and by the Purchase Division. While sales are generally conducted by means of sealed proposals, auction sales have been held in a few instances with a view to determining which method secured best results.

Navy orders, old and new.—Of the 6,200 Navy orders placed during the war, all have been adjusted except 380, on which investigations as to cost are now being made for the purpose of fixing final price.

While the commandeering power is still retained by the Government, it has been seldom used since the armistice.

However, it was necessary toward the close of the fiscal year 1919 to place Navy orders for fuel oil for west-coast delivery, because the prices quoted under

competition were believed to be excessive and were, in fact, much higher than the prices quoted and accepted for east-coast delivery.

The eyes of the Navy.—The Navy's need for binoculars and telescopes, spy-glasses, sextants, and chronometers could not be met by purchase, the production of these articles being far short of immediate and urgent needs at the time the enemies' submarines were most active. The only solution of this difficulty appeared to be by direct patriotic appeal to the people to loan private-owned instruments in order to provide "eyes for the Navy."

This idea originated in the Purchase Division and was followed by an appeal through the newspapers, by highly decorative posters which circulated generally, and through the efforts of the four-minute speakers. In response, 51,217 instruments were received at the Naval Observatory, of which 31,000 glasses were accepted after careful test and then issued to ships. Those unsuitable for naval use were returned to their owners by registered mail; for those accepted \$1 was paid in order that title might legally pass to the Government, this sum being considered as the rental price of the instrument, or in case of its loss as the purchase price. In every case a letter of appreciation was forwarded over the signature of the Assistant Secretary of the Navy to the donor. A serial number was engraved upon each instrument accepted and a description filed in the records of the Naval Observatory, with a record of its disposition. By this means each instrument still in existence will be traced and returned to the donor, together with a history of the use to which it has been put during the war and a recital of any incidents of interest or importance in which it played a prominent part.

Elimination of brokers.—During the period of the war the activities of brokers, commission men, and contingent-fee agents were curtailed to a minimum, due to Government regulation of industries and other causes—the Navy being especially free from their importunities, owing to the fact that firms of this nature have not been placed on the mailing list for many years past and only a small number remained thereon at the outbreak of the war.

Of these latter firms, many were debarred during the period of the war for default in delivery and other causes, including attempted fraud. Following the armistice, however, the few remaining brokers on the mailing lists immediately submitted bids in large numbers and covering all character of supplies at one opening, a considerable percentage of the bids being from these concerns.

It was obvious that the acceptance of such bids would result in an intolerable condition wherein a few firms of the above nature, owing to their being the only ones on the Navy's lists, would be in the position of having a monopoly. Furthermore, such a condition would tend to destroy the confidence and prestige which the Navy had earned among reliable and legitimate contracting concerns in all lines of industry.

The Navy, therefore, refused to accept any further bids from such agencies and eliminated all such firms from the bidding lists, thereby strictly complying with section 3722 of the Revised Statutes, which provides that:

"No person shall be received as a contractor who is not a manufacturer of, or regular dealer in, the articles which he offers to supply."

Following this action, persistent efforts were made by these brokers, agents, etc., to be restored to their former status as bidders to the Navy, but without success; and, as other Government departments have taken similar action, it is more than likely that this will become a uniform governmental attitude toward all such agencies in the near future.

As a protection against future dealings with contractors whose services have proved unsatisfactory, the Navy maintains a debarred list which at present contains the names of 231 concerns. Action toward debarment is not taken until all the circumstances relative to the contractor's failure to carry out his contractual obligations have been fully reviewed and he has been given every opportunity to present any information which might in any way be extenuating.

Navy purchasing.—While the volume of Navy purchasing has decreased materially since the signing of the armistice, it is hardly possible that it will ever reach the low prewar level, as the people of this country are proud of their Navy and will undoubtedly maintain it at a size in keeping with the important position the country has taken in the conduct of world affairs.

However, as Navy purchasing methods have passed the acid-test of actual war conditions, it will only be necessary in the future to make such constructive improvement thereupon as occasion may require and diligent application can accomplish.

FLEET DIVISION.

Although the ultimate strength of the Navy greatly exceeded the prewar logistic estimates, the plans were based on the secure foundation of practical experience and a broad conception of war-time demands, so that in general an orderly expansion only was necessary to efficiently handle the increase in the quantities of articles required. The magnitude of the work and the results obtained in furnishing the Navy with provisions and clothing adequate at all times for its needs can better be appreciated by keeping in mind the fact that it increased from a total personnel of about 60,000 men on the date war was declared to nearly 500,000 at its conclusion. To successfully supply all units of the fleet and the shore establishments with the provisions necessary for their subsistence and with uniforms and clothing adequate for their needs, at the same time avoiding an accumulation of these things in excess of prospective requirements, especially at a time when it might properly be said that the world's resources for articles of this nature had to virtually be pooled and distributed with the greatest exactitude not only to supply our own and the allied armies and to relieve distress among the vast civilian populations abroad but also that the market might not be abruptly and seriously disturbed, rendering prices prohibitive, it was necessary to prepare the Navy's estimates of prospective purchases from time to time of these necessities from an exact knowledge of its needs.

Provisions.—This was rendered comparatively easy by tables that had been prepared in advance for this purpose; one being a 30-day provisions list, showing the quantities of 65 different articles of provisions, which go to make up the Navy ration, required to subsist from 1 to 9,000 men for 30 days and by which the quantity of provisions required for any number of men for any length of time could be accurately computed in a few minutes. The other was a table showing the summer and winter clothing requirements for 1,000 men and 100,000 men; and this proved to be a useful guide for ships in laying in symmetrical stocks, and to the department in estimating the Navy's total requirements in advance.

With the assignment of destroyers and other fighting ships to European waters a few weeks after the declaration of war and the constant and rapid increase in the number of these units dispatched abroad to actively cooperate with the allied navies in the war zone and elsewhere on patrol and other duty, and due to the establishment of the large number of air stations and other naval bases abroad, it became necessary to increase our facilities for loading supply ships to keep the overseas forces supplied with provisions, clothing, and the thousands of other articles required for the work upon which they were engaged. Authority was accordingly obtained to lease a large pier from the city of Brooklyn, ideal in size and location for the Navy's use. This pier, located at the foot of Thirty-fifth Street, was large enough to accommodate about eight supply ships, of the *Culgoa* type, loading at the same time. Complete cargoes of provisions (exclusive, of course, of refrigerated meats and fresh vegetables) for loading four supply ships of this size were maintained at all times on the pier, replacements being made as soon as cargoes were loaded. As a direct result of the acquisition of this pier and the policy of maintaining on it at all times complete cargoes of provisions, supply ships were loaded with the utmost dispatch and the work of keeping our naval forces abroad at all times adequately supplied with all necessary provisions and clothing was greatly simplified.

The acquisition of cold-storage space by the Navy contributed very materially to the efficient provisioning of troop transports as well as supply ships which theretofore were forced to depend upon the willingness and often questionable ability of contractors to supply the large quantities of refrigerated products required. It was frequently necessary to place emergency orders for such products with little or no advance notice, so that the contractors were not always at fault when they failed to make deliveries on schedule. By purchasing large quantities in advance for storage in refrigerating plants under Navy control, emergency requirements for large quantities ceased to be a problem and the transports and supply ships as well as other vessels of the Navy were supplied with meats strictly up to the specifications in every respect, the serious delays incident to rejections and delayed deliveries under the contract system thus being avoided. In addition to these important military features, a considerable economy was effected by single purchases of such large quantities, although later on this was neutralized to some extent by the price-fixing policy which extended to these products.

Ships' stores stock.—Due to the short stay in port of the vessels of the transport service and on account of the restrictions placed upon the manufacture of candles and cakes by the Food Administration incident to the shortage of sugar, the fleet-supply base at New York was authorized to procure and maintain a large and complete assortment of ships' stores stock. This method proved to be particularly satisfactory and thereafter no transports or other vessels left New York without an adequate stock of these supplies, which aid so much in the comfort of the enlisted personnel.

Clothing.—The increase in the enlisted strength of the Navy was so rapid that the facilities of the naval clothing factory at Charleston and the factory at New York had to be expanded to the limit, and even then it was not practicable for the Charleston factory to keep pace with the demands for white uniforms and dungarees. In June, 1917, there were employed 604 operatives and the factory was placed on a two-shift basis of 10 hours each. At about this same time, the Secretary of the Navy authorized the erection of a temporary structure as an addition to the factory, at a cost of \$25,000.

In the meantime, however, it was necessary to place contracts in New York to augment the production of these garments. The manufacture of nainsook drawers was discontinued altogether at Charleston in order to concentrate on the manufacture of the more important articles of uniform. The contracts for the manufacture of the nainsook drawers at New York were for the labor only, the nainsook being furnished from the Navy's stocks.

The contracts for the manufacture of the white uniforms and dungarees covered only the sewing of these garments, the materials being furnished from Navy stocks and the cutting done in the clothing factory at Brooklyn, in the same manner that this work is done in the production of blue uniforms.

The operations of the New York factory are confined to cutting, baling, and distributing, the sewing of all garments being done outside by the piecework system in normal times. This system during the war, however, had to be supplemented by placing large contracts outside for the sewing of garments cut in the factory, including both blue and white uniforms as well as dungaree garments, blue caps, and white hats.

The American Can Co. building at Forty-third Street and Second Avenue, Brooklyn, with a total floor space of over 400,000 square feet, was leased and devoted exclusively to the clothing and small stores activities. On the sixth floor of this building, there is installed the largest garment-cutting plant in the country, with a capacity for cutting more than 42,000 complete garments daily. The facilities of this plant were adequate to meet all demands during the war and the contractors who put these garments together were kept supplied to the capacity of their sewing rooms.

In addition to cutting, inspecting, baling, and storing in this building, all uniforms, both blue and white, made at New York, all of the stocks of manufactured articles purchased in the open market, such as shoes, socks, jerseys, underwear, gloves, etc., were received, inspected, stored, and issued from this building.

With reference to these latter articles, especially underwear, shoes, and socks, as well as uniform materials, such as 18-ounce cloth for blue trousers, 30-ounce cloth for overcoats, etc., some difficulty was experienced in obtaining adequate supplies in time to meet the seasonable demands of the personnel of the fleet and the training stations. The situation with respect to several of these important articles became so acute that about 10 young officers of the Supply Corps were sent from Washington to the factories and mills of the contractors to personally represent to the owners, as well as the employees, the Navy's immediate need for the utmost production of which they were capable.

These officers did not confine their representations to the owners but went out into the mills and factories and addressed their pleas direct to the workers, telling them that the Navy looked to them individually to increase their production by staying on the job and keeping everlastingly at it for the sake of the men who were keeping the ocean lanes safe for our troopships and commerce. These messages carried home, and a great stimulus was felt all along the line.

To give further effect to the close contact established between the mills and factories and the Navy, a system of weekly production cards was introduced. The cards were printed to show the quantity of the various articles shipped each week, en route, etc., and were mailed weekly to the department by the contractors. From these cards charts were made up for each article, showing by

accurately plotted curves the rate of production and delivery. They constituted a most effective means for keeping the department constantly informed of the rate of production and considerably accelerated the work of meeting urgent demands.

Feeding the troops.—Upon decision that the Navy was to operate the troop transports the Paymaster General nominated a board of three senior supply officers for the particular purpose of considering all questions in connection with the subsistence of the troops en route and to prepare a standard bill of fare for use on all transports alike. This bill of fare was prepared and approved, showing exactly what was to be served to the troops for every meal for a 14-day period (the maximum time estimated to be required to make the trip across), and because of the natural interest which is attached to it this bill of fare is reproduced in this historical sketch so that it may be made a matter of permanent record:

BILL OF FARE FOR SHIPS 14 DAYS AT SEA.

First day.—Breakfast—beef stew, dumplings, fresh fruit, bread, butter, coffee; dinner—pot roast beef, macaroni, mashed potatoes, rice pudding, bread, butter, coffee; supper—cold corned beef, fried potatoes, kidney beans, gingerbread, bread, butter, tea.

Second day.—Breakfast—baked beans, cornbread, fresh fruit, bread, butter, coffee; dinner—corned beef, mashed turnips, cabbage, boiled potatoes, cottage pudding, bread, butter, coffee; supper—beef pot pie, mashed potatoes, cold beans, jam cake, bread, butter, tea.

Third day.—Breakfast—corned beef hash, fresh fruit, bread, butter, coffee; dinner—roast beef, lima beans, boiled peeled potatoes, apple pie, bread, butter, coffee; supper—fried liver and bacon, onion gravy, boiled potatoes, buns, bread, butter, tea.

Fourth day.—Breakfast—scrambled eggs, rolled oats and milk dressing, canned pineapple, bread, butter, coffee; dinner—baked beef hearts, dressing, mashed potatoes, pudding, bread, butter, coffee; supper—hamburg steak, fried potatoes, peach pie, bread, butter, tea.

Fifth day.—Breakfast—fruit canned, baked beans, corn bread, bread, butter, coffee; dinner—pot roast beef, creamed onions, boiled potatoes, rice pudding, bread, butter, coffee; supper—frankfurters, cold beans, potato salad, coffee-cake, bread, butter, tea.

Sixth day.—Breakfast—fruit, beef stew, dumplings, hominy and milk, bread, butter, coffee; dinner—boiled ham, peas, boiled peeled potatoes, apple pie, bread, butter, coffee; supper—beef a la mode, mashed potatoes, kidney beans, gingerbread, bread, butter, tea.

Seventh day.—Breakfast—pork sausage, boiled potatoes, canned fruit, bread, butter, coffee; dinner—roast beef, succotash, mashed potatoes, tapioca pudding, bread, butter, coffee; supper—cold corned beef, vegetable salad, jam cake, bread, butter, cocoa.

Eighth day.—Breakfast—baked beans, corn bread, canned fruit, bread, butter, coffee; dinner—corned beef, cabbage, boiled peeled potatoes, cottage pudding, bread, butter, coffee; supper—Hamburg steak, creamed potatoes, cold beans, gingerbread, bread, butter, tea.

Ninth day.—Breakfast—corned beef hash, stewed prunes, bread, butter, coffee; dinner—pot roast beef, macaroni, mashed potatoes, mince pie, bread, butter, coffee; supper—frankfurters, sauerkraut, potato salad, coffee cake, bread, butter, tea.

Tenth day.—Breakfast—beef stew, dumplings, hominy and milk, bread, butter, coffee; dinner—roast pork, apple sauce, corn, boiled potatoes, rice pudding, bread, butter, coffee; supper—cold corned beef, fried potatoes, kidney beans, jam cake, bread, butter, tea.

Eleventh day.—Breakfast—baked beans, corn bread, fruit, bread, butter, coffee; dinner—roast beef, lima beans, boiled peeled potatoes, pudding, bread, butter, coffee; supper—fried liver and bacon, onion gravy, boiled potatoes, gingerbread, bread, butter, cocoa.

Twelfth day.—Breakfast—scrambled eggs, rolled oats and milk, canned fruit, bread, butter, coffee; dinner—boiled ham, peas, mashed potatoes, apple pie, bread, butter, coffee; supper—beef a la mode, boiled peeled potatoes, rice pudding, bread, butter, tea.

Thirteenth day.—Breakfast—pork sausage, boiled potatoes, hominy and milk, bread, butter, coffee; dinner—pot roast beef, creamed onions, boiled potatoes,

tapioca pudding, bread, butter, coffee; supper—creamed salmon, peas, mashed potatoes, peach pie, bread, butter, coffee.

Fourteenth day.—Breakfast—baked beans, corn bread, canned fruit, bread, butter, coffee; dinner—roast pork, apple sauce, string beans, boiled peeled potatoes, pumpkin pie, bread, butter, coffee; supper—cold corned beef, fried potatoes, jam cake, bread, butter, tea.

A synopsis of the operations of the commissary department on board the *President Grant*, as reported by the supply officer of that vessel, is given, showing in detail exactly how the troops were subsisted, this report being fairly indicative of the manner in which the troops on all transports operated by the Navy were subsisted:

"The food for the troops is prepared by the Navy and served by the Army. The cafeteria system is used. The Army serving details obtain their food from the galleys and serve to the troops as the troops file by the serving tables with kits extended to receive food. The troops eat at tables, standing. The troops are messed by berthing compartments in sequence, and the mess instructions for each berthing compartment regulating the flow of troops are different. When 'mess call' is sounded, the troops must go to their berthing compartments and stand by their bunks with mess kits in readiness, waiting there until it is time for their compartment to be served. After the men have finished their meals and have washed their mess kits, they must go up on the main deck and wait their until all berthing compartments and messing compartments have been thoroughly policed. The troops' mess is the center of all ship's routine for troops and all activities are timed by the mess.

"Galleys and messing compartments.—On board this vessel there are two galleys and four messing compartments. One galley and two messing compartments are located forward, and one galley and two messing compartments are located aft. The galleys are located on the main deck directly over the messing compartments, and the messing compartments are located on deck No. 2. The messing compartments in the forward part of the ship are Nos. C-2 and D-2; those in the after part of the ship are Nos. G-2 and H-2. Food is served directly from the galleys to the serving stations.

"Serving stations.—There are nine serving stations on board for serving food to the troops and are numbered from 1 to 9, starting in the forward messing compartments and going aft. Each serving table is amply supplied with food containers and all equipment for serving food.

"Serving detail.—To be selected as far as possible from men familiar with Army mess routine for serving food to the troops. This detail will consist of 9 squads of 14 men each, with a sergeant in charge of each squad to man the 9 serving stations. Of each squad 4 men should be selected to serve prepared food from serving receptacles, 4 to keep receptacles replenished, 2 to serve coffee or tea, and 2 will procure and 2 will serve bread and butter. Printed instructions will be given each sergeant in charge of each serving station. Each squad will report at its station one hour before the regular meal is served. Each squad will be responsible for the proper cleaning of its serving station and of all serving kettles and other utensils used in serving food.

"Mess guard.—To regulate the movement of troops into and out of the messing compartments. Each one of these guards will have different instructions in printed form. The entire guard should report promptly two hours before the first meal is served and one hour before each meal thereafter.

"Serving details.—The sergeant will take orders from the steward as to the amount of each different article of food to be served per man as to the disposition of any foods, etc. He will take orders from the commissioned officer in charge with respect to the flow of the line, the time to begin, etc. In other words, the steward has jurisdiction over the food, the commissioned officer has jurisdiction over the troops. The commissary officer of the ship is, of course, in general charge.

"Sergeants will see that carriers from other stations do not take food containers belonging to his station, and that his carriers do not take containers belonging to other stations. The sergeant will be responsible for all gear, such as containers, knives, forks, spoons, ladles, etc. The serving detail will be responsible for the cleanliness of the serving station and all gear, and will clean same after each meal.

"Operating instructions.—The supply officer wishes each man aboard this ship to have all he wishes to eat. A man can not eat all he is entitled to if he eats all items. Of fruits and meats only is the ration limited, to be determined

by the steward. Of all other items each man may have all he can eat. But avoid waste. If you see men are wasting a certain item, cut it down.

"See that men move fast by serving tables, fill up each table, vacate tables at once when finished, wash kits quickly and pass up on deck without lingering. Washing facilities are limited, and only by watching this closely can best time be made. The general mess officer should pass from compartment to compartment during mess to see that the system is working smoothly."

In addition to feeding the troops, a Government mess was established for officers on all transports, the menu for which was supplemented by purchasing special articles of food not carried for issue to the general mess.

Training and assignment of supply officers.—The work of detaining commissioned officers of the supply corps and pay clerks, both Regular and Reserve, to fill vacancies in complements afloat and ashore increased as it was necessary to increase the personnel of the supply corps to carry on the work of the supply department of the Navy. An excellent idea of the increase and magnitude of the work of the supply department during the war is afforded by a comparison of the authorized prewar strength of the supply corps with the number of officers on duty at the time the armistice was signed. Before the war the total authorized strength of the supply corps was 232 officers; November 11, 1918, there were in the service on active duty a total of 3,315 commissioned officers.

In addition to this, before the war there was a total strength of approximately 205 pay clerks and chief pay clerks, which number increased to 836 up to the date the armistice was signed.

In placing additional vessels in commission, which was immediately commenced on the date war was declared, and in order to efficiently take care of the immediate increase in the volume of business of shore establishments, both at navy yards, naval training stations, and in the several naval districts, it became necessary to obtain quickly an addition to the commissioned personnel of the supply corps adequate to take care of the many duties devolving upon it in connection with the feeding and clothing of the men and obtaining the thousands of articles of ship's equipment and consumable supplies of all kinds incident to the expansion of the Navy's activities ashore and afloat.

The first drive to recruit sufficient additional officers to handle the work of the supply department was at once undertaken, and letters were written to registrars of the leading colleges and fraternities throughout the United States, notifying them for the date on which examinations were to be held for this purpose and giving some details as to the nature of the examination required. The first drive resulted in obtaining about 70 new officers, the majority of whom were college men.

This was, however, as circumstances showed, but a stepping stone to another great drive; and June 7, 1917, another examination was held in every naval district for commissioning officers in the Reserve Supply Corps. About 2,000 took this examination, and from this number a total of approximately 300 officers was added to the commissioned ranks of the supply corps. The men who took this examination and who were subsequently appointed were representative of almost every line of business activity—several bankers, many successful business men, certified public accountants, and a large number of honor men from various colleges making up the total. Of these, a great many had enlisted in the Navy at the outbreak of the war and were, in pursuance of this examination, commissioned in the supply corps from enlisted ratings.

In addition to the increase in the commissioned personnel of the supply corps by examination, 53 officers were appointed outright from distinguished military colleges, their diplomas from these colleges being evidence of their fitness, except for the usual physical examination, to be commissioned without further examination.

These successive steps show in a general way exactly how the supply corps of the Navy was recruited to take care of the great increase in the volume of the supply department's work. Of the 3,315 officers constituting the strength of the supply corps during the war, approximately 205 represent former pay clerks and chief pay clerks who were temporarily commissioned for the duration of the war and who were in consequence assigned to independent duty ashore and afloat, discharging the duties that would ordinarily fall to the lot of an officer of the rank which they held.

It was not, of course, necessary to train the officers temporarily commissioned in the duties that would devolve upon them in their independent assignments ashore and afloat, as many of them had already had many years of experience as assistants to officers of the regular Supply Corps prior to the war. But for

those other officers, who for the most part came into the Navy direct from civil life, it was necessary that they be given a course of intensive instruction in the very versatile work of the Supply Corps.

A Naval Supply Officers' School was accordingly opened at the navy yard at Washington for the instruction of the first contingent of officers who came in to the Navy after war was declared. This school was later transferred to the Washington Business High School and later on, as the size of the classes increased, the Navy was fortunate in obtaining the Catholic University at Brookland, D. C. This arrangement was effected through the courtesy and generosity of Bishop Thomas J. Shahan, whose aid in this respect was of material assistance to the department and greatly appreciated. From the Catholic University the school was transferred to the Naval Academy at Annapolis where these officers were not only intensively instructed in their professional specialty but where, through association with the midshipmen and commissioned officers of the Navy taking short courses of instruction along specialized lines, they were able to become thoroughly indoctrinated with the spirit of the Navy and to absorb—in part at least—the traditions of the service. Due to the fact, however, that it was necessary to send a large number of additional line officers for short courses of instruction at the academy, it was not practicable to continue the arrangements that had been entered into for conducting the Naval Pay Officers' School at that place, and it was then transferred in September, 1918, to Princeton University and its name changed to the Officers' Material School for the Pay Corps. Here their training was conducted along with other classes that had been established for the training of line officers.

Five experienced regular officers of the Supply Corps of the Navy, one senior officer in charge, and four juniors, as instructors, were assigned to duty at the Naval Pay Officers' School in connection with the instruction of the student officers. The course of intensive training, in addition to military instruction, covered in a general way all of the work required of a supply officer afloat, including the following subjects: Pay-roll work, commissary, canteen, and general stores.

To make the course as practical as possible it was assumed that each individual student officer had received orders for duty as supply officer of one of the smaller ships in the Navy and continued on such duty for a period of three months. A pay roll was opened, transfer accounts of officers and men received, taken up, and again transferred to other ships; and all of the paper work in connection with procuring, accounting for, and expending money, stores and material ordinarily required for the operation of such a ship during a cruise in various parts of the world was prepared in great detail.

Such monthly and quarterly returns as are required by the auditor for the Navy Department in connection with money accounts and by supply and accounts in connection with property accounts were prepared exactly as in actual practice. Lectures covering all of the subjects that were included in the course were delivered by the officer in charge and instructors.

In addition to the above, the following military work was carried on: The class was divided into a 3-company battalion, each company consisting of 42 student officers and commanded by one of the regular officer instructors. The men were put through battalion and company drills each day and one hour devoted to physical exercises, the men at all times being under strict military discipline.

Not all of the officers who came into the Supply Corps during the war, however, were sent to the school for instruction. A great many were commissioned for duties as technicians, for which their business training or peace-time profession particularly qualified them. In this way the greatly increased number of officers required to supervise the cost accounting at shipbuilding plants, mills, and factories in connection with cost-plus contracts entered into by the Navy were readily obtained. Specialists in various commodities were likewise secured in this manner for duty in connection with the large purchases of copper, steel, wool, leather, textile goods, etc. No special course of training was required for these officers—they simply transferred their services from a civilian to a military establishment where their prewar experience and training could be immediately capitalized for the Navy's benefit along specialized and technical lines.

DISBURSING DIVISION.

Its duties.—At the time the United States entered the war the duties of the Disbursing Division consisted in the payment for material delivered to the Navy under supply and account contracts, the payment of all freight and

passenger transportation services rendered by railroads and express companies, the payment of expenses of officers and civilians travelling on inspection duty and the payment of allotments made by officers and enlisted men of the Navy.

As the work expanded, additional officers were ordered to duty in the division and placed in charge of sections or of special work.

On March 1, 1918, the work and personnel of the Disbursing Division expanded to such an extent that it was decided to divide the work into allotments, retainer pay, war-risk insurance, and Liberty loans, a separate division, called the allotment division, being formed for this purpose.

Work under war conditions.—The accomplishment of the duties of the Disbursing Division before the war was mostly a matter of routine. All material for the Navy was purchased after competition, at stated prices, which included all delivery charges, and payment was made only after material was delivered. The work of auditing consisted of checking prices stated in a contract, and in most instances only one price had to be contended with. This routine condition did not remain in force after the advent of the United States into the war. The changed methods of purchasing and procuring war material to comply with the procedure adopted by the various bureaus and offices of the Council of National Defense, the War Industries Board, etc., the system of commandeering material instead of purchasing the same after competition and payment for material by advance payments, partial payments, and on the cost-plus basis required an entirely different and higher class of work.

To further complicate audit work, adjustments were necessary in many cases where the Government supplied the raw material for the manufacture of articles called for in a contract; and deductions had to be made to amortize advance payments and to collect the interest due thereon.

Purchases were usually made at a base price, with various factors to be taken into consideration in determining final prices. For instance, during the war all coal was commandeered. A price at the mines was fixed, to which were added all charges incurred by the contractor from the time the coal left the mines until it was delivered at destination. This included freight, war tax, water insurance, wharfage, demurrage, and all other handling charges.

Steel was purchased at the Pittsburgh base price, in accordance with commercial practice, with adjustments to be made to equalize freight between that point, the shipping point and destination, to which were to be added the various differentials and extras agreed upon between the Government and the American Iron and Steel Institute.

When it is known that the differentials and extras on steel and iron and the rules for applying them were contained in a book of 176 pages, it will readily be seen that to properly audit vouchers under war conditions required clerks trained, not only in accounting, but in the various trade customs governing different industries.

Reorganization to meet war conditions.—To meet these war conditions it was necessary to organize and train a force of clerks along the line of the new work. These clerks could not be obtained from the Civil Service Commission, as the eligible list was drained by the draft and by numerous calls made upon it by other departments.

In order to overcome this difficulty, yeomen (F) were enrolled in the Naval Reserve and in a short time, with the few experienced civil-service clerks as a nucleus, a well-trained and efficient force was built up and the work of payment for Navy material purchased was kept in hand at all times during the war.

The organization and training of the new force of clerks was difficult, but the question of providing working space was even more difficult.

In the beginning of the war all disbursing work was handled by 22 clerks, occupying a floor space of 2,898 square feet. At the peak of the load the work was handled by 714 clerks, occupying a floor space of 40,400 square feet.

Expansion of quarters and personnel.—So rapidly was the force expanded that shortly after the beginning of the war it was necessary to move from the original quarters occupied in the Navy Annex to the temporary structure erected at Corcoran Court. Ground for the foundation of this structure was broken December 24, 1917, and January 15, 1918, the office force moved into the new quarters, with its 54,000 square feet of office space. Moving started after office hours, Saturday, January 13, and Monday morning, the 15th, clerks were at their desks and work continued without interruption.

Disbursements.—It is needless to say that disbursements by the chief disbursing officer of the Navy in shipping and accounting increased heavily as

the war advanced. Every movement of war matériel, supplies, guns, ammunition, etc., by freight and express, and every movement of naval forces by land was paid for from this office.

During the month preceding the entry of the United States into the war disbursements amounted to \$8,853,629.85. This covered 5,089 vouchers for matériel supplied to the Navy. The number of vouchers paid and the amount of disbursements increased steadily as the war advanced, until in December, 1918, the disbursements reached a total of \$83,990,241.55, and a total of 19,488 vouchers paid. In the following month, January, 1919, the number of vouchers paid increased to 20,517, although the disbursements fell to \$71,101,649.49. The number of vouchers paid can not be taken as a criterion to ascertain the increase in the work—vouchers that before the war contained only a few items on one sheet increased to 15 and 20 sheets during the war.

The following table shows the total number of bills paid and the total disbursements by months for the last three fiscal years:

Month.	1917		1918		1919	
	Number of vouchers paid.	Total disbursements.	Number of vouchers paid.	Total disbursements.	Number of vouchers paid.	Total disbursements.
July.....	2,578	\$4,204,716.09	5,498	\$22,200,019.39	16,661	\$74,681,926.43
August.....	2,786	3,786,628.09	6,440	20,722,478.48	17,166	83,480,230.21
September.....	2,870	4,705,909.18	6,180	25,908,623.18	16,159	75,062,437.61
October.....	4,036	5,124,847.77	8,578	50,302,874.19	17,580	80,484,333.46
November.....	4,383	5,362,585.63	8,541	52,419,949.59	18,772	75,526,117.42
December.....	3,884	5,145,269.13	9,049	56,190,558.89	19,488	83,990,241.55
January.....	4,336	6,681,736.29	11,378	62,214,297.39	20,517	71,101,649.49
February.....	3,994	6,470,851.30	10,007	43,086,338.41	15,778	64,652,473.87
March.....	3,089	8,853,629.85	12,216	65,142,705.51	12,053	59,182,306.74
April.....	3,179	10,643,144.92	15,203	61,364,259.66	14,780	54,250,324.43
May.....	3,593	15,546,079.60	15,639	71,630,784.07	17,683	61,043,952.31
June.....	3,876	18,050,524.89	13,202	62,159,637.69	14,516	45,548,366.74
Grand total.....	50,634	94,375,820.74	121,931	593,251,526.45	201,133	829,004,362.26

Financing war projects.—As a stimulus to production, it was important that contractors be paid as soon after delivery of supplies as possible. This importance is emphasized by the fact that the entire output of many commercial plants was commandeered for war purposes; and, their commercial revenue being thereby cut off, such firms had to look to the Government for sufficient funds to keep their plants in operation. Every expedient was used to assist contractors for war materials in this respect. Money was advanced them for plant extensions, as provided for by the act of October 6, 1917. Contracts were so prepared as to permit partial payments, usually 90 per cent, when material was shipped, and the remainder on delivery, or to make partial payments as the work progressed. In many cases payments were made in full when material was shipped from the contractor's works.

The Navy did its part in this respect. The work of payment was kept up to date. When necessary, due to unusually heavy receipts of vouchers of one class, the forces were shifted from section to section as required; and in this way, with overtime and night work, the work was kept properly balanced.

Sixty dollar bonus.—In February, 1919, when the volume of the ordinary disbursement work began to decrease, certain legislation enacted by Congress threw an additional burden of work on supplies and accounts.

The act approved February 24, 1919, granted a bonus to all officers and enlisted men, including reservists, who served in the war and who resigned or were honorably discharged or released from active duty as reservists.

The regulations adopted for the payment of this bonus provided that persons who resigned or were discharged up to the time the act was approved were to be paid in supplies and accounts.

Within a few days after the act was passed, claims for this bonus were received by the thousands. In harmony with the general demobilization scheme then in progress not only throughout the service but among the clerical force in supplies and accounts, it was necessary to undertake this work with the ordinary office force in conjunction with the work in hand.

The first bonus payment was made March 3, 1919, and payments continued as rapidly as checks could be written by the force available. On March 18, 1919, the entire office force of the Disbursing Division and a few clerks temporarily assigned from other divisions of supplies and accounts were placed on this work. Records were posted each day showing the number of claims audited, checks written, checks mailed, and other papers disposed of. In this way, competition was established among the clerks and the work of paying the bonus expedited.

This "drive" was continued until March 29, 1919. On this date, all payable claims in the office had been paid and the work of bonus claims was up to date. The clerks were reassigned to their regular work, which was then far in arrears, and a small section was established to care for incoming claims.

The following table shows the number of claims paid each day during this drive:

Date.	Number of checks written.	Date.	Number of checks written.
Mar. 18.....	2,334	Mar. 24.....	6,450
Mar. 19.....	10,000	Mar. 25.....	3,630
Mar. 20.....	12,000	Mar. 26.....	3,605
Mar. 21.....	15,562	Mar. 27.....	1,380
Mar. 22.....	17,500	Mar. 28.....	12,365
Mar. 23.....	(¹)	Mar. 29.....	4,035

¹ Sunday.

On June 30, 1919, 181,200 of these claims had been paid.

Additional travel allowances.—The act approved February 28, 1919, granted an allowance of 5 cents per mile from place of enlistment to place of discharge or to the homes of men discharged or released from active duty and further increased the work in supplies and accounts.

Payment of this allowance to men discharged or released prior to March 13, 1919, was undertaken in supplies and accounts. Men discharged after that date were to receive the allowance in the settlement of their account.

This work is being carried on by the regular office force, and, from the beginning date these claims have been paid as rapidly as they have been certified by the Bureau of Navigation, to which bureau all such claims are submitted.

On June 30, 1919, 2,129 of these claims had been paid.

The foregoing treats only of disbursements on account of material delivered to or services rendered the Navy. Other branches of work handled by the chief disbursing officer are the payment of allotments, other than War Risk allotments, and of retainer pay to reservists, also the receipt and maintenance of allotment and insurance applications under the war-risk insurance act.

Allotments.—In the allotment section is the system whereby all in the Navy are enabled to provide unfailingly regular financial support for their families and dependents. Under this system any member of the naval forces may allot any portion of his monthly pay to any designated beneficiary or depository; and, although the checkage of the sum allotted against the grantor's account follows him to any part of the world, payment of the same is made punctually on the last day of each month by a check mailed from the disbursing office in Washington.

April, 1917, found in operation a well-tried and efficient system for handling allotments. It consisted of a card system of bookkeeping, a card for each allotment, filed alphabetically, and a corresponding file of stencils from which the checks and abstract of payment for the auditor were printed. The printing of checks and auditor's abstract and the posting of payments on the allotment cards were effected by machines especially designed for the system, thus making for accuracy and dispatch. This system was continued in operation throughout the war, changed in no essential but merely developed, perfected in detail and expanded immensely to accommodate the enormous increase in the number of allotments to be handled.

When war was declared, voluntary allotments formed a section of the Navy Disbursing Office with a bare dozen clerks, a few feet of card files, a half-filled stencil file, two stencil printing machines, a stencil cutter, and 10 desks constituting the section. The total number of allotments paid in March, 1917, was

17,815, amounting in all to \$573,582.95, which made a striking contrast to the figures for a year later, those for June, 1918, being 128,002 allotments paid, aggregating \$2,689,496.18.

Like a sensitive barometer, the number of allotments on file and the magnitude of the total monthly disbursement marked the pressure of enlistments in the Navy and enrollments in the Naval Reserve Force. The figures from March, 1917, to December, 1917, are given below:

Month.	Number of allotments.	Total disbursed.
March.....	17,815	\$573,582.95
April.....	18,343	599,934.51
May.....	19,806	677,049.77
June.....	21,884	751,490.53
July.....	29,193	860,614.11
August.....	33,727	955,899.32
September.....	37,072	1,077,662.91
October.....	40,416	1,167,222.50
November.....	51,581	1,296,968.66
December.....	85,546	1,740,932.64

By December, 1917, allotments had so increased in number and new ones were being registered in such volume that it was necessary to detail an officer whose sole duty would be attention to this section. Then the period of greatest expansion and development began. The figures from January, 1918, to June, 1918, are given below:

Month.	Number of allotments.	Total disbursed.
January.....	77,316	\$1,664,969.53
February.....	97,829	1,916,998.35
March.....	88,974	2,148,287.21
April.....	84,177	1,904,580.23
May.....	95,936	1,899,430.06
June.....	128,002	2,689,496.12

The following table shows the number and amounts of allotments carried and paid during the three fiscal years covered by the war and serves as a convenient illustration of the increase in the work brought about by the war:

Month.	1917		1918		1919	
	Number of ac- counts.	Total dis- bursements.	Number of ac- counts.	Total dis- bursements.	Number of ac- counts.	Total dis- bursements.
July.....	17,156	\$519,391.14	29,193	\$860,614.11	127,078	\$2,353,892.71
August.....	17,202	520,658.34	33,727	955,899.32	109,676	2,271,135.43
September.....	17,002	516,642.90	37,072	1,077,662.91	101,014	2,438,966.26
October.....	16,639	503,401.64	40,416	1,167,222.50	134,258	2,084,278.18
November.....	16,273	493,476.88	51,581	1,296,968.66	226,371	3,127,488.69
December.....	15,990	488,107.70	85,546	1,740,932.64	271,467	4,145,193.12
January.....	16,498	513,041.42	77,361	1,614,969.53	280,214	1,981,549.14
February.....	17,106	534,277.43	97,829	1,916,998.35	160,956	2,941,709.55
March.....	18,015	573,582.95	88,974	2,148,287.21	161,167	3,762,769.76
April.....	18,378	599,934.51	84,177	1,904,580.23	158,544	1,746,622.90
May.....	19,932	677,049.77	95,936	1,899,430.08		
June.....	21,915	751,490.53	128,002	2,689,496.18		
Grand total.....		6,691,055.21		19,303,051.72		26,853,606.74

Reservists' retainer pay.—The disbursing and retainer pay to members of the Naval Reserve Force was, like voluntary allotments, one of the functions of the Disbursing Division which grew to such proportion after the declaration of war that it became a separate section.

April, 1917, found a bare 5,000 retainer-pay accounts on file in a small corner of the allotment section of the Disbursing Division and scarcely half a dozen

clerks engaged in disbursing this pay. By the time the armistice was signed there were some 300,000 accounts on file, and the retainer-pay section had become an office of 40 clerks, under an officer, in addition to those clerks shared with the voluntary allotment section in the latter's stencil and machine room.

The following table shows the increase in this branch of the work during the war:

Months.	1917		1918		1919	
	Number of accounts.	Disbursements.	Number of accounts.	Disbursements.	Number of accounts.	Disbursements.
July.....	470	\$2,235.79	35,792	\$97,209.00	217,251	\$386,241.05
August.....	510		44,925	30,677.37	247,791	237,774.90
September.....	510		47,951	25,147.73	259,842	67,897.18
October.....	510	1,791.00	51,736	154,446.48	270,686	104,339.20
November.....	560	1.05	55,498	25,916.44	278,172	197,007.84
December.....	600		63,696	19,391.49	277,287	153,785.09
January.....	656	18,361.78	63,696	20,207.44	275,721	293,294.12
February.....	1,489	507.24	63,770	85,822.53	274,476	83,504.48
March.....	5,498	227.18	88,054	33,423.49	274,221	69,871.90
April.....	16,022	75,092.45	105,655	113,996.18	272,772	319,374.24
May.....	28,342	20,877.65	138,889	59,125.59		
June.....	33,994	18,402.48	175,755	47,072.27		
Grand total.....		137,496.63		712,436.01		1,973,090.00

War-risk insurance.—The passage of the war-risk insurance act, October 6, 1917, was more momentous than was at first realized. It established a bureau in the Treasury Department which finally employed 20,000 people. The purpose for which this bureau was established was to provide men in the service with the means for making allotments to their dependents with an additional allowance by the Government, an opportunity for subscribing for life insurance at net rates, and protection in the form of compensation to disabled men and to the dependents of men dying in the performance of duty.

There developed upon the Navy the necessity of registering the insurance and allotment forms—a work which loomed large with the expansion of the sea defense to over half a million men. Until the final draft for the Army was provided, no one knew what a volume of work was to pass through the Bureau of War Risk Insurance. The increase of the two arms of the service not only gave the Navy a great accounting task of its own, but the problem of interpreting its military necessities, regulations, and ratings to a bureau the bulk of whose work was occasioned by the large drafts of men entering the Army. This situation was met by establishing a war-risk section in Supplies and Accounts. All applications were forwarded in duplicate to this section, the original being forwarded to the Bureau of War Risk Insurance and the duplicate retained in the Navy files.

The first insurance applications were received about October 17, 1917, and after being examined and found correct were forwarded to the Bureau of War Risk Insurance.

During November, 12 pay officers who had had experience in insurance were ordered to the war-risk section and instructed in various features of the war-risk insurance act. Later they were ordered to the various naval districts in this country and to foreign stations, one being sent to Hawaii, Guam, China, and the Philippines, and four of them going to Europe.

The records show that more than 80 per cent of the \$2,000,000,000 insurance written in the Navy to and including June, 1918, was the result of the personal efforts of these 12 men.

The first applications for family allowance were forwarded to the Bureau of War Risk Insurance December 19, 11,000 being forwarded during December. Up to and including January 8, 41,000 applications for family allowance, part containing allotments and part showing no dependents, were forwarded to the Bureau of War Risk Insurance, and January 12 the first checks for Navy family allotments and allowances were mailed by the Treasury Department. Something less than 10,000 checks were mailed in January for payments due in December. By the end of February the Bureau of War Risk Insurance had mailed to the dependents of Navy men 20,300 checks, totaling \$1,492,770.

During the latter part of January, 1919, it was decided that as the work of the Bureau of War Risk Insurance was being handled promptly, the continuance of a war-risk section in the Navy was no longer necessary. At a conference between representatives of the Navy and the Treasury it was agreed that the Navy could turn over the work of the war-risk section to the Bureau of War Risk Insurance February 15, provided clerks in the war-risk section were released to accept positions in the Bureau of War Risk Insurance. On February 1 the Navy files were closed and February 15 the section disbanded, leaving only 50 clerks and 2 officers to complete the work on the files.

On April 1 the last unit of the war-risk section was disbanded and the Navy files were turned over to the Bureau of War Risk Insurance.

The efficient manner in which the Navy handled war-risk insurance matters was commented upon by both the Army and the Treasury Department; and the fine work of the insurance officers is brought out by the fact that 500,000 men in the Navy subscribed to four and a quarter billions of Government insurance during the war.

Liberty bonds.—When the problem of affording officers and enlisted men of the Navy serving at outlying stations and at sea an opportunity to subscribe for Liberty bonds the same terms of partial payments afforded by banks to subscribers throughout the country arose, it was found that the disbursing organization in Supplies and Accounts was ready with the solution.

Liberty bonds were sold to the officers and men through their supply officers and payments made through the allotment system in Supplies and Accounts. Had it not been for this expedient, thousands of persons in the Navy would have been cut off from participation in the various Liberty loans.

Not only were the payments for bonds arranged, but an extensive educational campaign was carried on throughout the service to bring to the attention of all concerned the advantages of the Liberty loans and the methods by which bonds could be purchased.

ACCOUNTING DIVISION.

Accounting, cost determinations, and finance.—A wide variety of matters occupied the attention of the accounting organization of the Navy during the war. The accounting responsibility of the Supply Corps prior to the war resulted in there being available at the outbreak of the war a considerable number of officers of such experience that the building up of an organization adequate to cope with the new conditions was satisfactorily accomplished.

Necessity for cost-plus contracting and cost determination.—A large part of the accounting effort of the war period was required in connection with the purchasing of materials in cases where the determination by the Navy itself of cost and proper compensation was necessary, i. e., in all cases where, for one reason or another, a fixed-price contract was not feasible or could not be entered into without investigation, and where the product contracted for did not fall under general price agreements controlled by the War Industries Board.

The situation as regards wages, cost of materials, and financing of additional plant capacity was, of course, such as to make it necessary for many manufacturers to ask for cost-plus contracts; on the other hand, the Navy, in order to avoid the necessity of allowing manufacturers a wide margin for contingencies, found in many cases that its interests required a cost-plus contract with a continuous and careful inspection of costs thereunder.

In other cases examination of bids and estimates were made. In order that a fair fixed-price contract could be entered into. Where the execution of a contract was impracticable, Navy commandeering orders for manufacture were issued, and an examination of the costs thereunder was made in order to determine a fair fixed price.

Scope of special cost and financial examinations.—Several hundred accounting examinations were conducted to determine the fairness of bid prices on proprietary articles, the proper allowances for amortization of plant improvements, the financial condition of various companies and the merit of their claims for advances of money under the act of October 6, 1917, as well as proper methods of securing these advances and providing for their liquidation to determine proper adjustments due to increased wages and material costs, to make proper settlements in cases where the exigencies of war required the undertaking of the work under oral or general understandings, to arrange proper methods of making progress payments and other means of assisting contractors to carry out their obligations, to make the necessary adjustments in cases where Government copper, spelter, and other materials were furnished on consignment for fabrica-

tion or assembly, to arrive at a fair basis of settlement in cases of commandeering of plants, and to adjust contracts which for one reason or another were canceled. Examinations of this kind involved a total money value of about \$55,000,000.

Other special accounting problems.—Other financial matters of unusual complexity which arose included adjustments with the Shipping Board, the War Department, the Allies, and private parties on account of charter rates, freight rates, and inventories on cargo vessels and troop transports seized, purchased, or built; adjustments of accounts receivable and payable with the British and French missions and other departments of the Government; foreign exchange matters arising in South America, China, Turkey, and Europe; the shipment of money; the organization of accounting systems for the new navy plants, development of accounting systems for the naval districts and the Naval Overseas Transportation Service, and the meeting of the many new problems arising in navy-yard accounting with respect to cost keeping and the interpretation of legislation and decisions affecting yard labor. With the signing of the armistice, the slackening in these activities was offset by problems of settlement, questions of appropriation accounting, which, with the curtailment of funds, immediately assumed importance; problems of cost accounting due to the necessity for the furnishing of statistical information, and problems of stores accounting due to the necessity for cleaning up the large stocks of material on hand.

Accounting organization and savings effected.—To meet the war conditions a force was organized which, June 30, 1918, included 15 officers and 255 junior accountants and clerks in Supplies and Accounts and 130 officers and about 2,000 junior accountants and clerks in the field, located throughout the country at about 100 major plants and shipbuilding yards and several scores of small ship-repair yards and machine shops.

The activities of this organization resulted in actual concrete savings to the Navy of \$19,000,000 on special cost examinations alone and of a considerably large amount on cost-plus contracts, without attempting to estimate what further amounts might have been charged to the Navy had the control exercised by this organization been absent.

Cardinal principle of cost inspection.—This control was exercised, on the whole, with little friction. The accounting organization was imbued with the idea that a way must always be found to prevent waste of the Government's money without interfering with the expeditious prosecution of the work.

The sphere in which the application of this cardinal principle was most necessary was in the administration of the cost-plus contracts. Supplies and Accounts was concerned with the inspection of costs under three general forms of these contracts which, due to the organization of the Navy Department, were administered in three separate ways:

1. The manufacturing contracts, including guns, aeroplanes, forgings, special devices, and supplies, aggregating \$124,000,000;
2. Shipbuilding contracts; and
3. The ship-repair contracts, under which were expended \$315,000,000 and \$60,000,000, respectively.

Payments under public works cost-plus contracts were made by the disbursing officers upon the certificates of the engineers of the Bureau of Yards and Docks.

All the manufacturing cost-plus contracts were written and entered into by Supplies and Accounts, and the cost inspection under them was carried on by Supplies and Accounts and its local representative, the cost inspector, working where necessary in conjunction with the bureau concerned and its inspector, particularly as to their approval of the necessity for material and the proper ratings of mechanics, and also where the bureau concerned desired to express an opinion with respect to the propriety of charges.

General results under cost plus.—As to the manufacturing contracts, therefore, of which there were 143 in force at 77 plants, it is possible to speak with knowledge of all phases of the problem which have arisen, from the preliminary negotiations with the contractors to the final settlement. Notwithstanding the obvious objections to cost plus, the operations under these contracts were on the whole satisfactory.

The general weakness of the cost-plus contract from the standpoint of the Government is, of course, the tendency toward lack of interest or effectiveness on the part of the manufacturer in keeping costs down. As a partial offset to this, profit under the contract was, wherever practicable, made a lump sum instead of a percentage of cost.

General methods of control under cost plus.—The standard Supplies and Accounts manufacturing cost-plus contract established a community of interest between the Government and the contractor in that where practicable the profit is not a percentage on cost, increasing as the cost increases, but is a fixed sum per unit of product. Under such conditions it is to the contractor's advantage to prosecute the work expeditiously in order sooner to realize his profits, this being to the advantage of the Government in the matter of deliveries and also in the lower costs that are likely to accompany rapid turnover. In the latter contracts the contractor was allowed a percentage, varying from 25 to 50 per cent. of the saving effected by reducing the actual cost below the cost estimated at the time of execution of the contract.

Other and more universal methods of control over waste were exercised. The first was the careful drawing of the contract to exclude expenses not properly chargeable to Government product. The chief of these is a considerable group of charges, such as advertising, bad debts, discounts, commissions, etc., in general to be described as selling expenses, which in fact—as the Government takes up more and more of the capacity of the plant—gradually tend to disappear. A further group of charges embraces those which some manufacturers customary include in overhead, but which are in reality a proper charge to profit and loss or surplus account, such as interest, income and profits taxes, losses on contracts, excessive salaries, etc.

Further than this, a careful system of control over methods of purchase and prices of material and plant procured by the contractor was established; tool rates and depreciation accounts were examined and wage schedules compared with the rates prevailing in the vicinity. All wage schedules were submitted to the Secretary of the Navy for approval in conformity with the general labor policies of the Government, as expressed by decisions of the Shipbuilding Labor Adjustment Board, the National War Labor Policies Board, and similar boards operating in connection with strictly Government agencies.

Though the high cost of labor was sometimes attributed to the wide vogue of the cost-plus contract, it is believed that on the whole it can not fairly be so attributed, being due rather to general conditions and policies in which the form of the contract under which labor is employed is but a minor factor. Apart from the wage element in the high cost of labor, there is, of course, to be considered the question as to whether the day's pay represents a full day's work. The most careful attention was given to this feature of cost inspection, and each Navy cost inspector had a force of competent men to cover this matter day and night.

Main facts established under manufacturing cost plus.—The most careful supervision was exercised over all expenditures. The main points which this supervision was designed to establish were:

In the case of labor.—Actual outlay on the part of the contractor, as evidenced by pay rolls, etc.

Actual application to Navy work, as evidenced by Navy time checking.

Reasonableness of wage schedules or conformity to awards made by Governmental wage-adjustment agencies.

Propriety of the workman's classification as a first or second class mechanic, etc., as the case might be, established by the production inspector.

In the case of material and of plant purchases.—Actual outlay and all discounts applied, as evidenced by receipted bills or other satisfactory evidence of payment.

Necessity, methods of purchase, and reasonableness of prices covered by approved material or plant orders.

Certification by material inspectors at plant or point of shipment.

In the case of factory overhead and general and administrative expense.—Actual outlay, as evidenced by the contractor's vouchers supporting the expense accounts, etc.

Exclusion of items not allowed by the contract as a charge to the Navy. If

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were verified, time clock and piecework records examined, and various other checks made.

Control of manufacturing material costs.—A thorough system of control over subcontracts were established. All orders, prices, and awards for materials and plant equipment purchased specifically for the Navy contract were approved in advance by the production and cost inspectors located at the plant; and in the event that the amount of the order exceeded \$1,000, the approval must have been concurred in by the chief of the bureau concerned and the Paymaster General. If, however, prompt action was necessary in connection with the placing of the purchase order, the local inspectors were given authority to approve orders not in excess of \$3,000. In the case of aircraft contracts, the approval of all orders was delegated to the local inspectors, for the reason that in nearly all such cases prompt action was necessary, and due to the fact that a large portion of the material entering into the production of aeroplanes was supplied through Government departments, in which case approval of prices was not necessary. All such orders, however, were later reviewed by S. and A. as to reasonableness of prices secured.

Control of manufacturing overhead costs.—In the standard manufacturing contract interest and rent were not allowed as items of overhead expense. The standard contract analyzes rental charges paid into:

- (a) Interest and profit on investment; and
- (b) Insurance, depreciation, maintenance, etc.

That portion of the rental paid which represents items under (b) was allowed as a part of overhead. This provision was adopted in order to place on the same footing with regard to overhead determination the contractors who own their plants and those who obtain the use of a plant through rental or borrowing. If both contractors are allowed the scale of profit paid to a manufacturer who has sufficient working capital, and who not only operates but owns his plant, that element of profit which is a return on investment belongs to the owner of the property or capital, and the contractor who rents or borrows must meet his interest charges out of his profits.

Advertising, selling, and collection expenses, credit losses, and customers' discounts not being connected with the cost of production under Navy contracts, were not allowed. The distribution of charges of this nature to commercial product constituted in no sense a discrimination in favor of Government purchases, but merely placed the additional cost incurred in connection with commercial sales where it belonged.

Inasmuch as administrative expense is incurred in connection with the supervision of the selling organization in solving problems of production and in looking after the finances of the business, such expenses are therefore partly a production cost and partly a selling expense. Only that portion of the administrative expenses applicable to production was allowed as a charge to be prorated over the productive activities of the contractor, the Navy contract bearing its prorata share thereof.

In order to assure that the salaries of executives charged to the Navy contract were not excessive, comparative salaries for the past three years were obtained and only normal increases allowed.

Bonuses paid to executive officers in the form of a percentage of the profits or in the form of a stock payment were not allowed, inasmuch as in the cases reviewed it appeared that this was a sharing of the profits of the business with certain executives rather than payments made in lieu of nominal salaries. Bonuses paid to foremen or subforemen or other employees, the primary object of which was to speed up production, were allowed as a proper charge, as the benefits derived therefrom were shared in by the Navy contract.

Extraordinary repairs to buildings and other items properly chargeable to the capital investment of the contractor were excluded from the ordinary maintenance and upkeep of the plant, to be prorated to the Navy cost-plus contract.

Special reports were required relative to depreciation rates, containing com-

contractors generally entered claim for the profits which it was anticipated would have been realized had the contract been carried to completion. While it was the Navy's desire to deal fairly with the manufacturers and to impose no undue hardships upon them as the result of cancellation or reduction of contracts, it was felt that the contractors were not entitled on a partially completed contract of the profits which would have accrued from a fully completed contract. A general practice was therefore followed whereby a profit was paid on goods in process, based upon the profit allowance stated in the original contract, together with such expenses as were incurred in connection with the reduction of the contract.

Cost examination on Navy orders and fixed-price cancellations, etc.—Apart from the cost-plus contracts, the principal war-accounting activities were in connection with the determination of prices on Navy commandeering orders and special investigations of fixed-price contracts, a large number of the latter being in connection with cancellations after the armistice. Nearly 1,000 special cost examinations were made.

Most of the accounting examinations on Navy orders were made under clause B, Navy orders, for the purpose of determining final price on products to be manufactured on the basis of price-to-be-determined, which usually was interpreted as cost plus a reasonable profit. These examinations involved a determination of the cost of a particular product plus a determination of what would be a reasonable profit for this product; the latter factor involving consideration of the average investment required to complete the order.

A second class of examinations comprised those for the compensation board, involving a complete analysis of the business of the company. These examinations were made for the purpose of ascertaining the reasonableness of the price policy of the company. Based on the prices recommended in these examinations, the compensation board approved purchases made by Navy cost-plus shipbuilding contractors. These recommendations ran into several millions of dollars.

Miscellaneous examinations included those under fixed-price contracts to determine the amount of adjustment to be made on account of change in specifications or extra orders by the Navy Department; cancellation settlements on contracts and subcontracts; those made to determine overhead rates and bogey prices for proposed cost-plus contracts, to determine whether the Navy should advance funds to the contractor and the method by which such loans should be repaid and other miscellaneous matters.

General method of cost determinations.—Price determinations were made by one of three distinct methods:

(a) At the completion of the production of the article when actual costs could be ascertained.

(b) In advance of production of the article, in which case the examinations were based upon inspection of previous costs or corrected previous costs or detailed estimates prepared by the company, consideration always being given to the fact that previous costs were not necessarily applicable to the present order; and

(c) By inspection during the period of production, in which case a cost inspector made test checks during the course of manufacture.

In some cases it was found necessary to maintain continuous cost inspection in order to obtain satisfactory costs.

In all examinations, inspection of the company's records has been insisted upon. On orders over \$100,000 and the more important of the smaller orders, a representative of shipping and accounting was detailed to the company's plant. On the smaller orders, final reports were based on data furnished by accounting officers stationed throughout the country.

On account of the large increase in the number of Navy orders requiring determination of costs and profits and the limited personnel available, a method was inaugurated of requesting the contractor to indicate within 30 days after receipt of Navy order whether he would apply for final price—

(a) On the basis of prior cost records, corrected prior cost records or detailed estimates; or

(b) At the conclusion of the order on the basis of actual cost.

In each case, the contractor was requested to forward cost summaries supported by affidavit. The Navy reserved the right to substantiate the correctness of the summaries submitted by an examination at any time of the contractor's records and also reserved the right to install cost inspection at the plant where such procedure was required to safeguard its interests.

Profit and return on investment.—Determination had to be made of a reasonable allowance to cover compensation for doing the work and return for the use of the contractor's own investment and interest on borrowed capital. The two factors of profit and interest are so closely interlocked that joint treatment rather than segregation produced the most satisfactory result. No single method could be arrived at of determining reasonable allowance for profit and interest which would be uniformly applicable to all cases and satisfactory to all parties concerned. Through a large number of examinations of company records, it was clearly demonstrated that a uniform fixed percentage on cost does not yield a fair return on the stockholders' average equity so far as individual companies are concerned; consequently, each business must be dealt with on its own merits.

Considerable attention was given to the relation of the profit allowance on a particular product to that portion of the stockholders' average equity used in producing the commodity or performing the services being costed; and return on investment, rather than the percentage on cost, was the principal guide in determining reasonable allowance for profit and interest. The allowances made were also expressed as a percentage on cost for convenience. The method applicable to the largest number of concerns and most satisfactory to the contractor was to determine a reasonable profit on that part of the stockholders' average investment used to produce the article to be delivered. Properly applied, this method involved a complete examination of the contractor's business to determine the character of the assets comprising the stockholders' investment and the manner in which these assets were used in producing the variety of products manufactured.

An established method of ascertaining profit allowance does not appear to be in use among business houses. Many use an arbitrary percentage added to factory cost to cover not only profit and interest but also general expenses, amortization, sinking funds, etc.; some use 10 per cent on cost because of the prominence given this percentage in connection with cost-plus contracts. Most companies appear to establish a selling price by what "the traffic will bear."

For the average concern it was found that the percentage on cost required to allow a return on the stockholders' average equity ranging from 10 per cent to 20 per cent per annum would vary from 2.5 per cent to 15 per cent. In several cases the percentage on cost exceeded 15 per cent; in several instances, profit allowance exceeded 20 per cent on investment, as hereinafter referred to. Comparison of relation of percentages on cost to percentage on investment, taken from various examinations, will be of interest.

Commodity.	Percentage on cost, allowing a return on investment of—	Percentage per annum on investment.
Carburetors.....	4	27.5
Wire and cable.....	6	18.9
Iron chain.....	7	19.6
Searchlights.....	9	20.7
Sul ammoniac.....	10	16.2
Strainers.....	15	12.6

A fair allowance is dependent on the several factors enumerated below, the importance of each varying with the circumstances in a particular case: (a) Percentage return on amount of investment involved; (b) extent to which work is sublet; (c) amount of interest charges to be paid out of the combined allowance for profit and interest; (d) whether the product involved is part of or an adaptation of the company's regular business, whether it was specially designed by the company or produced from Navy design; (e) whether it has been necessary to convert the plant to handle war business; (f) amount of special plant facilities which have or have not been amortized against Government orders; (g) likelihood of additional orders; (h) period for which the price is established; (i) reliability of cost data available; (j) industrial hazards; (k) miscellaneous factors.

The use of return on investment as the principal guide to reasonable profit involves careful attention to the measurement of the two factors entering into

dennite allocation of assets and liabilities as between the various commodities produced; or (b) by averaging the equities at the beginning and end of the period involved, making allowance for dividend disbursements during that period.

The method used in a particular case depends on the character of the particular business involved, the manner in which the accounts have been kept, and the character of the product being costed.

Occasionally both investment and profits could be subdivided between Government business and commercial business, in which case the information was far more reliable. The definite measurement of the amount of investment applicable to a particular order was found difficult to determine; and in the case of integrated companies producing diverse products, such as steel, brass, etc., impossible of measurement within the time available.

The stockholders' investment was approximated as follows:

Cash, receivable and inventories-----	\$-----
Less accounts and notes payable and accrued liabilities-----	-----
Balance, working capital-----	-----
Add land, buildings, equipment (less mortgages)-----	-----
Total, stockholders' equity-----	=====
Represented by:	
Capital stock-----	-----
Surplus, per books-----	-----
Surplus reserves-----	-----
Stockholders' credit balances-----	-----
Total-----	-----
Less:	
Intangible assets (good will, patents) not represented by cash expenditures-----	-----
Investment in properties or securities not applicable to product being costed-----	-----
Stockholders' debit balances-----	-----
Total deductions-----	-----
Balance, stockholders' equity (as above)-----	-----

Capital stock represents the net amount outstanding. From the total stock issued was deducted all treasury stock, unissued stock, and unpaid subscriptions. Premium on capital stock was added.

Surplus per books as shown in the accounts.

Surplus reserves consist of any segregation of surplus which may be made in an individual case for reserve for contingencies; reserve for inventories to cover possible drop in market value after the war; excessive reserves for bad debts, etc. Included also is the reserve for Federal taxes where the assets represented by such reserve are used productively until actual disbursement is made; and from an operating viewpoint it is immaterial whether or not a formal segregation of surplus is made by the company. If the reserve is represented by cash funds or marketable securities, the assets also were eliminated.

Stockholders' credit balance may be represented by dividends credited but not withdrawn; by loans or advances made by stockholders or partners (in the case of partnerships) or other items which in fact represent investment used productively and which are not charged to cost.

Elimination of good will and patents not represented by cash expenditures intended to eliminate "water." If the profit allowance is to be based on the stockholders' average investment, it is essential to eliminate any "water" which may exist, whether it be buried in a "plant, good will, patent," etc., account or whether the intangible items appear separately. It was necessary in

the profits or expenses connected therewith considered in the profit allowance. Stockholders' debit balances were represented by unpaid capital stock balances, loans to stockholders, etc., and were excluded as being in fact a reduction of the stockholders' investment used productively.

Some companies handle variegated products, part of which have a quick turnover and part a relatively slow turnover. In such cases care was taken to see whether the average turnover of the business as a whole was applicable to the particular product being costed and, if not, to what extent arbitrary adjustment should be made. The importance of ascertaining turnover is evident. If the cost of goods sold is equal to the stockholders' equity, there is a turnover of "one;" and, consequently, 15 per cent on cost will allow a return of 15 per cent on investment. If the cost of goods sold is twice the average stockholders' equity, the turnover is two times; and, consequently, only $7\frac{1}{2}$ per cent on cost is necessary to allow the same rate of 15 per cent return on investment. Conversely, if the cost of goods sold be one-half of the average stockholders' equity, the turnover is one-half; and, consequently, 30 per cent on cost must be allowed to give the same 15 per cent return on investment, all of which may be stated as follows:

Case.	Average investment.	Cost of sales.	Turn-over.	15 per cent on investment.	Per cent on cost required to give 15 per cent on investment.
1.....	\$100,000	\$100,000	1.0	\$15,000	15.0
2.....	100,000	200,000	2.0	15,000	7.5
3.....	100,000	50,000	.5	15,000	30.0

These variations are due primarily to the character of the product rather than to management.

It is immaterial whether the profit allowance is divided interdepartmentally or intercompany, provided the total profit included in the final price is reasonable.

Where profit allowance is an arbitrary percentage on cost no interdepartment profit was allowed. A producer of forgings requested that reasonable price be ascertained by adding cost of ingot plus 15 per cent profit thereon plus cost of forging plus 15 per cent profit on accumulated total. It was stated that if the forging manufacturer purchased the ingot the first profit would be obtained by the ingot producer, and the forging manufacturer would obtain a profit on a forging cost which included ingot cost plus the first profit. Claim was disallowed on the ground that the profit allowance of 15 per cent on cost was intended to cover both processes, and if either one only had been undertaken the rate would have been reduced.

Where the profit allowance is based on a return on investment, it is immaterial whether the profits be built up by operations or determined for the job as a whole, inasmuch as the total profit will be the same in either case.

Definition of costs.—The definition under which costs are determined under a Navy order is the same as that appearing in the standard manufacturing cost-plus contract already referred to, except, for special reasons, in the matter of rent. The determination of proper costs upon which final prices are based does not in any sense involve a discrimination between the terms under which the Government and the public shall purchase. It involves merely a determination of the proper distribution of costs to the various contracts in the contractor's plant, certain improper elements of cost being disallowed and certain other expenditures being taken care of out of profits where they should be.

Overhead in cost determinations.—The overhead expenses as shown by the books of account were set out so as to segregate allowable items from those specifically disallowed, and where practicable were subdivided as between fac-

tory and general and supported with schedules showing detailed classification. The basis upon which overhead expenses are apportioned to the Navy order are indicated in detail and showed length of time such basis of apportionment had been in use. Only that portion of the overhead expense which is equitably assignable to the period of production was allowed.

Selling expense in cost determination.—It appeared that all selling commissions are in fact no-contract-no-fee arrangements, and as such should not be charged against Navy business. In *Crocker v. United States* it is stated:

"The Supreme Court has denounced the procurement of Government contracts by agents employed on a contingent-fee basis, declaring that there is no difference in principle between agreements to procure favors from legislative bodies and agreements to procure them in the shape of contracts from executive officials; that the no-contract-no-fee arrangement suggests an attempt to use sinister and corrupt means."

Any contractor can have his name placed on the bidders' list, to be notified of the prospective purchases upon which he may desire to bid. In view thereof it is unnecessary to pay commissions to agents to obtain Navy business, and if such commission is paid it is not as a matter of department policy considered as a legitimate item chargeable against cost of product sold to the Navy.

This exclusion is particularly applicable to an arrangement whereby a Washington representative was paid a commission on all sales to the Navy, whether the order is placed through him or directly with the home office or in some cases with other offices of the company.

Where the sales agent was also the owner of the concern producing the product, the arrangement between the sales and producing concerns was ignored and the two concerns treated as a single organization, similar to the method adopted in cases where the contractor sublets the entire contract.

Excessive salaries and bonuses in cost determinations.—Excessive salaries were view as a distribution of profits and hence excluded from costs. The line of demarcation between fair and excessive salary is admittedly indistinct, so each case was dealt with on its merits and full consideration was given to the actual services rendered by the individuals concerned. This was of special importance where the party drawing an excessive salary was interested in the profits either through a profit-sharing arrangement or as a stockholder. In one case, the allowance for salary of the president was reduced from \$20,000 to \$5,000. The reason assigned for the payment of the higher salary was that the president had supplied the necessary funds when needed. However, compensation for such funds was made through the profit allowance because the capital furnished was included in the investment upon which the profit allowance was based. Under the circumstances, an allowance for executive services could be made and \$5,000 appeared to be the maximum allowance which the circumstances warranted. Similarly, the president of a company who owned substantially all the capital stock was paid a salary of \$120,000 per year. This was reduced to \$20,000 for similar reasons.

Bonuses based on profits were generally disallowed, being in effect a distribution of profits and hence not cost of operation. In one case, the executive bonuses amounted to 41 per cent of the general overhead. They were disallowed in all cases where they were not being paid in accordance with contract and where they consist of a voluntary distribution dependent on the profits as determined at the end of the year.

An exception was made where the combined salary and bonus were not excessive compensation for services rendered. Whether the bonus is paid in cash or in stock is immaterial, provided the cash value, rather than the par value, of the stock is the amount charged to overhead.

Taxes in cost determinations.—Income taxes imposed by the United States were excluded as a proper charge against the contractor's profits. The Navy Department can not reimburse a contractor for taxes levied by Congress, such procedure being in effect a refund of the taxes levied and hence contrary to law.

It may also be pointed out that the exclusion of income taxes is essential to avoid the endless circle wherein the greater the tax levied by Congress, the larger the profit to the contractor and the increased profit in turn resulting in an increased tax.

In the case of capital stocks representing ownership of plant facilities used for production, consolidated statements were prepared so that the expenses of subsidiary companies may be properly taken up in costs and their assets and liabilities in the investment. Loss on sale of other securities or shrinkage

in their market value is wholly unrelated to the production of articles purchased by the Navy and was not accepted as a charge. Similarly, income derived from securities, expenses, or interest incurred while carrying securities, or profit obtained on their sale, was excluded from costs.

Depletion in cost determinations.—Where the product being costed involved a reduction in the mineral resources of the contractor through extraction of the mineral, a fair allowance was made for loss in capital values arising from the diminution of the quantity of mineral in the ground. Like depreciation, the original cost of the mineral properties was prorated over the estimated life on the basis of tonnage or time.

Allowance for depletion of sand and gravel and other mineral lands was arrived at by spreading the original cost over the estimated tonnage or life of the property.

The contractor usually submitted claim for depletion allowance based on the appraised value of the beds (generally the market value) rather than original cost, claiming that the original cost did not represent the value to him. This claim was disallowed in the case of a sand and gravel bed, because the present value placed thereon existed merely because of the excessive price obtained for sand and gravel, and it was these prices which were under examination. Market value depends on the profit which can be derived from the sale of the product. Basing the depletion charge on the market value results in an endless circle wherein the higher depletion charge warrants higher selling prices, and the higher selling prices react to increase the market value of the beds.

Local conditions vary so greatly that standard rates of depletion are of little value. In one case, no allowance for depletion was made, because there was no actual depletion in quantity. The gravel beds were constantly replenished through added deposit made by natural action of a mountain stream. The royalty for right to extract product paid on leased beds would be charged to operating expenses. The purchase price of such lease would be spread over the output on the basis of tonnage or term of lease.

Contingencies in cost determinations.—Contingency allowance is intended to cover items of cost which will probably be incurred, but the amount of which is not definitely measurable at the time the examination is made. It was limited to such costs as would be allowed if the amount were known, and it was not intended to allow the contractor an additional profit through an excess charge for contingencies nor to cover general business hazards which were considered in connection with the reasonable profit allowance.

The allowance for contingencies as a flat percentage on prime cost or total cost was eliminated wherever possible, and in place thereof specific allowance made for estimated increase in labor cost, increase in material cost, replacements of defective materials, etc., and allowance invariably showed for what purpose made, and each item was supported by sufficient data to substantiate the reasonableness thereof.

No profit was allowed in the first-mentioned case, where contingency allowance represents a flat percentage on prime cost or total cost. Profit was allowed in the latter case.

Royalties, etc., in cost determinations.—In case of proprietary articles (articles or brands obtainable only from one company), special attention was given to claims for royalties, patent expense, development expense, etc. Unless a royalty was actually paid to a patent holder foreign to the corporation, it was essential that the nature of development and patent expenses be clearly set forth, showing preferably the amount of these expenses by years and whether or not part thereof had been charged off in the past. The question of (a) the validity of the patent, (b) its value, or (c) the reasonableness of the royalty claimed was then submitted to the Secretary of the Navy. Royalty allowances were regarded as extraordinary payments upon which no profit was allowed.

Royalties actually paid to patent holders foreign to the company were given consideration.

Where a royalty was actually paid to officers or stockholders financially interested in a company, information was required as to whether the individual claiming the royalty incurred the development and patenting expenses himself or whether these expenses were actually paid by the company.

Royalty allowance was recommended in a case where the development expenses had not been charged to costs nor included in the investment upon which the profit allowance was based.

Royalties for the use of the company's own patents or paid to a holding company were disallowed when examinations indicated that practically all engineer-

Proportion of this amortization was allowed only where the manufactured article being costed was covered by the patent or manufacturing rights.

Any allowance, either through royalties or amortization, was based on the cash cost of patents and manufacturing rights, and if capital stock was issued, information as to cash value thereof was required.

For the purpose of coordinating the policies of the War Department and Navy Department in patent matters, the Secretary of War and the Secretary of the Navy established a munitions patent board. This board was formed to consider clauses in the contracts of the respective departments dealing with patents, questions as to validity or infringement of patents and patentability of inventions; questions as to the amount of compensation to be paid for patents or for the use of patents and all other miscellaneous questions as to patents which arose, in which the two departments were interested. As to the Navy matters, action of the board was subject to final approval of the Secretary of the Navy.

Where questions as to royalty allowance arose, all patent and development expenses were excluded from overhead if possible and set out as a separate factor. The amount of such expenses was considered in arriving at the royalty allowance. In each case consideration was given to the question as to whether an allowance for profit on such expenditures will be warranted.

Navy-yard accounting.—Examination of the accounting system of several hundred commercial concerns has disclosed the fact that nowhere in the country has more care and study been given to the development of a proper cost-accounting system, with all that means in control, economy, and efficiency, than has been devoted to the navy-yard system.

The natural result of the war was to center attention on those matters which directly pertained to its successful prosecution, and interest in the cost-accounting system was thus overshadowed; but progress was made in the strengthening and developing of this system. A comprehensive classification of expense accounts is in use, from which the expenses of operating and maintaining the various activities of the industrial yards are obtained for administrative purposes.

In order to apply in the most useful way the large amount of information assembled by the industrial-accounting system, authority has been requested to revise the overhead rates charged to the cost of work so as to make them represent the actual industrial overhead expense.

Statistical machines using the punched-card system were installed in the accounting departments at all but one of the continental industrial navy yards and in Supplies and Accounts. These machines have proved to be valuable labor-saving devices in compiling expenditures and cost data. The advantage of the card system over old-style bookkeeping is in the varied analyses that can be made from one set of data simply by re-sorting the cards, whereas under the manual system separate postings and additions had to be made.

Due to the expansion of shore-station facilities incident to the war, it was deemed necessary to establish a method whereby a detailed record of the improvements at each nonindustrial station could be maintained, similar to the method already in use for obtaining a perpetual inventory at industrial yards. Instructions were accordingly issued that all charges for additions and improvements to nonindustrial stations should be carried in a work-in-progress account until a unit is completed when an inventory card is submitted. This inventory card contains, in addition to the cost of the item, a full description of the property.

Stores accounting.—In order to bring all cost and expenditure records more nearly up to date, the rendition of shore-station stores returns monthly instead of quarterly was inaugurated. This resulted in furnishing prompt current information in connection with stock upkeep as to the balance of stores on hand by classes of material.

During the war, a great deal of material was purchased which, due to its special characteristics, was not appropriate to be purchased and carried under naval supply account. The latter is a selected stock of standard materials carried by supply officers ready for instant issue when needed, but not intended

finance account, which had existed for the carrying of special ordnance materials, was expanded to include all special materials purchased directly under appropriations, and its name was changed to the appropriation purchases account. At the same time the total number of stores accounts was reduced by transferring to the used-material account the stores carried under the former survey and condemned-stores accounts.

The turning back of a great deal of material after the armistice before it had been possible for supply departments to entirely account for its issue created a situation which was met by transferring to the accounting officers of the navy yards the principal accounting functions of supply departments, so that these special conditions could be disposed of and the routine hereafter carried on by officers whose primary responsibility while so detailed is accounting instead of by supply officers whose primary responsibility is to procure, store, and issue material. Standard methods of maintaining stock records and inventories were instituted and a standard accounting practice established whereby a bank balance might be struck daily by accounting officers of the operations of the supply departments similar to the daily balances struck by accounting officers in connection with the industrial work of the yards.

The use of estimated prices in expending material when invoice prices are not available was installed, resulting in relieving the congestion of vouchers and accelerating the movement of papers.

The Navy stores accounting subsection was established the latter part of February, 1918, for the purpose of accounting for Government materials purchased for or issued to Navy contractors for fabrication or assembling. Its scope was later broadened until it embraced accounting in connection with sales to allied powers, Shipping Board, and other Government departments; repairs to Shipping Board vessels; adjustable fixed-price contracts, and special contracts; special plant structures and equipment; sale of salvage material; transfers between supply officers and cost inspectors; and importation of raw material. During the period from March 1, 1918, to February 28, 1919, 15,690 vouchers, amounting to \$190,074,620.10, were received and 4,867 expenditure invoices, representing a total value of \$147,326,981.70 were prepared.

Accounting in Europe.—In the fall of 1918, at the request of the commander of the European forces, attention was given to the standardization of accounting practice at the United States naval stations in France and England; but with the signing of the armistice the problems ahead were simplified and resolved themselves largely into matters of payment and distribution of charges of bills rendered by allied Governments, accounting for demobilized material and the establishment at the naval headquarters in London of a central record of appropriation obligations and expenditures.

British claims for supplies and services rendered the United States Navy covered by 20,000 vouchers were accounted for in the London accounting office from November 1, 1918, to April 1, 1919. During this period, the disbursements amounted to \$10,822,271.31 and disallowances on claims amounted to \$128,548.92.

Naval overseas transportation service accounting.—Accounting for the importation of raw materials for naval use and materials furnished Navy contractors for sales of material to allied powers and other departments of the Government and for adjustments with the War Department and Shipping Board on account of cost of maintenance and operation of vessels operated for them by the Navy assumed large proportions.

It was necessary for the Navy to determine freight rates for the transportation on naval vessels of cargo for the Allies, other Government departments, and private parties made necessary by the ocean tonnage situation. The Shipping Board cooperated in this matter as well as in the matter of making settlements with the owners of requisitioned vessels for the value of consumable and non-consumable stores on vessels assigned to the Navy.

The organization of the naval overseas transportation service subsection of the Accounting Division was made necessary when vessels owned by private concerns or owned or commandeered by the Shipping Board, in which commercial and Navy cargoes were carried, were chartered and operated by the Navy and when the Navy began to operate vessels for the accounts of the Shipping Board and War Department.

This subsection acted as an information bureau and published lists to the naval service showing the status of various vessels in the naval overseas transportation service. It also maintained statistical records showing the cost of operation by vessels. One hundred and forty-two requisitions, amounting to \$11,000,000 were prepared covering payment for consumable supplies, charter hire, payments in lieu of repairs, advances to cover traveling expenses of personnel, and miscellaneous items. Of this amount, \$7,000,000 represented charter hire. Only charter hire paid for Dutch and privately owned vessels operated by the Navy for its own account is included in these figures.

Foreign exchange.—Early in the war the foreign exchange situation in South America made it necessary to obtain authority from the Treasury Department to negotiate and account for bills of exchange at the commercial rate, in order not to work a hardship on the officers and men of the Navy by paying them at the mint value, which had been the former practice.

Shortly after the entrance of the United States into the war the foreign exchange situation became such that the Navy Department, upon advice of the Treasury Department, designated foreign depositories in Great Britain, France, and Italy to handle payments made abroad, thus obviating the necessity of Treasury checks being issued abroad and the consequent chance of their loss in transit.

This arrangement also took Treasury checks out of the exchange market, making it easier for the Governments concerned to control the exchange situation and help to prevent violent fluctuations in rates.

The foreign Governments having agreed with the Treasury Department upon a rate at which they would exchange business for a certain month, the placing of funds with these foreign depositories became an easy matter. It required simply a request by cable that the French Government, for instance, place francs to the credit of a Navy disbursing officer with the designated depository. Upon notice by cable that this had been done the equivalent of this amount in dollars was placed to the credit of the French representative in this country by the Treasury Department.

Disbursing officers' accounts.—The indications are that the money expended by disbursing officers during this period of stress has been satisfactorily accounted for, notwithstanding the tremendous volume and pressure of work. Many accounts, however, covering the principal period of activity remain to be examined by the Auditor for the Navy Department; and to simplify the conditions under which relief might be given where losses have occurred without fault of the disbursing officer, or where proper vouchers could not be procured, the naval appropriation act for the fiscal year 1920 provides that items of this kind shall be allowed by the accounting officers of the Treasury on certificates of the Secretary of the Navy.

Total appropriations for the war.—The following statement shows the amount of money made available to the Navy for the prosecution of the war:

Available balance Apr. 1, 1917-----	\$26, 716, 218. 48
Naval act, Mar. 4, 1917-----	516, 607, 387. 08
Deficiency act, Apr. 17, 1917-----	9, 081, 569. 71
Deficiency act, June 15, 1917-----	514, 805, 033. 87
Deficiency act, Oct. 6, 1917-----	561, 483, 059. 29
Public, No. 62, Oct. 6, 1917-----	150, 000. 00
Deficiency act, Mar. 28, 1918-----	63, 569, 809. 25
Public, No. 140, Apr. 26, 1918-----	1, 000, 000. 00
Deficiency act, June 4, 1918-----	25, 907, 000. 00
Naval act, July 1, 1918-----	1, 573, 388, 360. 84
Deficiency act, July 8, 1918-----	8, 322, 208. 24
Public, No. 223, Oct. 17, 1918-----	4, 550, 000. 00
Deficiency act, Nov. 4, 1918-----	107, 928, 043. 69
Deficiency act, Feb. 25, 1919-----	276, 962, 225. 36
Allotted by President from appropriation "National security and defense"-----	1, 883, 408. 90
Total amount appropriated-----	3, 692, 354, 324. 71
Less amount returned to Treasury by second deficiency act approved Feb. 25, 1919-----	334, 360, 446. 65
Net total-----	3, 357, 993, 878. 06

The amounts appropriated were distributed to the various bureaus of the Navy Department as follows:

	Amount appropri- ated.	Amount returned to Treasury by act of Feb. 25, 1919.	Net amount available for expenditures.
Office of the Secretary.....	\$1,195,993,614.05	\$98,000,000.00	\$1,097,993,614.05
Bureau of Yards and Docks.....	223,370,706.57	2,713,627.00	220,657,079.57
Bureau of Navigation.....	81,819,937.43	4,500,000.00	77,319,937.43
Bureau of Ordnance.....	825,314,875.87	164,833,843.69	660,481,032.18
Bureau of Construction and Repair.....	147,322,371.87		147,322,371.87
Bureau of Steam Engineering.....	110,014,296.59		110,014,296.59
Bureau of Supplies and Accounts.....	839,583,354.04	23,096,000.00	816,487,354.04
Bureau of Medicine and Surgery.....	38,032,937.09		38,032,937.09
Marine Corps.....	204,186,012.72	41,216,975.96	162,969,036.76
Amount available Apr. 1, 1917.....			26,716,218.48
Total.....	3,665,638,106.23	334,360,446.65	3,357,993,878.06

The fund made available for the use of the Navy during the period from April 1, 1917, to June 30, 1919, amounted to \$3,357,993,878.06. Assuming that the expenditures for the Navy on a peace basis during this period would have continued to increase at the same rate as during the decade from 1907 to 1916 in which time the annual cost of the Navy grew from \$98,392,144.07 to \$152,-821,540.67, the total expenditures for the Navy on a peace basis from April 1, 1917, to June 30, 1919, would have been \$375,598,947.77. Deducting from this the total available amount of \$3,357,993,878.06 shows that the additional amount of money required by the Navy on account of the war was \$2,982,394,930.29.

SAMUEL MCGOWAN.

A.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., April 20, 1916.

To: Commanders in chief, commanding officers, and commandants.

Subject: Reported maximum stowage capacity of individual vessels.

1. The attached tables, showing the maximum stowage capacity of provisions, clothing, and naval-supply account stock, have been compiled from figures furnished by the commanding officer of each ship listed.

2. These tables are for the information and guidance of all concerned, and have been prepared for the special purpose of providing commandants with an accurate basis for estimating the quantities of each kind of supplies that will be needed to completely fit out for sea all vessels basing on the yards under their command.

3. While there may be slight disparities in some of the figures (where sister ships are shown to differ from each other in regard to the quantities of supplies they can carry), the tables will be used as a basis for fitting out the fleets, and should be of material assistance to commanders in chief in arriving at a correct estimate of the situation with respect to logistics.

SAMUEL MCGOWAN.

Ships.	Com- plement.	Cold- storage capacity (pounds).	Refrig- erated meats (days).	Non- perishable provisions (days).	Naval supply ac- count stock (days).	Clothing and small stores (days).
ATLANTIC.						
Arkansas.....	1,025	55,000	45	180	365	210
Alabama.....	804	13,500	18	160	180	180
Connecticut.....	911	38,000	40	100	180	180
Delaware.....	894	30,000	30	150	180	180
Florida.....	932	36,000	42	180	190	180
Georgia.....	903	40,000	45	90	150	180
Illinois.....	700	13,000	18	160	180	180
Kansas.....	957	30,000	39	90	180	180
Kearsarge.....	600	11,000	18	90	180	180
Kentucky.....	600	11,000	18	90	180	180
Louisiana.....	862	35,000	40	120	180	365
Minnesota.....	845	38,000	45	90	180	180
Michigan.....	796	35,000	45	150	180	180
Maine.....	756	22,000	30	100	190	190
Missouri.....	700	20,000	35	70	120	180
New York.....	1,021	50,000	50	180	210	180
North Dakota.....	932	26,000	28	150	240	180
Nebraska.....	887	35,000	44	90	180	150
New Jersey.....	900	28,000	35	90	240	180
Nevada.....	1,065	36,000	35	180	365	180
New Hampshire.....	900	30,000	30	90	150	180
Oklahoma.....	992	50,000	50	185	365	180
Ohio.....	794	18,000	25	90	180	180
Rhode Island.....	896	32,500	35	95	180	180
South Carolina.....	801	35,000	45	150	180	180
Texas.....	972	50,000	50	180	210	180
Utah.....	944	36,000	40	189	180	180
Virginia.....	888	32,000	40	90	180	180
Vermont.....	952	35,000	40	132	180	225
Wyoming.....	1,050	55,000	55	180	300	210
Wisconsin.....	669	16,500	18	108	180	180
Baltimore.....	282	6,500	20	60	100	150
Birmingham.....	326	38,000	50	120	240	270
Columbia.....	363	8,000	25	90	180	200
Castine.....	147	5,000	50	90	180	180
Chester.....	368	27,000	100	120	200	180
Dubuque.....	142	4,200	28	50	180	90
Dixie and 18 destroyers.....	1,855	50,000	20	105	150	120
Des Moines.....	303	7,000	30	105	180	180
Fulton.....	134	13,900	100	100	180	180
Hancock.....	1,215	80,000	60	120	210	270
Lebanon.....	61	8,940	75	90	180	180
Marietta.....	147	4,000	30	25	120	120
Machias.....	150	3,000	20	75	90	90
Montana.....	945	40,000	40	90	240	120
North Carolina.....	846	35,900	50	120	210	180
Nashville.....	180	5,500	30	60	90	180
Ozark and 4 submarines.....	244	7,000	20	14	120	.....
Prairie.....	214	28,000	120	600	180	180
Panther.....	153	10,000	30	180	180	365
Petrel.....	130	4,500	22	65	90	60
Severn and 5 submarines.....	169	.....	3	70	120	120
Salem.....	371	36,000	75	180	180	180
Sacramento.....	131	7,000	30	180	279	180
San Francisco.....	303	4,500	21	70	120	120
Tonopah and 5 submarines.....	249	4,500	25	75	180	180
Tallahassee.....	161	5,800	18	36	120	90
Tacoma.....	274	6,000	35	90	365	365
Tennessee.....	844	41,000	45	120	150	180
Vestal.....	244	8,000	25	150	180	180
Washington.....	934	35,000	45	80	120	150
Wheeling.....	122	4,000	30	50	210	120
Yankton.....	83	1,100	15	120	180	120
Celtic.....	140	5,130	30	60	180	60
Culgoa.....	129	15,000	90	90	120	365
Solace.....	140	13,000	90	120	180	180
PACIFIC.						

NAVAL INVESTIGATION.

2397

Ships.	Com- plement.	Cold- storage capacity (pounds).	Refrig- erated meats (days).	Non- perishable provisions (days).	Naval supply ac- count stock (days).	Clothing and small stores (days).
PACIFIC—continued.						
Cleveland.....	274	7,000	35	120	180	180
Cheyenne and 3 submarines...	235	2,000	15	90	120	75
Denver.....	321	8,000	30	120	150	180
Glacier.....	145	12,000	80	60	365	365
Iris and 9 destroyers.....	777	13,500	15	150	120	120
Milwaukee.....	650	18,000	45	120	180	350
Maryland.....	778	36,600	45	70	180	180
New Orleans.....	313	4,570	21	150	150	210
Oregon.....	631	19,000	30	60	180	180
Pittsburgh.....	845	35,000	45	90	180	120
Raleigh.....	256	5,000	30	45	52	120
South Dakota.....	768	40,000	95	150	180	180
Saratoga.....	542	11,050	18	138	180	275
San Diego.....	903	35,000	45	130	180	120
St. Louis.....	268	17,323	35	58	80	270
West Virginia.....	846	30,000	45	70	180	120
Yorktown.....	182	3,200	10	30	30	30
ASIATIC.						
Brooklyn.....	620	23,000	45	120	240	180
Cincinnati.....	294	3,500	18	40	90	90
Galveston.....	308	5,000	18	100	180	100
Helena.....	189	2,500	23	137	180	167
Monadnock and 9 submarines...	224	.....	2	28	180	75
Mohican and 9 submarines.....	193	.....	15	90	150	.....
Pompey and 5 destroyers.....	500	.....	7	120	150	180

¹In order that all ships when fitted out for sea will have at least a 30 days' supply of meats, vessels whose cold storage capacity is inadequate to carry enough refrigerated meats to last that length of time will take such tinned meats as, added to the maximum quantity of refrigerated meats possible to stow, will be sufficient for 30 days.

B.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., June 22, 1915.

To: All commanders in chief, commanding officers, and commandants.

Subject: Fitting out the fleet—provisions.

The following quantities of individual articles of provisions required to subsist for 30 days the number of persons stated opposite each are averaged from itemized reports recently received from 21 battleships of the Atlantic Fleet and 21 smaller vessels—the figures in all cases being practically in agreement with the quantities actually expended during 10 months of the battleship cruise around the world:

	1,000.	2,000.	3,000.	4,000.	5,000.	6,000.	7,000.	8,000.	9,000.
Apples, dried.....pounds..	279	558	837	1,115	1,394	1,673	1,952	2,231	2,510
Apricots.....do.....	892	1,785	2,677	3,569	4,461	5,354	6,246	7,138	8,031
Butter.....do.....	3,102	6,204	9,305	12,407	15,509	18,611	21,712	24,814	27,916
Bacon, tinned.....do.....	1,156	2,311	3,467	4,622	5,778	6,934	8,089	9,245	10,400
Beef, corned.....do.....	1,595	3,189	4,784	6,378	7,973	9,567	11,162	12,756	14,351
Beef, chipped.....do.....	177	354	531	708	885	1,062	1,239	1,416	1,593
Beans, string, tinned.....do.....	853	1,707	2,560	3,414	4,267	5,121	5,974	6,828	7,681
Beans, white, navy.....gallons..	501	1,001	1,502	2,003	2,503	3,004	3,505	4,005	4,506
Beans, lima, dried.....do.....	65	131	196	262	327	392	458	523	589
Beans, lima, tinned,pounds..	402	804	1,206	1,608	2,010	2,412	2,815	3,217	3,619

	1,000.	2,000.	3,000.	4,000.	5,000.	6,000.	7,000.	8,000.	9,000.
Cheese.....pounds..	306	611	917	1,222	1,528	1,833	2,139	2,444	2,750
Crackers.....do.	256	513	769	1,026	1,282	1,539	1,795	2,052	2,308
Extracts.....gallons..	4	9	13	17	21	26	30	34	39
Flour, wheat.....pounds..	24,270	48,540	72,810	97,080	121,351	145,621	169,891	194,161	218,431
Hominy.....do.	262	525	787	1,050	1,312	1,575	1,837	2,100	2,362
Hops.....do.	27	54	81	108	135	162	190	217	244
Ham, smoked.....do.	972	1,944	2,916	3,888	4,860	5,832	6,804	7,776	8,748
Ham, sugar cured.....do.	1,073	2,145	3,218	4,290	5,363	6,435	7,508	8,580	9,653
Jams.....do.	759	1,519	2,278	3,037	3,797	4,556	5,315	6,075	6,834
Lards.....do.	1,857	3,714	5,571	7,428	9,285	11,142	12,999	14,856	16,713
Meat, refrigerated.....do.	27,548	55,097	82,645	110,194	137,742	165,291	192,839	220,388	247,936
Milk, evaporated.....do.	3,123	6,246	9,369	12,491	15,614	18,737	21,860	24,983	28,106
Macaroni.....do.	378	755	1,133	1,511	1,888	2,266	2,644	3,021	3,399
Mustard.....do.	29	57	86	114	143	172	200	229	257
Mince-meat.....do.	295	589	884	1,179	1,473	1,768	2,063	2,357	2,652
Oil, salad.....gallons..	32	65	97	130	162	194	227	259	292
Oats, rolled.....pounds..	629	1,258	1,887	2,516	3,145	3,775	4,404	5,033	5,662
Peas, tinned.....do.	1,329	2,659	3,988	5,317	6,647	7,976	9,306	10,635	11,964
Peas, split.....gallons..	28	56	83	111	139	167	195	222	250
Prunes.....pounds..	828	1,655	2,483	3,310	4,138	4,965	5,793	6,620	7,448
Peaches, tinned.....do.	1,147	2,294	3,441	4,588	5,735	6,882	8,030	9,177	10,324
Peaches, dried.....do.	151	302	453	604	755	906	1,056	1,207	1,358
Pickles.....do.	342	685	1,027	1,370	1,712	2,054	2,397	2,739	3,082
Pepper.....do.	48	97	145	193	242	290	339	387	435
Pumpkin, tinned.....do.	336	672	1,007	1,343	1,679	2,015	2,350	2,686	3,022
Pears, tinned.....do.	924	1,848	2,772	3,697	4,621	5,545	6,469	7,393	8,317
Rice.....do.	972	1,944	2,916	3,888	4,860	5,832	6,803	7,775	8,747
Raisins.....do.	134	267	401	535	669	802	936	1,070	1,203
Salmon, tinned.....do.	724	1,449	2,173	2,998	3,822	4,646	5,071	5,795	6,520
Spices.....do.	25	51	76	102	127	153	178	204	229
Salt.....do.	1,207	2,413	3,620	4,826	6,033	7,239	8,446	9,652	10,859
Sirup.....gallons..	79	159	238	317	397	476	555	635	714
Sugar.....pounds..	8,390	16,781	25,171	33,561	41,952	50,342	58,733	67,123	75,513
Sardines.....do.	587	1,173	1,760	2,347	2,934	3,520	4,107	4,694	5,280
Sauerkraut.....do.	680	1,360	2,040	2,720	3,400	4,080	4,760	5,440	6,120
Tea.....do.	174	348	522	695	869	1,043	1,217	1,391	1,565
Tomatoes.....do.	3,061	6,123	9,184	12,246	15,307	18,369	21,430	24,492	27,553
Taploca.....do.	142	283	425	566	708	849	991	1,132	1,274
Vegetables, fresh.....do.	43,846	87,691	131,537	175,383	219,228	263,074	306,920	350,765	394,611
Vinegar.....gallons..	84	168	252	336	420	504	588	672	756
Yeast.....pounds..	75	150	225	300	375	450	525	600	675

SAMUEL MCGOWAN,
Paymaster General of the Navy.

C.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., July 31, 1915.

To: All commanders in chief, commanding officers, and commandants.
Subject: Fitting out the fleet—provisions; weights and cubic dimensions of.

1. Supplementing the 30-day provision list printed in circular letter No. 421-12, dated June 22, 1915, there are furnished herewith nine tabulated statements showing the weights, tare, cubic dimensions, and number of packages for 30 days' supply of provisions for the respective numbers of persons stated thereon (1,000 to 9,000, inclusive).

2. The figures in the first column of each sheet are taken from the 30-day provision list mentioned; and the next column, headed "Net full package weight," shows the quantity of each item that will actually be delivered, to avoid the use of broken packages.

3. It will be noted that the weights given to the nearest full package of the various items for all numbers above 1,000 have been determined by using 1,000 as a basis; whereas the maximum variation between the quantity actually required and this quantity figured to the nearest full package could, if desired, be always kept within the weight of one package. If this were done, however, there would necessarily be a slight shortage when the provisions were issued to several ships; so that, in order to as far as possible avoid this, the figures given for from 2,000 to 9,000 men contemplate a division into lots of 1,000 men each.

S. MCGOWAN.

Information concerning 30 days' provision supply.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Pounds.		Pounds.							
		Gallons.	Pounds.	Gallons.	Pounds.						
FOR 1,000 MEN.											
Apples, dried.....	279		300		50	6	16	96	396	2.08	12.48
Apricots.....	892		893		47	19	16	304	1,197	1.33	26.27
Butter.....	3,102		3,096		72	43	28	1,204	4,300	2.50	107.50
Bacon, tinned.....	1,156		1,152		72	16	28	728	1,600	2.17	34.72
Beef, corned.....	1,595		1,594		48	33	22	726	2,310	1.33	43.89
Beef, chipped.....	177		216		72	3	35	105	321	2.91	8.73
Beans, string, tinned.....	853		840		30	28	12	336	1,176	1.00	28.00
Beans, white, navy.....	501	506	3,910	11	85	46	1	46	3,956	2.00	92.00
Beans, Lima, dried.....	65	63	500		100	5	1	5	573	2.17	10.85
Beans, Lima, tinned.....	402		403		31	13	13	169	303	1.00	13.00
Beans, kidney.....	314		300		100	3	1	3	101	2.83	6.51
Barley.....	162		150		20	5	15	75	225	1.17	5.85
Baking powder.....	24		36		36	1	4	4	40	83	9.64
Corn meal.....	388		400		100	4	4	4	404	2.41	9.64
Codfish, tinned.....	209		283		48	6	22	132	420	1.50	9.00
Coffee.....	2,310		2,300		50	46	18	828	3,128	2.02	134.32
Cocoa.....	114		120		40	3	20	60	180	2.00	4.00
Corn, tinned.....	1,255		1,240		31	40	13	520	1,760	1.25	40.00
Cornstarch.....	188		200		5	5	10	50	250	1.25	3.75
Currants.....	97		108		86	3	6	18	136	1.25	3.75
Caulsp.....	96	96	780	16	130	6	35	210	990	3.00	18.00
Cheese.....	306		320		40	8	20	160	480	1.58	12.64
Crackers.....	256		264		22	12	10	120	384	2.25	27.00
Extracts.....	4	4	32	2	16	2	24	48	80	50	1.00
Flour, wheat.....	21,270		24,300		100	243	1	243	24,543	2.76	668.26
Hopniny.....	262		300		100	3	3	3	303	2.50	7.50
Hops.....	27		50		50	1	17	17	67	2.33	2.33
Ham, smoked.....	972		930		93	10	67	670	1,600	3.84	38.40
Ham, sugar cured.....	1,073		1,116		93	12	67	670	1,920	3.84	46.08
Jams.....	759		750		30	25	5	125	875	1.00	25.00
Lards.....	1,857		1,840		40	46	20	920	2,760	1.42	65.32
Meat, refrigerated.....	27,548		27,548							1,01.00	1,322.00
Milk, evaporated.....	3,123		3,120		48	65	17	1,336	29,384	1.50	97.50
Macaroni.....	378		400		50	8	18	144	4,225	2.42	19.26
Mustard.....	29		25		25	1	20	20	45	1.33	1.33
Mince-meat.....	295		300		50	6	10	60	360	2.00	12.00
Oil, salad.....	32	32	258	8	64	4	16	64	320	1.50	6.00

1 Cubic feet per long ton.

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Pounds.		Pounds.							
		Gallons.	Pounds.	Gallons.	Pounds.						
FOR 1,000 MEN—continued.											
Oats, rolled.....	620		648		54	12	19	228	876	3.25	39.00
Peas, tinned.....	1,328		1,328		314	42	124	526	1,848	1.00	42.00
Peas, split.....	28	33	255	11	86	3	1	3	268	2.00	6.00
Prunes.....	828		836		44	19	12	228	1,064	1.25	23.75
Peaches, tinned.....	1,147		1,126		45	25	15	375	1,500	1.33	33.25
Peaches, dried.....	151		150		50	3	14	42	1,192	1.58	4.74
Pickles.....	342		342		57	6	48	288	630	2.75	16.50
Pepper.....	48		50		25	2	19	38	88	1.25	2.50
Pumpkin, tinned.....	336		342		38	9	17	183	495	1.30	11.70
Peas, tinned.....	924		920		46	20	15	300	1,220	1.33	26.60
Rice.....	972		1,000		100	10	1	10	1,010	2.08	20.80
Beans.....	124		120		40	3	15	45	165	1.42	4.26
Salmon, tinned.....	724		720		48	16	22	330	1,080	1.50	22.50
Spices.....	25		25		25	1	1	20	45	1.17	1.17
Salt.....	1,297		1,200		50	24	9	216	1,416	1.17	28.08
Sirup.....	8,390	774	8,400	154	180	5	30	150	1,050	4.33	21.65
Sardines.....	587		584		100	84	1	84	8,484	2.50	210.00
Sauerkraut.....	174		180		33	18	9	162	756	1.08	19.44
Tea.....	3,061		3,060		115	6	25	150	840	4.00	24.00
Tomatoes.....	142		160		40	4	28	112	372	3.84	15.36
Tapiooca.....	43,846	48	43,900		51	60	19	1,140	4,200	1.75	105.00
Vegetables, fresh.....	54		384		100	439	20	8,780	52,680	.50	2.00
Vinegar.....	75		75		128	3	42	126	510	4.00	1,766.00
Yeast.....					25	3	5	15	90	4.92	14.76
										.50	1.50
Total.....			147,846					25,243	173,089		5,423.69
			66					11.27	77.27		
FOR 2,000 MEN.											
Apples, dried.....	558		600		50	12	16	192	792	2.08	24.96
Apricots.....	1,785		1,785		47	38	16	608	2,394	1.33	50.54
Butter.....	6,204		6,192		72	86	28	2,408	8,600	2.50	215.00
Bacon, tinned.....	2,311		2,304		73	32	28	28	896	2.17	69.44
Beef, corned.....	3,189		3,168		48	66	22	1,452	4,620	1.33	87.78
Beef, chipped.....	354		432		73	6	35	210	642	2.91	17.46
Beans, string, tinned.....	1,707		1,680		56	12	12	672	2,352	1.00	56.00
Beans, white, navy.....	1,001	1,012	7,820	11	35	92	1	92	7,912	2.00	184.00

	131	126	1,000	100	10	1	10	1,010	2.17	21.70
Beans, Lima, dried.....do.	804		31	26	338	13	1	1,010	2.17	21.70
Beans, Lima, tinned.....do.	627		100	6	6	1	1	1,144	1.00	26.00
Beans, kidney.....do.	133		200	100	2	1	1	606	2.17	13.02
Barley.....do.	335		300	10	150	15	1	202	2.83	5.66
Baking powder.....do.	48		72	36	8	4	8	450	1.17	11.70
Baking soda.....do.	776		800	100	100	1	1	808	1.66	1.66
Corn meal.....do.	618		576	48	22	22	22	840	2.41	19.28
Codfish, tinned.....do.	4,620		50	92	18	18	264	1,500	1.50	18.00
Coffee.....do.	2,590		240	40	20	20	1,656	6,256	2.92	268.64
Cocoa.....do.	2,590		240	40	20	20	1,656	6,256	2.92	268.64
Cornstarch.....do.	375		40	10	100	10	1,040	3,520	1.00	12.00
Currents.....do.	195		216	36	36	6	1,100	500	1.25	12.50
Catsup.....do.	192	192	150	130	12	35	420	1,980	3.00	36.00
Cheese.....do.	313		640	40	16	35	320	960	1.58	25.28
Crackers.....do.	48,540	8	528	22	24	24	240	768	2.25	54.00
Extractions.....do.	48,540	8	64	16	486	24	486	160	2.50	2.00
Flour, wheat.....do.	525		600	100	486	1	486	49,086	2.75	1,336.50
Hopbiny.....do.	54		600	100	6	1	6	606	2.50	15.00
Hops.....do.	1,944		100	50	34	17	34	134	2.33	4.66
Ham, smoked.....do.	2,145		93	93	2	17	1,340	3,240	2.33	76.80
Ham, sugar cured.....do.	1,519		2,232	93	24	67	1,608	3,940	3.84	92.16
Jams.....do.	3,714		3,680	30	50	5	250	1,750	1.00	50.00
Lards.....do.	55,097		55,096	40	92	20	1,840	5,520	1.42	130.64
Meat, refrigerated.....do.	6,240		6,240	48	2,210	17	3,672	58,768	1.01	2,644.00
Milk, evaporated.....do.	57		800	50	130	18	2,210	8,450	1.50	195.00
Macaroni.....do.	559		50	25	16	18	288	1,068	2.42	36.72
Mustard.....do.	65		600	25	2	20	1,900	1,900	1.33	2.66
Mince-meat.....do.	1,258		512	50	12	20	120	720	2.00	24.00
Oil, salad.....do.	2,650	68	512	50	12	10	120	720	1.50	12.00
Oats, rolled.....do.	1,296		54	24	19	16	128	640	1.752	2.00
Pears, tinned.....do.	2,650		54	24	19	16	128	640	3.25	76.00
Peanut butter.....do.	56		510	84	1,050	124	3,696	3,696	1.00	84.00
Peanut oil.....do.	1,655	66	85	38	6	1	516	516	2.00	12.00
Peas, split.....do.	2,294		44	38	12	12	456	2,128	1.25	47.50
Peaches, tinned.....do.	2,294		45	50	750	15	3,000	3,000	1.33	96.50
Peaches, dried.....do.	685		300	50	6	14	384	3,384	1.58	9.48
Pickles.....do.	97		100	57	12	48	576	1,260	2.75	33.00
Pepper.....do.	672		684	25	78	19	176	1,176	1.25	5.00
Pumpkin, tinned.....do.	1,848		684	38	306	4	990	990	1.30	23.40
Pears, tinned.....do.	1,944		46	40	600	15	306	2,440	1.33	53.20
Rice.....do.	1,449		2,000	100	20	1	600	2,020	2.08	41.60
Raisins.....do.	1,449		40	48	80	15	320	320	1.42	8.52
Salmon, tinned.....do.	51		1,440	30	660	20	2,100	2,100	1.50	45.00
Spices.....do.	2,413		50	25	40	20	90	90	2.34	2.34
Salt.....do.	16,781	155	2,400	48	432	9	2,832	2,832	1.17	56.16
Sirup.....do.	1,173		1,800	180	300	30	2,100	2,100	4.33	43.30
Sugar.....do.	1,380		16,800	100	168	1	16,968	16,968	2.50	420.00
Sardines.....do.	1,380		1,188	33	324	9	1,512	1,512	1.08	36.88
Sauerkraut.....do.	348		1,380	115	800	25	1,080	1,080	4.00	48.00
Tea.....do.	6,123		320	51	2,280	8	224	544	3.84	30.72
Tomatoes.....do.	6,123		6,320	51	2,280	19	8,400	8,400	1.75	210.00

1 Cubic feet per long ton.

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Pounds.		Pounds.							
		Gallons.	Pounds.	Gallons.	Pounds.						
FOR 2,000 MEN—continued.											
Tapioca.....	283		320		40	8	10	80	400	.50	4.00
Vegetables, fresh.....	87,691		87,800		100	878	20	17,560	105,360	4.00	3,512.00
Vinegar.....	108	96	768	16	128	6	42	252	1,020	4.92	26.52
Yeast.....	150		150		25	6	5	30	180	.50	3.00
Total.....			285,692					50,486	346,178		10,847.38
			132					22.54	154.54		
FOR 3,000 MEN.											
Apples, dried.....	837		900		50	18	16	288	1,188	2.08	37.44
Apricots.....	2,677		2,679		47	57	16	912	3,591	1.33	75.81
Butter.....	9,288		9,288		72	129	28	3,612	12,900	2.50	322.50
Racón, tinned.....	3,467		3,456		72	48	28	1,344	4,800	2.17	104.16
Beef, corned.....	4,754		4,752		48	99	22	2,178	6,930	1.33	131.67
Beef, chipped.....	531		648		72	9	35	315	963	2.91	26.19
Beans, string, tinned.....	2,560		2,520		30	84	12	1,008	3,528	1.00	84.00
Beans, white, navy.....	1,518		11,730	11	85	135	1	1,138	11,868	2.00	276.00
Beans, lima, dried.....	189		1,500		100	15	1	15	1,515	2.17	32.55
Beans, lima, tinned.....	1,206		1,209		31	39	13	507	1,716	1.00	30.00
Beans, kidney.....	1,941		1,900		100	9	9	9	909	2.17	19.53
Barley.....	199		300		30	3	3	3	303	2.83	8.49
Baking powder.....	487		450		30	15	15	225	675	1.17	17.55
Baking soda.....	72		108		36	3	4	12	120	.83	2.49
Corn meal.....	1,184		1,200		100	12	12	1,212	1,296	2.41	28.92
Codfish, tinned.....	1,927		1,884		48	18	22	396	1,280	1.50	27.00
Coffee.....	6,931		6,900		50	138	18	2,484	9,384	2.92	402.96
Cocoa.....	3,342		3,360		40	9	20	180	540	2.00	18.00
Corn, tinned.....	3,764		3,720		31	120	13	1,560	5,280	1.00	120.00
Coriander.....	553		600		40	15	10	150	750	1.25	18.75
Coriander.....	292		324		36	9	6	54	378	1.25	11.25
Currants.....	287	288	2,340	10	130	18	35	630	2,970	3.00	54.00
Catsup.....	917		960		40	24	20	480	1,440	1.58	37.92
Cheese.....	769		792		22	36	10	360	1,152	2.25	81.00
Crackers.....	13	12	96	2	16	6	24	144	240	.50	3.00
Extracts.....	72,810		72,900		100	729	1	729	73,629	2.75	2,004.75
Flour, wheat.....	81		900		100	9	9	9	909	2.50	22.50
Hopb.....	81		150		50	3	17	51	201	2.33	6.99
Ham, smoked.....	2,916		2,790		98	30	67	2,010	4,800	3.84	115.20

	3,218	3,348	93	36	67	2,412	5,760	3.84	138.24
Ham, sugar cured.	do.	do.	do.	do.	do.	do.	do.	do.	do.
Jams.	5,271	2,250	30	75	5	375	2,625	1.00	75.00
Lards.	5,520	5,520	40	138	20	2,760	8,280	1.42	195.96
Meat, refrigerated	82,645	82,644	do.	do.	do.	5,508	88,152	101.00	3,066.00
Milk, evaporated.	9,369	9,360	48	186	17	3,315	12,675	1.50	292.50
Maccaroni.	1,353	1,200	do.	do.	do.	432	1,632	2.42	56.08
Mustard.	80	75	25	3	20	60	135	1.33	3.99
Mince-meat.	884	900	30	75	30	180	1,080	2.00	36.00
Oil, salad.	97	96	do.	do.	do.	180	1,080	1.50	18.00
Oats, rolled.	1,887	768	54	36	16	192	1,960	3.25	117.00
Peas, tinned.	3,988	1,944	64	126	19	694	2,628	1.00	126.00
Peas, split.	83	314	126	126	124	1,575	5,544	2.00	18.00
Prunes.	2,483	765	9	9	1	9	774	1.25	71.25
Peaches, tinned.	3,441	2,508	44	57	12	694	3,192	1.33	99.75
Peaches, dried.	453	3,375	45	75	15	1,125	4,500	1.58	14.22
Pickles.	1,027	450	57	9	48	864	1,890	2.75	49.50
Pepper.	145	150	25	6	19	114	1,485	1.30	35.10
Pumpkin, tinned.	1,007	1,026	38	27	17	456	3,690	1.33	79.80
Pears, tinned.	2,772	2,700	46	60	15	900	3,030	2.08	62.40
Rice.	2,916	3,000	100	30	15	30	3,030	1.42	12.78
Raisins.	401	3,360	40	9	15	135	3,495	1.50	67.50
Salmoron, tinned	2,173	2,160	48	45	22	990	3,150	1.17	84.24
Spices.	76	75	25	3	20	60	135	4.33	64.95
Salt.	3,620	3,600	50	72	9	648	4,248	2.50	630.00
Sirup.	238	2,700	180	15	30	450	26,452	1.08	58.32
Sugar.	25,171	25,200	100	252	1	252	2,268	3.84	46.08
Sardines.	1,760	1,782	33	54	9	486	2,520	1.75	315.00
Sauerkraut.	2,040	2,070	115	18	25	450	816	4.00	72.00
Tea.	532	480	40	12	28	336	3,420	1.50	60.00
Tomatoes.	9,184	9,180	51	180	19	120	12,600	4.00	268.00
Taploca.	425	480	40	12	10	120	158,040	4.92	44.28
Vegetables, fresh.	131,537	131,709	128	1,317	20	26,378	1,580	4.50	4.50
Vinegar.	162	1,152	100	9	42	45	519,267	16,271.07	
Yeast.	225	1,225	25	9	5	75,729	231.81		
Total.		443,538				38.81			
		198							
Apples, dried.	1,115	1,200	50	24	16	384	1,584	2.08	49.92
Apricots.	3,569	3,572	47	76	16	1,216	4,788	2.50	101.08
Butter.	12,407	12,384	72	172	28	4,816	17,200	2.17	138.88
Bacon, tinned.	4,622	4,608	72	64	28	2,792	6,400	2.91	173.56
Beef, corned.	6,378	6,336	48	132	22	2,904	9,240	1.00	112.00
Beef, chipped.	708	864	72	12	35	420	1,284	2.00	368.00
Beans, string, tinned.	3,414	3,360	30	112	12	1,344	4,704	2.17	43.40
Beans, white, navy.	2,003	15,640	85	184	1	184	15,824	1.00	368.00
Beans, Lima, dried.	262	2,000	100	50	1	20	2,020	2.00	43.40
Beans, Lima, tinned.	1,608	1,612	31	52	13	676	2,288	1.00	52.00

1 Cubic feet per long ton.

FOR 4,000 MEN.

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Pounds.		Pounds.							
		Gallons.	Pounds.	Gallons.	Pounds.						
FOR 4,000 MEN—continued.											
Beans, kidney.....	1,255		1,200		100	12	1	12	1,212	2.17	26.04
Barley.....	265		400		100	4	1	4	404	2.83	11.32
Baking powder.....	649		600		30	20	15	300	900	1.17	23.40
Baking soda.....	96		144		36	4	4	16	160	.83	3.32
Corn meal.....	1,552		1,600		100	16	1	16	1,616	2.41	38.56
Codfish, tinned.....	1,226		1,152		48	24	22	528	1,680	1.50	36.00
Coffee.....	9,241		9,200		50	184	18	3,312	12,512	2.92	537.28
Cocoa.....	456		480		40	12	20	240	720	2.00	24.00
Corn, tinned.....	5,019		4,960		31	160	13	2,080	7,040	1.00	160.00
Cornstarch.....	751		800		40	20	10	200	1,000	1.25	25.00
Currants.....	380		432		36	12	6	72	504	1.25	15.00
Catsup.....	383	384	3,120	130	24	35	840	3,960	3,960	3.00	72.00
Cheese.....	1,222		1,280	40	32	20	640	1,920	1,920	1.58	50.56
Crackers.....	1,026		1,056	22	48	10	480	1,536	1,536	2.25	108.00
Extracts.....	17	16	128	2	16	8	24	192	320	.50	4.00
Flour, wheat.....	97,060		97,200	100	972	20	1	972	98,172	2.75	2,673.00
Hominy.....	1,500		1,200	100	12	1	12	1,212	1,212	2.50	30.00
Hops.....	108		200	50	4	17	68	268	2,33	9.32	9.32
Ham, smoked.....	3,888		3,720	93	40	67	680	6,400	6,400	3.84	153.60
Ham, sugar cured.....	4,260		4,464	93	48	67	3,216	7,680	3,64	184.32	184.32
Jams.....	3,037		3,000	30	100	5	500	3,500	3,500	1.00	100.00
Lards.....	7,428		7,360	40	40	184	20	3,680	11,040	1.42	261.28
Meat, refrigerated.....	110,194		110,192					7,344	117,536	1101.00	5,288.00
Milk, evaporated.....	12,491		12,480		48	260	17	4,420	16,900	1.50	390.00
Macaroni.....	1,511		1,600	50	32	18	576	2,176	2,176	2.42	77.44
Mustard.....	114		100	25	4	20	80	180	1,33	5.32	5.32
Mince-meat.....	1,179		1,200	50	24	10	240	1,440	1,440	2.00	48.00
Oil, salad.....	130	128	1,024	64	16	16	256	1,280	1,280	1.50	21.00
Oats, rolled.....	2,516		2,592	54	48	19	912	3,504	3,25	156.00	156.00
Peas, tinned.....	5,317		5,262	31½	168	12½	2,100	7,392	2,00	168.00	168.00
Peas, split.....	1,111	132	1,020	85	12	1	12	1,032	2,00	2.00	21.00
Prunes.....	3,310		3,344	44	76	12	912	4,256	1,25	95.00	95.00
Peaches, tinned.....	4,588		4,500	45	100	15	1,500	6,000	1,33	133.00	133.00
Peaches, dried.....	604		600	50	12	14	168	768	1,58	18.96	18.96
Pickles.....	1,370		1,368	57	24	48	1,152	2,520	2,75	66.00	66.00
Pepper.....	183		200	25	8	19	152	352	1,25	10.00	10.00
Pumpkin, tinned.....	1,243		1,368	38	36	17	612	1,980	1,30	46.80	46.80
Peas, tinned.....	3,697		3,600	46	80	15	1,200	4,880	1,33	106.40	106.40
Rice.....	3,568		4,000	100	40	1	40	4,040	4,040	2.08	83.20

Raisins.....do.	535	480	40	12	15	180	660	1.42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Cubic feet per long ton.

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).	
		Pounds.		Pounds.								
		Gallons.	Pounds.	Gallons.	Pounds.							
FOR 5,000 MEN—continued.												
Lards.....	9,285		9,200		40	220	20	4,600	13,800	1.42	326.60	
Meat, refrigerated.....	137,742		137,740			325		9,180	146,920	1.01	6,610.00	
Milk, evaporated.....	15,614		15,600		48		17	5,525	21,125	1.50	487.50	
Macaroni.....	1,888		2,000			60	18	5,720	2,720	2.42	96.80	
Mustard.....	143		125		25	5	20	100	225	1.33	6.65	
Minced meat.....	1,473		1,500			30	10	300	1,800	2.00	60.00	
Oil, salad.....	1,162		1,280		8	20	16	320	1,600	1.50	30.00	
Oats, rolled.....	3,146		3,240		54	60	19	1,140	4,380	3.25	195.00	
Peas, tinned.....	6,647		6,615		314	210	124	2,625	9,240	1.00	210.00	
Peas, split.....	6,139		6,175		11	15	1	15	1,200	2.00	30.00	
Prunes.....	4,138		4,190		85	95	12	1,140	5,320	1.25	118.75	
Peaches, tinned.....	5,735		5,625		44	125	15	1,875	7,500	1.33	166.25	
Peaches, dried.....	1,712		1,750		50	15	14	210	960	1.98	23.70	
Pickles.....	1,712		1,710		57	30	48	1,440	3,150	2.75	82.50	
Pepper.....	1,242		1,250		23	10	19	190	440	1.25	12.50	
Pumpkin, tinned.....	4,679		4,600		38	45	17	765	2,475	1.30	85.50	
Pears, tinned.....	4,821		4,800		46	100	15	1,500	6,100	1.33	133.00	
Rice.....	4,960		5,000		100	50	1	1,500	5,050	2.08	104.00	
Raisins.....	669		600		40	15	15	225	825	1.42	21.30	
Salmon, tinned.....	3,022		3,000		48	75	22	1,050	5,250	1.50	112.50	
Spices.....	177		125		25	5	20	100	205	1.17	5.85	
Salt.....	6,033		6,000		60	120	9	1,080	7,080	1.17	140.40	
Sirup.....	397	3874	4,500	164	180	25	30	30	750	5,250	4.33	108.25
Sugar.....	41,952		42,000		100	420	1	420	42,420	2.50	1,050.00	
Sardines.....	2,934		2,970		33	90	9	810	3,780	1.08	97.20	
Sauerkraut.....	3,400		3,450		115	30	25	750	4,200	3.84	76.80	
Tea.....	849		800		40	20	28	560	1,360	3.84	76.80	
Tomatoes.....	15,307		15,300		51	300	19	5,700	21,000	1.75	525.00	
Tapoca.....	706		800		40	20	10	1,000	1,000	1.50	10.00	
Vegetables, fresh.....	219,228		219,500		100	2,195	20	43,900	263,400	4.00	8,780.00	
Vinegar.....	271	240	1,920	16	128	15	42	630	2,550	4.92	73.80	
Yeast.....	375		375		25	15	5	75	450	.50	7.50	
Total.....			799,220					126,215	865,445		27,118.45	
			330					56.35	386.35			

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Pounds.	Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Gallons.	Pounds.		Gallons.	Pou s.						
FOR 6,000 MEN—continued.												
Raisins.....	pounds.	802		720		40	18	15	270	900	1.42	25.56
Salmon, tinned.....	do.	4,346		4,320		48	90	22	1,980	6,300	1.50	135.00
Spices.....	do.	183		180		26	6	20	1,260	270	1.17	7.02
Salt.....	do.	7,229		7,200		50	144	9	1,260	8,466	1.17	168.48
Sirup.....	gallons.	465		5,400	154	180	30	30	900	6,300	4.33	126.90
Sugar.....	pounds.	50,842		50,400		100	404	1	504	50,904	2.50	1,260.00
Sardines.....	do.	3,520		3,564		33	108	9	972	4,336	1.08	116.64
Sauerkraut.....	do.	4,080		4,140		115	36	25	900	5,040	4.00	144.00
Tea.....	do.	1,043		960		40	24	28	672	1,632	3.84	92.16
Tomatoes.....	do.	18,369		18,360		51	360	19	6,840	25,200	1.75	630.00
Tapioca.....	do.	849		960		40	24	10	240	1,200	.50	12.00
Vegetables, fresh.....	do.	283,074		283,400		100	2,634	20	52,680	316,080	4.00	10,536.00
Vinegar.....	gallons.	325		288	16	128	18	42	756	3,060	4.92	88.56
Yeast.....	pounds.	450		450		25	18	5	90	540	.50	9.00
Total.....	{pounds. long tons.		887,076	396					151,458	1,038,534		32,542.14
FOR 7,000 MEN												
Apples, dried.....	pounds.	1,932		2,100		50	42	16	672	2,772	2.08	87.36
Apricots.....	do.	6,246		6,251		47	183	16	2,128	8,379	1.33	176.89
Butter.....	do.	21,712		21,672		72	301	28	8,428	30,100	2.50	752.50
Bacon, tinned.....	do.	8,069		8,064		72	112	28	3,136	11,200	2.17	243.04
Beef, corned.....	do.	11,162		11,088		48	231	22	5,062	16,170	1.33	307.23
Beef, chipped.....	do.	1,239		1,512		72	21	35	756	2,247	2.91	61.11
Beans, string, tinned.....	do.	5,974		5,880		30	196	12	2,352	8,232	1.00	196.00
Beans, white, navy.....	gallons.	3,505		27,370	11	85	322	1	2,322	27,692	2.00	644.00
Beans, Lima, dried.....	do.	458		3,500		100	35	13	35	3,535	2.17	75.95
Beans, Lima, tinned.....	do.	2,815		2,821		31	91	13	1,183	4,004	1.00	91.00
Beans, kidney.....	pounds.	2,196		2,100		100	21	1	21	2,121	2.17	43.57
Barley.....	do.	464		700		100	7	1	7	2,121	2.83	19.81
Baking powder.....	do.	1,136		1,050		30	35	15	525	1,575	1.17	40.96
Baking soda.....	do.	168		282		36	28	4	28	2,800	.83	5.81
Corn meal.....	do.	2,715		2,800		100	28	1	28	2,828	2.41	67.46
Codfish, tinned.....	do.	2,163		2,016		48	42	22	924	2,940	1.50	63.00
Coffee.....	do.	16,172		16,100		60	322	18	5,796	21,896	2.92	940.24
Cocoa.....	do.	768		840		40	21	20	420	1,260	2.00	42.00
Corn, tinned.....	do.	8,738		8,680		31	260	13	3,640	12,320	1.00	280.00
Cornstarch.....	do.	1,314		1,400		40	35	10	350	1,750	1.25	43.75

Currents.....do.....	681	672	766	34	21	6	126	882	1.25	26.25
Catsup.....gallons.....	671		5,460	180	46	35	1,470	6,930	3.00	126.00
Cheese.....pounds.....	2,139		2,940	40	52	20	1,120	3,360	1.58	88.48
Crackers.....do.....	1,785		1,848	22	84	10	1,840	2,688	2.25	189.00
Extracts.....gallons.....	30	28	224	16	14	24	336	560	.50	7.00
Flour, wheat.....pounds.....	189,891		170,100	100	1,701	1	1,701	171,801	2.75	4,677.75
Hominy.....do.....	1,837		2,100	100	21	1	2,121	2,121	2.50	52.50
Hops.....do.....	190		350	7	7	17	119	469	2.33	16.31
Ham, smoked.....do.....	6,804		6,510	93	70	67	4,960	11,200	3.84	268.80
Ham, sugar cured.....do.....	7,508		7,812	93	84	67	5,628	13,440	3.84	322.56
Jams.....do.....	5,315		5,250	30	175	5	6,875	6,125	1.00	175.00
Lards.....do.....	12,999		12,890	40	322	20	6,440	19,320	1.42	457.40
Meat, refrigerated.....do.....	192,539		192,836	48	455	17	12,852	205,688	1.01	101.00
Milk, evaporated.....do.....	21,890		21,840	50	56	18	7,735	29,575	2.42	135.52
Macaroni.....do.....	2,644		2,800	25	7	20	1,008	3,808	2.42	135.52
Mustard.....do.....	2,000		175	25	7	20	140	315	1.33	9.31
Mince-meat.....do.....	2,063		2,100	50	42	10	420	2,520	2.00	84.00
Oil, salad.....gallons.....	227	224	1,792	64	28	16	448	2,240	1.50	42.00
Oats, rolled.....pounds.....	4,404		4,536	84	84	19	1,596	6,132	3.25	273.00
Peas, tinned.....do.....	9,306		7,261	314	294	124	3,675	12,936	1.00	294.00
Peas, split.....pounds.....	1,195	231	1,785	85	21	21	1,806	2,000	2.00	42.00
Prunes.....do.....	5,793		5,852	44	133	12	1,596	7,448	1.25	166.25
Peaches, tinned.....do.....	8,020		7,875	45	175	15	2,625	10,500	1.33	232.75
Peaches, dried.....do.....	1,056		2,000	50	21	14	1,344	1,344	1.58	31.18
Pickles.....do.....	2,397		2,394	57	42	48	2,016	4,410	2.75	115.50
Pepper.....do.....	2,339		2,360	25	14	19	296	616	1.25	17.50
Pumpkin, tinned.....do.....	2,350		2,394	38	63	17	1,071	3,465	1.30	81.90
Pears, tinned.....do.....	6,449		6,449	46	140	15	2,100	8,540	1.33	186.20
Rice.....do.....	6,893		7,000	100	70	1	70	7,070	2.08	145.60
Raisins.....do.....	7,846		7,846	40	21	15	315	1,155	1.42	29.82
Salmon, tinned.....do.....	5,071		5,040	48	105	22	2,310	7,350	1.50	157.50
Spices.....do.....	178		175	25	7	20	140	315	1.17	8.19
Salt.....do.....	8,446		8,440	50	168	9	1,512	9,912	1.17	196.56
Sirup.....gallons.....	58,535		6,800	180	35	30	1,950	7,350	4.33	131.55
Sugar.....pounds.....	58,733	5424	58,800	100	988	1	1,688	59,388	2.50	1,470.00
Sardines.....do.....	4,107		4,158	83	126	9	1,134	5,292	1.08	136.08
Sauerkraut.....do.....	4,760		4,830	115	42	25	1,050	5,880	3.84	168.00
Tea.....do.....	1,117		1,120	40	28	28	794	1,904	1.75	107.52
Tomatoes.....do.....	21,480		21,420	51	420	19	7,980	20,400	1.40	14.00
Tapioca.....do.....	21,480		21,420	40	28	10	61,460	368,700	4.00	12,262.00
Vegetables, fresh.....do.....	308,579		307,300	100	3,073	20	61,460	368,700	4.92	16,163.32
Vinegar.....gallons.....	2,688	336	2,688	128	21	43	882	3,570	4.92	16,163.32
Yeast.....pounds.....	535		525	25	21	5	105	680	.50	10.50
Total.....{long tons.	1,034,922		1,034,922	176,701	1,211,623		176,701	1,211,623		37,965.83
	463		463	78.89	540.88		78.89	540.88		

Cubic feet per long ton.

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Pounds.		Pounds.							
		Gallons.	Pounds.	Gallons.	Pounds.						
FOR 8,000 MEN.											
Apples, dried.....	pounds.										
Apricots.....	2,231		2,400		50	48	16	768	3,168	2.08	99.84
Butter.....	7,138		7,144		47	152	16	2,432	9,576	1.33	202.16
Bacon, tinned.....	24,814		24,768		72	128	28	9,632	34,400	2.50	860.00
Beef, canned.....	9,245		9,216		72	128	28	3,894	12,800	2.17	277.76
Beef, clipped.....	12,756		12,672		48	264	22	5,808	18,480	1.33	351.12
Beans, string, tinned.....	1,416		1,728		72	24	35	2,568	2,568	2.91	69.84
Beans, white, navy.....	6,828		6,720		30	224	12	2,688	9,408	1.00	224.00
Beans, Lima, dried.....	4,065	4,048	31,280	11	85	368	1	368	31,648	2.00	776.00
Beans, Lima, tinned.....	4,523	504	4,000		100	40	1	40	4,576	2.17	86.80
Beans, kidney.....	3,217		3,224		31	104	13	1,352	4,576	1.00	104.00
Barley.....	2,509		2,400		100	24	1	24	2,424	2.17	52.08
Baking powder.....	530		800		100	8	1	8	808	2.83	22.64
Baking soda.....	1,299		1,200		30	40	15	600	1,800	1.17	46.80
Corn meal.....	192		328		36	8	4	32	320	.83	6.64
Codfish, tinned.....	3,103		3,200		100	32	1	32	3,232	2.41	77.12
Coffee.....	2,472		2,304		48	48	22	1,056	3,360	1.50	72.00
Cocoa.....	18,482		18,480		50	368	18	6,624	25,104	2.92	1,074.56
Corn, tinned.....	912		960		40	24	20	480	1,440	2.00	48.00
Cornstarch.....	10,037		9,920		31	320	13	4,160	14,080	1.00	320.00
Currants.....	1,502		1,600		40	40	10	400	2,000	1.25	50.00
Catsup.....	778		864		36	24	6	144	1,008	1.25	30.00
Cheese.....	766	768	6,240	16	130	48	35	1,680	7,920	3.00	144.00
Crackers.....	2,444		2,560		40	64	20	1,280	3,840	1.58	101.12
Extracts.....	2,052		2,112		22	96	10	960	3,072	2.25	216.00
Flour, wheat.....	34	32	256	2	16	16	24	384	640	.50	8.00
Hominy.....	194,161		194,400		100	1,944	1	1,944	196,344	2.75	5,346.00
Hops.....	2,100		2,400		100	24	1	24	2,424	2.50	60.00
Ham, smoked.....	2,217		2,400		50	8	17	136	2,536	2.33	58.64
Ham, sugar-cured.....	7,776		7,440		92	80	67	5,360	12,800	3.84	307.20
Jams.....	8,580		8,928		92	96	67	6,432	15,360	3.84	307.64
Lards.....	6,075		6,000		30	200	5	7,000	7,000	1.00	200.00
Meat, refrigerated.....	14,868		14,720		40	368	20	7,360	22,080	1.42	522.56
Milk, evaporated.....	220,384		220,384		48	520	17	14,688	235,072	1.01	10,576.00
Macaroni.....	24,963		24,960		60	64	18	8,840	33,800	1.50	780.00
Mustard.....	3,021		3,200		25	8	20	1,600	2,200	2.42	154.88
Mince-meat.....	2,229		2,400		50	48	10	480	2,880	2.00	96.00

	256	269	256	2,048	8	64	32	16	512	2,560	1.50	48.00
Oil, salad.....	gallons	5,033	5,184	5,184	.....	54	96	16	1,824	7,392	3.26	312.00
Oats, rolled.....	pounds	10,635	10,635	10,635	.....	314	336	124	4,200	14,784	1.00	336.00
Peas, tinned.....	gallons	222	222	264	11	85	24	1	24	2,064	2.00	48.00
Peas, split.....	pounds	6,620	6,688	6,688	.....	44	152	12	1,824	8,512	1.25	190.00
Prunes.....	gallons	9,177	9,000	9,000	.....	45	200	15	3,000	12,000	1.33	264.00
Peaches, tinned.....	do.	1,207	1,200	1,200	.....	40	24	14	336	1,336	1.58	37.92
Peaches, dried.....	do.	2,739	2,736	2,736	.....	57	48	48	2,304	5,040	2.75	132.00
Pickles.....	do.	337	340	340	.....	25	19	19	304	704	1.25	20.00
Pepper.....	do.	2,688	2,736	2,736	.....	38	72	17	1,224	3,960	1.30	83.00
Pumpkin, tinned.....	do.	7,363	7,360	7,360	.....	46	160	15	2,400	9,760	1.33	212.80
Peas, tinned.....	do.	7,775	8,000	8,000	.....	100	80	11	2,400	9,080	2.08	166.40
Rice.....	do.	1,070	960	960	.....	48	24	15	360	1,200	1.42	84.00
Raisins.....	do.	6,780	5,760	5,760	.....	48	120	22	2,640	8,400	1.90	180.00
Salmon, tinned.....	do.	8	200	200	.....	25	8	9	1,728	3,800	1.17	9.88
Spices.....	do.	9,652	9,600	9,600	.....	180	192	20	1,200	8,400	4.33	173.20
Salt.....	do.	67,123	67,200	67,200	154	100	40	30	672	11,328	1.17	224.64
Sirup.....	gallons	4,694	4,752	4,752	.....	33	144	9	1,266	6,048	2.50	1,080.00
Sugar.....	do.	5,440	5,620	5,620	.....	115	48	26	1,200	6,720	1.06	155.52
Sardines.....	do.	1,391	1,280	1,280	.....	40	32	28	866	2,176	3.84	122.88
Sauerkraut.....	do.	24,492	24,480	24,480	.....	51	480	19	9,120	35,000	1.75	840.00
Tea.....	do.	1,132	1,280	1,280	.....	40	32	10	320	1,000	.50	16.00
Tomatoes.....	do.	350,765	351,200	351,200	.....	100	3,512	20	70,240	421,440	4.00	14,048.00
Tapioca.....	do.	384	384	384	.....	128	24	43	1,008	4,080	4.92	118.08
Vegetables, fresh.....	gallons	600	600	600	.....	25	24	5	1,120	4,720	.50	12.00
Vinegar.....	do.	1,182,768	1,182,768	1,182,768	.....	201,944	90.16	.....	1,394,712	618.16	.....	43,389.52
Yeast.....	pounds	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	{long tons	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FOR 9,000 MEN.

Apples, dried.....	pounds	2,510	2,700	2,700	.....	50	54	16	864	3,564	2.06	112.32
Apricots.....	do.	8,031	8,037	8,037	.....	47	171	16	2,736	10,773	1.33	227.43
Butter.....	do.	27,916	27,864	27,864	.....	72	387	28	10,836	38,700	2.50	967.50
Bacon, tinned.....	do.	10,400	10,368	10,368	.....	28	144	26	4,032	14,400	2.17	312.48
Beef, corned.....	do.	14,351	14,256	14,256	.....	48	297	35	6,584	20,166	1.33	396.01
Beef, chopped.....	do.	1,583	1,644	1,644	.....	72	27	22	945	2,889	2.91	78.57
Beans, string, tinned.....	do.	7,681	7,560	7,560	.....	30	252	12	3,024	10,584	1.00	252.00
Beans, white, navy.....	do.	4,506	4,554	4,554	.....	85	414	1	45	35,044	2.00	828.00
Beans, Lima, dried.....	gallons	589	4,500	4,500	11	100	45	1	1,521	4,545	2.17	97.65
Beans, Lima, tinned.....	do.	3,619	3,627	3,627	.....	31	117	13	5,777	5,777	1.00	117.00
Beans, kidney.....	pounds	2,823	2,700	2,700	.....	100	27	1	2,727	2,727	2.57	58.49
Barley.....	do.	1,461	1,350	1,350	.....	30	45	15	675	2,025	1.17	52.45
Baking powder.....	do.	1,461	1,350	1,350	.....	36	9	4	36	3,636	.83	7.47
Baking soda.....	do.	3,491	3,600	3,600	.....	100	36	4	1,188	3,780	2.41	86.76
Corn meal.....	do.	2,781	2,662	2,662	.....	48	64	22	7,452	28,152	1.50	81.00
Codfish, tinned.....	do.	20,792	20,700	20,700	.....	50	414	18	7,452	28,152	3.92	1,203.88
Coffee.....	do.	1,026	1,060	1,060	.....	40	27	20	1,620	1,620	2.00	64.00
Cocoa.....	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1 Cubic feet per long ton.

Information concerning 30 days' provision supply—Continued.

Article.	Provi- sions for 30 days.	Net full package weight.		Net weight per package.		Number of pack- ages.	Tare per package.	Total tare.	Total gross weight.	Cubic di- mensions per package (feet).	Total cubic dimensions (feet).
		Pounds.		Pounds.							
		Gallons.	Pounds.	Gallons.	Pounds.						
FOR 9,000 MEN—continued.											
Corn, tinned.	11,292		11,160		31	360	13	4,680	15,840	1.00	360.00
Cornstarch.	1,689		1,800		40	45	10	450	2,250	1.25	56.25
Currents	876		972		36	27	6	162	1,134	1.25	33.75
Catnap	862	864	7,020	16	130	54	35	1,860	8,910	3.00	162.00
Cheese	2,750		2,880		40	72	20	1,440	4,320	1.58	113.76
Crackers	2,308		2,376		22	108	10	1,060	3,456	2.25	243.00
Extracts	39	36	288	2	16	18	24	432	720	.50	9.00
Flour, wheat	218,431		218,700		100	2,187	1	2,187	220,887	2.75	6,014.25
Hominy	2,362		2,700		100	27	1	27	2,727	2.50	67.50
Hops	244		450		50	9	17	153	603	2.33	20.97
Ham, smoked	8,748		8,370		93	90	67	6,030	14,400	3.84	345.60
Ham, sugar cured	9,633		10,044		93	108	67	7,236	17,280	3.81	414.72
Jams	6,834		6,750		30	225	5	1,125	7,875	1.00	225.00
Lards	16,713		16,580		40	414	20	8,280	24,860	1.42	587.88
Meat, refrigerated	247,936		247,932		48	585	17	16,524	254,456	1.01	11,868.00
Milk, evaporated	28,106		28,080		50	72	18	9,945	38,025	1.50	877.50
Macaroni	3,369		3,600		25	9	20	1,296	4,886	2.42	174.24
Mustard	257		225		50	54	10	540	3,240	1.33	11.97
Mince-meat	2,652		2,700		50	54	10	540	3,240	2.00	108.00
Oil, salad	282	288	2,304	8	64	36	16	576	2,880	1.50	54.00
Oats, rolled	5,662		5,832		54	108	19	2,052	7,884	3.25	351.00
Peas, tinned	11,964		11,907		31½	378	12½	4,725	16,632	1.00	378.00
Peas, split	250	297	2,295	11	85	27	1	27	2,322	2.00	54.00
Prunes	7,448		7,524		44	171	12	2,052	9,576	1.25	213.75
Peaches, tinned	10,324		10,125		45	227	15	3,375	13,500	1.33	299.25
Peaches, dried	1,358		1,350		50	27	14	378	1,728	1.58	42.66
Pickles	3,078		3,078		57	54	48	2,592	5,670	2.75	148.50
Pepper	435		450		25	18	19	342	792	1.25	22.50
Pumpkin, tinned	3,022		3,078		38	81	17	1,377	4,455	1.30	105.30
Pears, tinned	8,317		8,280		46	180	15	2,700	10,980	1.33	239.40
Rice	8,747		9,000		100	90	1	90	9,090	2.08	187.20
Raisins	1,203		1,080		40	27	15	405	1,485	1.42	38.34
Salmon, tinned	6,520		6,480		48	135	22	2,970	9,450	1.50	202.50
Spices	229		225		25	9	20	180	6,405	1.17	10.83
Salt	10,860		10,800		50	216	9	1,944	12,744	1.17	252.72
Strap	714		8,100		180	45	30	1,350	9,450	4.25	194.65
Sugar	67½	697½	75,600	15½	100	756	1	756	76,356	2.50	1,890.00

Sardines.....	5,280	5,346	33	182	9	1,453	9,894	1.03	174.86
Sauerkraut.....	6,120	6,210	115	54	25	1,350	7,560	4.00	216.00
Tea.....	1,568	1,440	41	34	28	1,008	2,448	3.84	138.24
Tomatoes.....	27,553	27,540	51	540	19	10,280	37,800	1.75	945.00
Typioca.....	1,274	1,440	40	86	10	10,360	1,800	.80	18.00
Vegetables, fresh.....	394,611	385,100	100	3,951	20	79,020	474,120	4.00	15,804.00
Vinegar.....	487	3,456	128	27	42	1,134	4,590	4.92	132.84
Yeast.....	675	675	25	27	5	136	810	.60	13.50
Total.....		1,330,614				227,187	1,557,801		48,813.21
		594				101.43	686.43		

1 Cubic feet per long ton.

D.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., July 30, 1917.

To: Commanders in chief, division commanders, commanding officers, and commandants.

Subject: Supply ships; cargo list of N. S. A. stores.

1. The attached cargo list for supply ships represents the quantity of stock which should ordinarily be carried by these vessels when leaving supply yards in so far as storage facilities permit.

2. This stock is carried for the purpose of supplying vessels of the fleet which have been unable to secure ordinary stock replenishment from the supply yards within a reasonable time, and to meet emergencies which have resulted in excessive and unforeseen demands on the vessel's normal stock. Issues are not to be made on account of ordinary stock replenishment. All vessels are presumed to take on board from the supply yards the maximum amount of stock which may be carried, and replenishment of this stock should be secured from the supply yards in so far as may be practicable.

3. The column "On hand" will be used in submitting reports when required of the quantity actually available for issue, which information may be required from time to time by proper authority. In submitting these reports supply ships will note in the "Remarks" column the trade name of lubricating oils carried in stock.

4. The accompanying list has been prepared upon the recommendation of the various bureaus and the commander in chief of the Atlantic Fleet.

SAMUEL MCGOWAN.

Stock No.	Article.	Unit.	Glacier.	Culgoa.	Bridge.	Celtic.
<i>Class 6.</i>						
Anchor, ship, Navy type:						
6A43	1,300-pound.....	No.....	1	1	1	1
6A45	1,800-pound.....	No.....	1	1	1	1
<i>Class 7.</i>						
7G3	Gasoline, Navy standard, drum.....	Gal.....	2,000	3,180	6,200	2,000
<i>Class 10.</i>						
Bars, steamer, ward:						
10B40	G2, square.....	Set.....	6	6	6	6
10B34	Type W.....	Set.....	3	3	3	3
<i>Class 12.</i>						
Shackles, anchor, screw:						
12S86	2½-inch.....	No.....	12	18	24	18
12S63	2-inch.....	No.....	12	18	24	18
12S60	1½-inch.....	No.....	12	18	24	18
12S59	1-inch.....	No.....	12	18	24	18
<i>Class 13.</i>						
13C5	Compound, boiler, Navy Standard.....	Lb.....	500	1,000	2,000	2,000
13S9	Sponges, Loofta, fiber, dry.....	No.....	500	1,000	2,500	2,000
13W3	Waste, cotton, white.....	Lb.....	2,000	4,982	4,982	5,000
<i>Class 14.</i>						
14G21	Grease, lubricating, mineral, hard.....	Lb.....	100	200	300	200
14O42	Oil, air-compressor (torp.) cylinder.....	Gal.....	50	75	100	75
14O21	Oil, cylinder, superheat.....	Gal.....	50	75	100	75
Oil, engine (main), forced lubrication:						
14O69	Light.....	Gal.....	1,000	2,000	4,000	2,000
14O70	Medium.....	Gal.....	500	750	1,000	750
14O68	Heavy.....	Gal.....	1,000	2,000	4,000	2,000
14O72	Extra heavy.....	Gal.....	2,000	3,000	4,000	3,000
14O61	Oil, ice machine.....	Gal.....	700	1,000	1,200	1,000
14O1	Oil, castor.....	Gal.....	50	75	100	75
14O64	Oil, cylinder.....	Gal.....	500	750	1,000	750
14O71	Oil, engine (marine), mineral, straight..	Gal.....	500	750	1,000	750
14O	Oil, turret turning gear.....	Gal.....	100	150	200	150

Stock No.	Article.	Unit.	Glacier.	Culgoa.	Bridge.	Celtic.
<i>Class 14—Continued.</i>						
	Oil, sperm:					
14O34	Pure	Gal	50	100	100	100
14O55	Mineral	Gal	100	200	300	200
14O41	Oil, torpedo (hot running)	Gal	100	200	300	200
14O32	Oil, kerosene	Gal	500	750	1,000	750
14P2	Petrolatum	Lb.	750	1,000	1,500	1,000
14W1	Wax, illuminating	Lb.	300	400	500	400
<i>Class 15.</i>						
	Cable, intercommunication, rubber-insulated, plain:					
15C11	10-conductor	Ft.	500	750	1,000	750
15C71	18-conductor	Ft.	500	750	1,000	750
15C30	Cord, telephone, double-conductor, plain	Ft.	5,000	7,500	10,000	7,500
15W49	Wire, lighting and power, twin-conductor, plain, 4,000 c. m.	Ft.	2,500	3,750	5,000	3,750
	Wire, conductor, double:					
15W6	Plain	Ft.	10,000	15,000	20,000	15,000
15W303	Armored	Ft.	150	225	300	225
<i>Class 16.</i>						
16B18	Bulbs, ultraudion, Hudson, filament	No.	100	150	200	150
16C10	Carbons, arc, cathode:					
	15 kilowatt	No.	50	75	100	75
16C11	30 kilowatt	No.	50	75	100	75
16C43	Condensers, transmitting, Leyden jar	No.	40	60	80	60
16C32	Contacts, key, hand and relay, combined, 5 kilowatt	No.	10	15	20	15
	Detector-renewals, Wireless Specialty Apparatus Co.:					
16D9	Type IP155A	No.	10	15	20	15
16D10	Type IP176	No.	10	15	20	15
16D4	Diaphragms, head telephone	No.	8	12	20	12
16G2	Gaps, quenched, 5 kilowatt	No.	1	1	1	1
	Insulators, column, strain, electrose guy:					
16I27	18-inch	No.	10	15	20	15
16I25	7-inch	No.	20	30	40	30
	Keys, hand and relay:					
16K1	Combined, 5-kilowatt	No.	10	15	20	15
16K2	Main-transmitting, 5-kilowatt	No.	2	4	5	4
16P12	Plates, quenched-spark, air-cooled type, 5-kilowatt	No.	6	9	12	9
16P7	do.	No.	6	9	12	9
16T1	Telephones, head, Wireless Specialty Apparatus Co.	No.	8	10	12	10
<i>Class 17.</i>						
17B201	Batteries, storage, audion, 6-volt	No.	16	24	32	24
17B7	Bells, vibrating, water-tight, 3-inch	No.	10	15	20	15
17	Blinkers, portable, tube	No.	5	10	15	10
	Buzzers:					
17B63	Salvo-firing, portable, water-tight, 20-volt	No.	10	15	20	15
17B62	Water-tight, 20-volt	No.	10	15	20	15
17C210	Contact makers, portable, water-tight, with locking device	No.	8	12	16	12
	Carbons, searchlight, negative and positive:					
17C199	36-inch	Pr.	100	200	250	200
17C198	30-inch	Pr.	25	40	50	40
17C197	24-inch	Pr.	25	40	50	40
17C194	12 and 13 inch	Pr.	25	40	50	40
17C145	Cords, head-telephone	No.	10	20	30	20
	Fuses:					
17F113	Glass-tube, 4-ampere	No.	10,000	15,000	20,000	15,000
7F130	Inclosed, cart. type, renewable, ferule cont., without elements, 3-30	No.	100	150	200	150
7F132	Inclosed, cart. type, renewable, ferule cont., without elements, 35-60	No.	100	150	200	150
	Fuse elements, regular type, National Electrical Code standard:					
7F137	10-ampere	No.	1,000	1,500	2,000	1,500
7F179	15-ampere	No.	1,000	1,500	2,000	1,500
17F204	20-ampere	No.	1,000	1,500	2,000	1,500
17F139	30-ampere	No.	1,000	1,500	2,000	1,500
17F182	40-ampere	No.	1,000	1,500	2,000	1,500

Stock No.	Article.	Unit.	Glacier.	Culgoa.	Bridge.	Celtic.
<i>Class 17—Continued.</i>						
Fuse elements, regular type, National Electric Code standard—Continued.						
17F140	50-ampere	No.	1,000	1,500	2,000	1,500
17F141	60-ampere	No.	1,000	1,500	2,000	1,500
17F208	70-ampere	No.	1,000	1,500	2,000	1,500
17F209	80-ampere	No.	1,000	1,500	2,000	1,500
17F142	100-ampere	No.	750	1,125	1,500	1,125
17F186	150-ampere	No.	750	1,125	1,500	1,125
17F143	200-ampere	No.	100	150	200	150
17F216	250-ampere	No.	100	150	200	150
17F144	300-ampere	No.	100	150	200	150
17F219	350-ampere	No.	100	150	200	150
17F187	400-ampere	No.	100	150	200	150
17F222	500-ampere	No.	50	75	100	75
17F224	600-ampere	No.	50	75	100	75
Fuses, link, class A:						
17F106	10-ampere	No.	50	75	100	75
17F108	20-ampere	No.	50	75	100	75
17F110	30-ampere	No.	50	75	100	75
17F191	40-ampere	No.	50	75	100	75
17F192	50-ampere	No.	50	75	100	75
17F193	75-ampere	No.	50	75	100	75
17F194	100-ampere	No.	50	75	100	75
Fuses, link, class B:						
17F114	10-ampere	No.	50	75	100	75
17F115	20-ampere	No.	50	75	100	75
17F116	30-ampere	No.	50	75	100	75
17F195	40-ampere	No.	50	75	100	75
17F196	50-ampere	No.	50	75	100	75
17F119	100-ampere	No.	50	75	100	75
Fuses, link, class C:						
17F261	200-ampere	No.	12	18	24	18
17F262	300-ampere	No.	12	18	24	18
17F263	400-ampere	No.	12	18	24	18
17F264	500-ampere	No.	12	18	24	18
17L33	Lamps, electric, incandescent, carbon-filament, clear, standard, 50-watt, 125-volt.	No.	2,000	3,000	4,000	3,000
Lamps, electric, incandescent, Tungsten-filament, clear, standard:						
17L78	40-watt, 125-volt.	No.	500	750	1,000	750
17L56	25-watt, 125-volt.	No.	500	750	1,000	750
17L58	60-watt, 125-volt.	No.	200	375	500	375
Lamps, electric, incandescent, carbon-filament, special (miniature):						
17L32	8-candlepower, 125-volt, E6.	No.	500	750	1,000	750
17L130	2-candlepower, 125-volt, T7.	No.	500	750	1,000	750
17L13	5-candlepower, 125-volt, P11J.	No.	200	300	400	300
17L126	1-candlepower, 10-volt, sight.	No.	1,000	1,500	2,000	1,500
Tape, insulating:						
17T10	Rubber, 1/4-inch.	Lb.	25	50	75	50
17T7	Linen, plain, 1/4-inch.	Lb.	50	100	150	100
17T117	Telephone, fire control, CN.	No.	24	36	48	36
17T	Transformers, gun firing.	No.	1	1	1	1
<i>Class 19.</i>						
Blocks, chain, direct differential:						
19B637	1/2-ton	No.	2	3	4	3
19B638	1-ton	No.	2	3	4	3
19B640	2-ton	No.	2	3	4	3
19B	5-ton	No.	1	2	3	2
19B	10-ton	No.	1	2	3	2
<i>Class 21.</i>						
21H7	Hawsers, hemp (manila), plain laid, 10-inch.	No.	2	3	4	3
21H5	Hawsers, hemp (manila), plain laid, 8-inch.	No.	2	3	4	3
21H3	Hawsers, hemp (manila), plain laid, 6-inch.	No.	2	3	4	3
Oakum:						
21O1	Spun.	Lb.	50	75	100	75
21O2	Unspun.	Lb.	500	750	1,000	750
Rope, hemp (manila), plain laid:						
21R61	4-inch.	Lb.	1,000	1,200	1,600	1,200
21R51	1 1/2-inch.	Lb.	400	600	800	600
21R50	1 1/4-inch.	Lb.	400	600	800	600
21R49	1 1/8-inch.	Lb.	120	240	360	240
21R48	1 1/2-inch.	Lb.	120	240	360	240

Stock No.	Article.	Unit.	Glacier.	Culgoa.	Bridge.	Celtic.
<i>Class 22.</i>						
	Rope, wire, steel (crucible), galvanized, type B:					
22R20	$\frac{1}{4}$ inch diameter.....	Lb.....	250	375	500	375
22R26	$\frac{1}{2}$ inch diameter.....	Lb.....	900	1,350	1,800	1,350
22R19	$\frac{3}{4}$ inch diameter.....	Lb.....	140	210	280	210
22R21	$\frac{1}{2}$ inch diameter.....	Lb.....	340	510	680	510
22W157	Wire, antenna, No. 18.....	Ft.....	5,000	7,500	10,000	7,500
	Wire, fuse:					
22W190	3-ampere.....	Lb.....	10	15	20	15
22W191	5-ampere.....	Lb.....	10	15	20	15
22W161	10-ampere.....	Lb.....	10	15	20	15
22W162	15-ampere.....	Lb.....	10	15	20	15
22W163	20-ampere.....	Lb.....	10	15	20	15
22W165	30-ampere.....	Lb.....	10	15	20	15
22W192	40-ampere.....	Lb.....	10	15	20	15
22W166	50-ampere.....	Lb.....	10	15	20	15
22W319	60-ampere.....	Lb.....	10	15	20	15
22W321	75-ampere.....	Lb.....	10	15	20	15
22W323	90-ampere.....	Lb.....	10	15	20	15
22W324	100-ampere.....	Lb.....	10	15	20	15
<i>Class 23.</i>						
23B26	Buckets, deck and general purposes.....	No.....	250	375	500	375
	Extinguishers, fire, foam type, portable:					
23E5	3-gallon.....	No.....	24	36	48	36
23E1	1-quart.....	No.....	24	36	48	36
23M19	Mats, collision, without hogging lines, 12 by 12 feet.....	No.....	4	4	4	
23R2	Rockets, V. N. S.....	No.....	50	50	50	50
23R1	Rocket-staves, V. N. S.....	No.....	50	50	50	50
	Signals, V. N. S.:					
23S62	Blue.....	No.....	50	50	50	50
23S63	Green.....	No.....	200	200	200	200
23S64	Red.....	No.....	200	200	200	200
<i>Class 24.</i>						
	Canvas:					
24C14	Cotton, white, Raven's 8-ounce.....	Yd.....	500	750	1,000	750
24C29	Flax, No. 1.....	Yd.....	200	300	400	300
24C34	Cotton, slate color, 6-ounce.....	Yd.....	100	150	200	150
<i>Class 25.</i>						
	Bags:					
25B1	Clothes.....	No.....	200	300	400	300
25B6	Coaling, flax, 600-pound.....	No.....	24	36	48	36
25H1	Hammocks.....	No.....	200	300	400	300
<i>Class 27.</i>						
27N1	Netting, mosquito.....	Yd.....	400	600	800	600
27R2	Rags, cotton.....	Lb.....	500	750	1,000	750
<i>Class 30.</i>						
30P6	Paper, toilet.....	Roll.....	1,000	1,500	2,000	1,500
<i>Class 31.</i>						
	Candles, tallow:					
31C1	5's.....	Lb.....	500	750	1,000	750
31C2	6's.....	Lb.....	500	750	1,000	750
31L30	Lanterns, oil-burning, hand, globe.....	No.....	50	75	100	75
31L3	Lamps, wax-burning, bunker.....	No.....	25	50	75	50
31M2	Matches, safety, tin box.....	Pkg.....	200	300	400	300
31W5	Wicks, oil-burning, flat, $\frac{1}{4}$ -inch.....	No.....	200	300	400	300
<i>Class 32.</i>						
32B65	Bricks, fire, standard, $2\frac{1}{2}$ by $4\frac{1}{2}$ by 9 inches.....	No.....	1,000	2,000	3,000	2,000
	Cement:					
32C1	Asbestos, plaster.....	Lb.....	300	400	500	400
32C28	Fire.....	Lb.....	600	900	1,200	900
32C29	Clay, fire, air-floated.....	Lb.....	1,000	2,000	3,000	2,000

Stock No.	Article.	Unit.	Glacier.	Culgoa.	Bridge.	Celtic.
<i>Class 33.</i>						
	Packing, sheet, asbestos-fiber:					
33P4	$\frac{1}{4}$ -inch.....	Lb.....	200	300	400	300
33P5	$\frac{1}{2}$ -inch.....	Lb.....	100	200	300	200
33P112	Packing, sheet, H. P., gas engine, $\frac{1}{4}$ -inch.....	Lb.....	25	50	75	50
	Packing, sheet, rubber, W. I.:					
33P54	$\frac{1}{4}$ -inch.....	Lb.....	50	75	100	75
33P55	$\frac{1}{2}$ -inch.....	Lb.....	50	75	100	75
33P87	Packing, sheet, gas and oil joint, $\frac{1}{4}$ -inch.....	Sq. yd....	10	15	20	15
33P11	Packing, condenser tube.....	Lb.....	50	75	100	75
	Packing, sheet, rubber, C. I., low grade:					
33P115	$\frac{1}{4}$ -inch.....	Lb.....	50	75	100	75
33P117	$\frac{1}{2}$ -inch.....	Lb.....	100	150	200	150
3P119	$\frac{1}{4}$ -inch.....	Lb.....	50	75	100	75
	Packing, flax, square:					
33P12	$\frac{1}{4}$ -inch.....	Lb.....	20	30	40	30
33P13	$\frac{1}{2}$ -inch.....	Lb.....	20	30	40	30
33P14	$\frac{1}{4}$ -inch.....	Lb.....	20	30	40	30
33P15	$\frac{1}{2}$ -inch.....	Lb.....	20	30	40	30
33P16	$\frac{1}{4}$ -inch.....	Lb.....	20	30	40	30
33P18	$\frac{1}{2}$ -inch.....	Lb.....	20	30	40	30
33P20	$\frac{1}{4}$ -inch.....	Lb.....	20	30	40	30
	Packing, rope, asbestos:					
33P36	$\frac{1}{4}$ -inch.....	Lb.....	10	15	20	15
33P37	$\frac{1}{2}$ -inch.....	Lb.....	10	15	20	15
33P38	$\frac{1}{4}$ -inch.....	Lb.....	10	15	20	15
33P39	$\frac{1}{2}$ -inch.....	Lb.....	16	24	32	24
33P41	$\frac{1}{4}$ -inch.....	Lb.....	16	24	32	24
	Packing, spiral, steam:					
33P122	$\frac{1}{4}$ -inch.....	Lb.....	24	36	48	36
33P77	$\frac{1}{2}$ -inch.....	Lb.....	24	36	48	36
33P28	$\frac{1}{4}$ -inch.....	Lb.....	24	36	48	36
33P29	$\frac{1}{2}$ -inch.....	Lb.....	50	75	100	75
33P30	$\frac{1}{4}$ -inch.....	Lb.....	40	60	80	60
33P31	$\frac{1}{2}$ -inch.....	Lb.....	80	120	160	120
33P33	$\frac{1}{4}$ -inch.....	Lb.....	80	120	160	120
33P35	$\frac{1}{2}$ -inch.....	Lb.....	40	60	80	60
	Rubber, gasket, sheet:					
33R11	$\frac{1}{4}$ -inch.....	Lb.....	200	300	400	300
33R12	$\frac{1}{2}$ -inch.....	Lb.....	200	300	400	300
33R14	$\frac{1}{4}$ -inch.....	Lb.....	300	400	500	400
<i>Class 34.</i>						
34L4	Leather, hydraulic, oak-tanned, $\frac{1}{4}$ -inch.....	Butt.....	3	3	3	3
<i>Class 37.</i>						
37G	Gloves, asbestos.....	Pr.....	100	125	150	125
<i>Class 39.</i>						
	Fir, Douglas, rough commons:					
34F51	12 by 12 inches, 24 to 30 feet long.....	Pc.....			30	
39F25	3 by 12 inches, 24 to 30 feet long.....	Pc.....			30	
<i>Class 40.</i>						
40V8	Valve reseating outfits, $\frac{1}{4}$ to 12 inches.....	No.....	2	3	4	3
<i>Class 41.</i>						
	Blades, hacksaw, hand:					
41B57	10-inch.....	No.....	500	750	1,000	750
41B58	12-inch.....	No.....	500	750	1,000	750
41F121	Frames, hacksaw.....	No.....	24	36	48	36
41S14	Scrapers, machinist's.....	Set.....	8	12	16	12
41S108	Shovels, scoop.....	No.....	300	400	500	400
	Trowels:					
41T67	Cement.....	No.....	12	16	20	16
41T66	Brick.....	No.....	12	16	20	16
<i>Class 42.</i>						
42S441	Spikes, wire, steel, galvanized, chisel point, oval head, 8 inches.....	Lb.....	200	300	400	300

Stock No.	Article.	Unit.	Glacier.	Culgoa.	Bridge.	Celtic.
<i>Class 43.</i>						
	Bolts, standard, steel, class C, H. H.:					
43B128	by 2 inches	No.	300	600	900	600
43B130	by 2½ inches	No.	300	600	900	600
43B131	by 3 inches	No.	300	600	900	600
43B134	by 4 inches	No.	300	600	900	600
43B142	by 2 inches	No.	300	600	900	600
43B144	by 2½ inches	No.	300	400	500	400
43B146	by 3 inches	No.	200	300	400	300
43B149	by 4 inches	No.	200	300	400	300
43B157	by 2 inches	No.	200	300	400	300
43B159	by 2½ inches	No.	100	200	300	200
43B161	by 3 inches	No.	100	200	300	200
43B164	by 4 inches	No.	100	150	200	150
43B174	by 3 inches	No.	200	300	400	300
43B175	by 3½ inches	No.	200	300	400	300
43B176	by 4 inches	No.	100	200	300	200
43B178	by 5 inches	No.	100	200	300	200
43B180	by 3 inches	No.	100	200	300	200
43B182	by 4 inches	No.	100	200	300	200
43B281	by 5 inches	No.	100	200	300	200
<i>Class 46</i>						
46A3	Antifriction metal, ingot	Lb.	1,000	1,500	2,000	1,500
	Solder, half and half:					
46B775	Bar	Lb.	100	200	300	200
46B777	Wire	Lb.	100	150	200	150
<i>Class 51.</i>						
51A1	Acid, sulphuric, dilute (electrolyte)	Lb.	60	90	120	90
51C12	Calcium chloride	Lb.	400	600	800	600
51L4	Lye, concentrated	Lb.	500	750	1,000	750
51P6	Polish, metal, liquid	Pt	200	300	400	300
	Paper, litmus, strip:					
51P18	Blue	Bot	6	9	12	9
51P19	Red	Bot	6	9	12	9
51S26	Soap powder	Lb.	1,000	1,500	2,000	1,500
	Soap:					
51S8	Laundry, F. W.	Bar	500	750	1,000	750
51S40	Salt water	Bar	1,000	1,500	2,000	1,500
51S34	Soda carbonate, crystal	Lb.	500	750	1,000	750
51G2	Glycerine, C. P.	Gal.	50	75	100	75
<i>Class 52.</i>						
52A5	Alcohol	Gal	1,000	1,500	2,000	1,500
51L23	Pigment, dry, lead, red	Lb.	1,000	1,500	2,000	1,500
52O5	Oil, linseed, raw	Gal	200	300	400	300
	Paint, boot-topping:					
52P18	Red, formula No. 2.	Gal	100	150	200	150
52P2	Black, formula No. 3.	Gal	100	150	200	150
52P66	Slate color, No. 4.	Gal	100	150	200	150
	Paint, inside:					
52P48	White, formula No. 27.	Gal	200	300	400	300
52P75	Red lead, mixed	Gal	200	300	400	300
	Paint, outside:					
52P127	Light gray standard	Gal	300	400	500	400
52P41	Dark gray standard	Gal	300	400	500	400
52P56	Putty, whiting	Lb.	100	200	300	200
	Shellac, mixed:					
52S6	Red	Gal	200	300	400	300
52S7	Yellow	Gal	100	150	200	150
52T12	Turpentine	Gal	100	200	300	200
<i>Class 59.</i>						
59C4	Cement, Portland	Lb.	10,000	15,000	20,000	15,000
<i>Class 60.</i>						
60B31	Bars, grate, standard, double	No.	200	300	400	300

E.

(Substitute this for class 40, previously furnished, and destroy original.)

[Issued August, 1918.]

CLASS 40.—TOOLS, MACHINE, AND ALL ACCESSORIES, OUTFITS, AND PARTS.

DEFINITION.

"Machine tool: A machine carrying a tool, as a cutter or die or other shaping implement, or one of which the tool is a part, for performing any of various cutting or shaping processes in metal or wood working; opposed to hand tool."—Standard Dictionary.

NOTES.

1. *Philadelphia catalogue list*.—Attention is invited to the following Navy Department publication: "Catalogue of tools for the United States Navy manufactured at the navy yard, Philadelphia, Pa." In preparing requisitions for tools, the "Instructions for ordering tools," on page 3 of the above-named publication, should always be followed.

2. *Spare parts, pneumatic tool*, are not carried in stock at navy yards, but are covered by annual contracts. These contracts provide for the supplying of spare parts for all pneumatic tools of the contractor's manufacture, which were, at the beginning of the term of the contract, the property of the Government.

Spare parts procurable under annual contracts will be ordered by the supply officers of navy yards and stations concerned. After inspection and acceptance the delivery will be covered by public bills which will be forwarded to the supply officer, navy yard, New York. Orders shall not be placed for spare parts not priced in catalogues, i. e., items listed as "prices on application." Such spare parts shall be requisitioned.

"Such spare parts as may be required for Ingersoll-Rand chipping hammers and riveting hammers now the property of the department should be obtained under separate requisitions to be submitted by the respective yards requiring them." (End. Bu. C. & R., N. S. A. 137 Bu., Feb. 4, 1916.)






















Arbors (Carbon-steel, shell-reamer).

[Specifications: 41-R-5. Rababazbug.]

Carried in stock at—									Stock No.	Size (number).	Minimum stock, base number.	Cost, each.	Code word.
Boston.	Charlestown.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.	New York.					
5	5	30	10	10	5	10	.....	10	40-A-22	6	1	\$3.20	Rababazdus.
5	5	30	10	10	5	10	.....	10	40-A-23	7	1	3.40	Rababazguf.
5	5	30	10	10	5	10	.....	10	40-A-24	8	1	3.70	Rababazkas.
5	5	30	10	10	5	10	.....	10	40-A-25	9	1	4.50	Rababazmeg.
5	5	15	5	5	5	5	.....	5	40-A-26	10	1	4.90	Rababazpes.
2	2	6	2	2	2	2	.....	2	40-A-27	11	1	6.75	Rababazrel.
2	2	6	2	2	2	2	.....	2	40-A-28	12	1	8.75	Rababazster.
2	2	6	2	2	2	2	.....	2	40-A-29	13	1	10.75	Rababazvex.
2	2	6	2	2	2	2	.....	2	40-A-30	14	1	14.00	Rababazwuh.
2	2	6	2	2	2	2	.....	2	40-A-31	15	1	16.75	Rababazypap.

Augers (ship, machine shank, without screws).

[Specifications: 41-A-5 (all applicable requirements). Rabacab.]

Carried in stock at—								Stock No.	Diameter, inches.	Length of twist, inches.	Total length (approximate), inches.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.						
x		x		x	x	x		40-A-1		10	18	\$0.25	Rabadee.
x		x		x	x	x		40-A-2		10	18	.25	Rabafed.
x		x		x	x	x		40-A-3		10	18	.25	Rabagaf.
								40-A-4		10	18	.30	Rabahag.
		x		x	x	x		40-A-5		11	18	.30	Rabajah.
x		x		x	x	x		40-A-6		11	20	.40	Rabakaj.
				x	x	x		40-A-7		11	20	.40	Rabalak.
x				x	x	x		40-A-8		12	22	.50	Rabamal.
		x		x	x	x		40-A-19		12	22	.50	Rabanam.
x		x		x	x	x		40-A-10		12	22	.55	Rabapan.
		x		x	x	x		40-A-11		12	22	.60	Rabaqap.
x				x	x	x		40-A-12		12	22	.65	Rabaraq.
x		x		x	x	x		40-A-13		13	23	.70	Rabasar.
x		x		x	x	x		40-A-14		14	23	.80	Rabates.
				x	x	x		40-A-15		14	23	.80	Rabavat.
				x	x	x		40-A-16		14	24	.85	Rabawav.
x		x		x	x	x		40-A-17		14	24	.85	Rabaxaw.
		x		x	x	x		40-A-18		15	25	.90	Rabayax.
		x		x	x	x		40-A-19		15	25	.95	Rabasy.
		x		x	x	x		40-A-20		15	27	1.00	Rabebez.
				x	x	x		40-A-21		15	27	1.25	Rabeceb.

Blades (hacksaw, machine).

[Specifications: 41-S-8. Rabedec.]

TYPE C, ALL HARD.

Carried in stock at—								Stock No.	Length, inches.	Number of teeth per inch (regular).	Minimum stock, base number.	Cost each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.						
30	20	50	50	50	20	50		40-B-22	12	14	10	\$0.04	Rabefed.
12	8	20	20	360	8	20		40-B-23	14	14	10	.075	Rabefef.
6	4	10	10	10	4	10		40-B-24	17	14	10	.16	Rabeheg.

TYPE D, SOFT BACK.

[Rabehegnin.]

12	8	20	20	20	8	20		40-B-25	12	14	10	\$0.04	Rabejeh.
12	8	20	20	60	8	20		40-B-28	14	14	10	.075	Rabekej.

Bufs (muslin, unbleached, stitched, plain centers).

[Specifications: First class in material and workmanship. Bidders are required to submit with the proposals samples of muslin from which the bufs are made. Rabelek.]

Carried in stock at—								Stock No.	Diameter of hole, inch.	Diameter (outside), inches.	Thickness (pieces).	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.						
.....	40-B-32	8	12	20	\$0.20	Rabelektag.
.....	40-B-33	8	12	40	.20	Rabelektot.
.....	40-B-28	10	18	18	.20	Rabamel.
.....	40-B-30	12	18	18	.20	Rabemem.
.....	40-B-20	12	20	20	.20	Rabepen.
.....	40-B-21	12	40	40	.35	Rabeqep.
.....	40-B-31	14	18	18	.35	Rabereq.

Chisel blanks (pneumatic).

[Specifications: 40-B-4. Rabereqtag.]

CALKING.

Carried in stock at—								Stock No.	Minimum stock base, number.	Cost, each.	Code word.	
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.					
15	10	25	25	25	10	25	25	40-C-127	100	\$0.20	Rabereqtot.

CHIPPING.

[Rabeserqtag.]

30	20	50	50	50	20	50	50	40-C-128	100	\$0.20	Rabesertot.
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SCALING.

[Rabeteqtag.]

30	20	50	50	50	20	50	50	40-C-129	100	\$0.20	Rabetetot.
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Chisels (pneumatic).

CALKING, MACHINED, OCTAGON BODY, ROUND SHANK.

[Specifications: Navy yard, New York, hull division plan No. 54188. Rabevet.]

Carried in stock at								Stock No.	Body.		Shank.		Code word.		
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.		New York.	Diameter, inch.	Length, inches.	Diameter, inch.		Length, inches.	
										Diameter, inch.	Length, inches.	Diameter, inch.		Length, inches.	
.....	M	40-C-15	4	5 1/2	0.58	1 1/2	\$0.34	Rabewer.

Chisels (pneumatic)—Continued.

CAPE, MACHINED, HEXAGON SHANK, OCTAGON BODY.

[Rabexew.]

Carried in stock at—								Stock No.	Body.		Shank.		Cost each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.		Diameter, inch.	Length, inches.	Diameter, inch.	Length, inches.		
.....	x	.....	.....	.....	.....	40-C-17	$\frac{1}{2}$	3 $\frac{1}{2}$	0.58	1 $\frac{1}{2}$	\$0.40	Rabexew.

DIAMOND POINT, MACHINED, HEXAGON SHANK, OCTAGON BODY.

[Rabidib.]

.....	x	40-C-19	$\frac{1}{2}$	3 $\frac{1}{2}$	0.58	1 $\frac{1}{2}$	\$0.35	Rabidib.
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HOT, MACHINED, OCTAGON BODY, ROUND SHANK.

[Rabidid.]

.....	x	40-C-20	$\frac{1}{2}$	3 $\frac{1}{2}$	0.58	1 $\frac{1}{2}$	\$0.35	Rabidid.
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ROUND-NOSE, MACHINED, HEXAGON SHANK, OCTAGON BODY.

[Rabidig.]

.....	x	40-C-21	$\frac{1}{2}$	3 $\frac{1}{2}$	0.58	1 $\frac{1}{2}$	\$0.40	Rabidig.
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SCALING, MACHINED, ROUND SHANK, SQUARE BODY.

[Rabidin.]

.....	x	40-C-24	$\frac{1}{4}$	6 $\frac{1}{2}$	0.495	1 $\frac{1}{2}$	\$0.25	Rabidin.
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SIDE-CUTTING, MACHINED, HEXAGON SHANK, OCTAGON BODY.

[Rabiriq.]

.....	x	40-C-25	$\frac{1}{2}$	3 $\frac{1}{2}$	0.58	1 $\frac{1}{2}$	\$0.30	Rabiriq.
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Chucks (drill, three-jaw).

[Specifications: 41-C-19. Rabitiw.]

Carried in stock at—								Stock No.	Capacity, inch.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	New York.				
x	x	x	.....	x	.....	40-C-27	0	\$3.50	Rabiwiv.
x	x	x	.....	x	.....	40-C-28	$\frac{1}{2}$	4.00	Rabitiw.
.....	x	x	.....	x	.....	40-C-29	$\frac{1}{2}$	5.00	Rabiyix.

Countersinks (carbon steel).

[Specifications: 41-C-18. Rablyixnin.]

BACK.

Carried in stock at—								Stock No.	Countersink, number.	Angle, degrees.	Minimum stock base, number.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.						
.....	10	.....	10	.....	40-C-91	1	37	5	\$4.45	Rabiziyin.
.....	10	.....	10	.....	40-C-92	2	45	5	3.25	Raboboznin.
.....	5	.....	5	.....	40-C-93	3	60	5	1.95	Rabocobnin.

MORSE TAPER SHANK.

[Rabodocnin.]

6	4	10	10	10	4	10	.....	10	40-C-80	1	15	10	\$4.50	Rabofodnin.
12	8	20	20	20	8	20	.....	20	40-C-81	2	37	10	4.00	Rabogofnin.
12	8	20	20	20	8	20	.....	20	40-C-82	3	45	10	3.25	Rabobognin.
12	8	20	20	20	8	20	.....	20	40-C-83	4	60	10	2.40	Rabojohnin.
6	4	10	10	10	4	10	.....	10	40-C-84	5	70	10	1.95	Rabokojnin.
6	4	10	10	10	4	10	.....	10	40-C-85	6	70	10	2.45	Rabokoknin.
6	4	10	10	10	4	10	.....	10	40-C-86	7	70	10	3.00	Rabomoknin.
6	4	10	10	10	4	10	.....	10	40-C-87	8	82	10	1.95	Rabomocnin.
6	4	10	10	10	4	10	.....	10	40-C-88	9	82	10	1.75	Rabopocnin.

STRAIGHT SHANK.

[Raboqocnin.]

5	4	10	10	10	4	10	.....	10	40-C-89	1	70	12	\$0.40	Raborocnin.
5	4	10	10	10	4	10	.....	10	40-C-90	2	82	12	.40	Rabosocnin.

HIGH-SPEED, MORSE TAPER SHANK.

[Specifications: 41-C-17. Rabotosnin.]

3	2	15	5	5	2	5	.....	5	40-C-75	1	15	5	\$21.00	Rabovotnin.
4	4	30	10	10	4	10	.....	10	40-C-76	2	37	5	16.00	Rabowovnin.
6	4	30	10	10	4	10	.....	10	40-C-77	3	37	5	16.25	Rabozownin.
6	4	30	10	10	4	10	.....	10	40-C-78	4	45	5	9.25	Raboyoxnin.
6	4	30	10	10	4	10	.....	10	40-C-100	5	45	5	9.50	Rabosoynin.
6	4	30	10	10	4	10	.....	10	40-C-79	6	60	5	4.75	Rabubuznin.

Countersinks and drills, combined (carbon steel).

[Specifications: 41-C-18. Rabucubnin.]

STRAIGHT SHANK, DOUBLE POINT.

Carried in stock at—								Stock No.	Countersink and drill number.	Diameter of drill, inch.	Diameter of body, inch.	Minimum stock base number.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.							
30	20	50	50	50	20	50	.....	40-C-94	1	1/4	1/4	12	\$0.15	Rabuducnin.
30	20	50	50	50	20	50	.....	40-C-95	2	1/4	1/4	12	.20	Rabufudnin.
30	20	50	50	50	20	50	.....	40-C-96	3	1/4	1/4	12	.35	Rabugufnin.

MORSE TAPER SHANK.

[Rabuhugnin.]

3	2	5	5	5	2	5	.....	5	40-C-97	1	1/4	1/4	20	\$0.60	Rabuhugnin.
3	2	5	5	5	2	5	.....	5	40-C-98	2	1/4	1/4	20	.60	Rabukujnin.
3	2	5	5	5	2	5	.....	5	40-C-99	3	1/4	1/4	20	.60	Rabuluknin.

Cutters (engraving machine, "George Gorton Machine Co.).

[Specifications: First-class in material and workmanship. Rabupun.]

Carried in stock at—								New York.	Stock No.	Machine size No.	Machine serial No.	Cutter number.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.							
.....	x	40-C-56	1-A	2722	1	\$0.38	Rabupun.
.....	x	40-C-57	1-A	2722	2	.38	Raburuq.
.....	x	40-C-58	1-A	2722	3	.38	Rabusur.

Dies.

RIVETING, PAN HEAD.

[Specifications: Drawing No. 47435. Rabutus.]

Carried in stock at—								New York.	Stock Number.	Size, inches.	Cost, each.	Code word
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.					
.....	x	40-D-55	1	\$0.85	Rabuvut.
.....	x	40-D-56	1	.95	Rabuwuv.
.....	x	40-D-57	1	1.45	Rabuxuw.

RIVETING MACHINE (HYDRAULIC), BUTTON HEAD.

[Specifications: Drawing No. 54187. Rabuyux.]

.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-58	1	\$0.70	Rabuyux.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-59	1	.85	Racabab.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-60	1	.90	Racacac.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-61	1	.95	Racacad.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-62	1	1.00	Racafaf.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-63	1½	1.05	Racagag.

PLUGGING-IN.

[Racahah.]

.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-64	1	\$0.75	Racajah.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-65	1	.75	Racakah.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-66	1	.75	Racalah.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-67	1	.85	Racaman.

SHALLOW.

[Racanan.]

.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-68	1	\$0.75	Racapap.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-69	1	.80	Racapaq.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-70	1	.80	Racarar.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-71	1	.85	Racasas.
.....	.....	.....	.....	.....	.....	.....	.....	x	40-D-72	1	.85	Racatat.

Standard.

[Specifications: 40-P-1. Racavav.]

HIGH.

Carried in stock at—								Stock No.	Size (diameter), inches.	Minimum stock base number.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.					
15	10	25	25	25	10	25	.....	25	40-D-74	1	\$3.00	Racaxax.
15	10	25	25	25	10	25	.....	25	40-D-75	1	3.00	Racayay.
15	10	25	25	25	10	25	.....	25	40-D-590	1	3.00	Racayayfw.
15	10	25	25	25	10	25	.....	25	40-D-591	1	3.00	Racayaynem.
15	10	25	25	25	10	25	.....	25	40-D-592	1	2.00	Racayaywed.
15	10	25	25	25	10	25	.....	25	40-D-593	1	3.00	Racazsdiq.
7	5	12	12	12	5	12	.....	12	40-D-594	1	3.00	Racazsazkow.
7	5	12	12	12	5	12	.....	12	40-D-595	1	3.00	Racazsazquc.
7	5	12	12	12	5	12	.....	12	40-D-596	1	3.00	Racazsaztek.

LOW.

[Racebeb.]

45	30	75	75	75	30	75	.....	75	40-D-79	1	\$0.45	Racelef.
45	30	75	75	75	30	75	.....	75	40-D-80	1	.45	Racegeg.
45	30	75	75	75	30	75	.....	75	40-D-597	1	.45	Racehehmin.
75	50	125	125	125	50	125	.....	125	40-D-82	1	.40	Racelej.
75	50	125	125	125	50	125	.....	125	40-D-83	1	.40	Racekek.
75	50	125	125	125	50	125	.....	125	40-D-84	1	.40	Racelel.
45	30	75	75	75	30	75	.....	75	40-D-85	1	.40	Racemem.
30	20	50	50	50	20	50	.....	50	40-D-86	1	.40	Racenem.
15	10	25	25	25	10	25	.....	25	40-D-598	1	.40	Racenin.

Dogs (lathe, single screw, United States standard).

Specifications: First class in material and workmanship. Drop-forged. Material: Steel, tool. Racepep. BENT-TAIL.

Carried in stock at—								Stock No.	Size, inches.	Cost each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.				
x	x	x	.....	.....	.....	40-D-87	1	\$0.20	Raceqeq.
x	x	x	.....	.....	.....	40-D-88	1	.25	Racerer.
x	x	x	.....	.....	.....	40-D-89	1	.30	Raceses.
x	x	x	.....	.....	.....	40-D-90	1	.40	Racetet.
x	x	x	.....	.....	.....	40-D-91	1	.40	Racevev.
x	x	x	.....	.....	.....	40-D-92	1	.40	Racewew.
.....	x	x	.....	.....	x	40-D-93	1	.40	Racexex.
.....	x	x	.....	.....	x	40-D-94	1	.50	Raceyey.
.....	x	x	.....	.....	x	40-D-95	2	.65	Racesex.

STRAIGHT-TAIL.

[Racibib.]

.....	.....	x	x	.....	.....	40-D-96	1	\$0.20	Raciele.
.....	.....	x	x	.....	.....	40-D-97	1	.25	Racidid.
.....	.....	x	x	.....	.....	40-D-98	1	.40	Racifif.
.....	.....	x	x	.....	.....	40-D-99	1	.40	Racifig.
.....	.....	x	x	.....	.....	40-D-100	1 1/2	.40	Racihih.
.....	.....	x	x	.....	.....	40-D-101	1 1/2	.50	Racitij.
.....	.....	x	x	.....	.....	40-D-102	1 1/2	.50	Racikik.
.....	.....	x	x	.....	.....	40-D-103	2	.60	Racilil.
.....	.....	x	x	.....	.....	40-D-104	2 1/2	.70	Racimim.
.....	.....	x	x	.....	.....	40-D-105	2 1/2	.75	Racinin.
.....	.....	x	x	.....	.....	40-D-106	2	1.00	Racipip.

Drifts (drill, or center keys, plain).

[Specifications: First class in material and workmanship. Material: Steel, drop-forged, finished and polished. Raciqiq.]

Carried in stock at—								Stock No.	Number socket on which used.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.				
.....	x	.....	.....	.....	40-D-107	1	\$0.105	Racirir.
.....	x	.....	.....	.....	40-D-108	2	.125	Racis.
.....	x	.....	.....	.....	40-D-109	3	.14	Racitit.
.....	x	.....	.....	.....	40-D-110	4	.17	Raciviv.

Drill presses (electrically operated, 2½-inch).

[Specifications: 40-T-4. Use: On shipboard. Raciyimin.]

Carried in stock at—								Stock No.	Size of drill (maximum), inches.	Spindles.	Voltage.	Minimum stock, base number.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.							
4	2	2	2	.....	.....	.....	40-D-609	2	1	110 D. C...	1	\$1,600	Racododnin.

Drills (electric),

[Specifications: 40-T-3. Racopop.]

PORTABLE.

Carried in stock at—								Stock No.	Size of drill, inch.	Number of speeds.	Voltage.	Minimum stock base number.	Cost each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.							
50	50	30	100	.....	.....	.....	40-D-122	1	2	120	1	\$40	Racoqoq.
20	20	8	10	40-D-608	1	2	120	1	50	Racoqobid.

PORTABLE, RADIAL.

[Racoqoq bug.]

10	10	8	10	20	40-D-610	1½	{ 120 D.C. }	1	\$65	Racoqoq bug.
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Pneumatic.

[Specifications: 40-T-2 and C. & R. numbers listed below. Racoqoqbug.]

CLOSE-QUARTER (CORNER).

Carried in stock at—								Stock No.	Size (inches).	C. and R. No.	Minimum stock base No.	Cost each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.						
15 9	10 6	25 15	25 15	25 15	10 6	25 15	..... .....	25 15	40-D-111 40-D-589	1½ 3	100 101	1 1	Racoqoqbug. Racoqoqbug.

NONREVERSIBLE.

[Racoqoqguf.]

36 150 75 75 36 6 3	24 100 50 50 24 4 2	60 250 125 125 60 10 5	60 250 125 125 60 10 5	60 250 125 125 60 10 5	24 100 50 50 24 4 2	60 250 125 125 60 10 5	60 250 125 125 60 10 5	40-D-116 40-D-117 40-D-113 40-D-114 40-D-115 40-D-585 40-D-586	1½ 2 1½ 2 2 3 (1)	89 90 91 92 93 94 95	1 1 1 1 1 1 1	\$35.00 37.50 45.00 50.00 60.00 85.00 90.00	Rocoqoqhul. Rocoqoqjur. Rocoqoqkux. Rocoqoqlud. Rocoqoqmuk. Rocoqoqnuq. Rocoqoqpww.
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13 and up (compound).

REVERSIBLE.

[Rocoqoqruf.]

6 6 3 3	4 4 2 2	10 10 5 5	10 10 5 5	10 10 5 5	4 4 2 2	10 10 5 5	10 10 5 5	40-D-119 40-D-121 40-D-587 40-D-588	1½ 2 3 (1)	96 97 98 97	1 1 1 1	\$50.00 55.00 85.00 90.00	Rocoqoqsup. Rocoqoqtuv. Rocoqoqvub. Rocoqoqwuk.
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13 and up (compound).

Drills (twist, carbon steel).

[Specifications: 41-D-1. Note: The word "Single" appearing in this class in captions under "Drills" has reference to the unit of quantity and not to the construction of the drills. Racoror.]

UNITED STATES NAVY STANDARD SETS.

Carried in stock at—								Stock No.	Specifications refer- ence set, number.	Range of diam- eters in sets, inches.	Minimum stock base sets.	Cost, per set.	Code word.	
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.							New York.
3	2	15	5	5	2	5	.....	5	40-D-123	1	1½ to 1 by 32ds. and 1½ to 1 by 16ths.	10	\$12.50	Racosos.
3	2	15	5	5	2	5	.....	5	40-D-124	2	1 to 1½ by 16ths. and 1½ to 2 by 8ths.	10	9.00	Racotot.

Straight shank (fractional sizes).[Racotothag.]
SETS.

Carried in stock at—								Stock No.	Range of diam- eter in sets, inch.	Minimum stock, base sets.	Cost, per set.	Code word.	
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.						New York.
3	2	15	5	5	2	5	.....	5	40-D-604	$\frac{1}{4}$ to $\frac{1}{2}$, inclusive by 64ths.	10	\$10	Racotottot

SINGLE.

[Racovov.]

Carried in stock at—								Stock No.	Diameter (inches).	Minimum stock base No.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.					
36	24	180	60	60	24	60	.....	60	40-D-128	10	\$0.02	Racozoz.
36	24	180	60	60	24	60	.....	60	40-D-129	10	.03	Racubub.
36	24	180	60	60	36	60	.....	60	40-D-130	10	.08	Racucuc.
36	24	180	60	60	24	60	.....	60	40-D-131	10	.03	Racudud.
90	60	450	150	150	90	150	.....	150	40-D-132	10	.03	Racufuf.
36	24	180	60	60	24	60	.....	60	40-D-133	10	.04	Racugug.
126	84	630	210	210	126	210	.....	210	40-D-134	10	.04	Racuhuh.
36	24	180	60	60	24	60	.....	60	40-D-135	10	.05	Racujuj.
216	144	108	360	360	144	360	.....	360	40-D-136	10	.05	Racukuk.
108	72	540	180	180	108	180	.....	180	40-D-137	10	.06	Raculul.
198	132	990	330	330	132	330	.....	330	40-D-138	10	.06	Racumum.
36	24	180	60	60	24	60	.....	60	40-D-139	10	.06	Racunun.
144	96	720	240	240	96	240	.....	240	40-D-140	10	.07	Racupup.
36	24	180	60	60	36	60	.....	60	40-D-141	10	.07	Racuquq.
144	96	720	240	240	144	240	.....	240	40-D-142	10	.07	Racurur.
36	24	180	60	60	24	60	.....	60	40-D-143	10	.07	Racusus.
144	96	720	240	240	96	240	.....	240	40-D-144	10	.08	Racutut.
36	24	180	60	60	24	60	.....	60	40-D-145	10	.08	Racuvuv.
54	36	270	90	90	54	90	.....	90	40-D-146	10	.08	Racuwuw.
36	24	180	60	60	24	60	.....	60	40-D-147	10	.08	Racuxux.
54	36	270	90	90	54	90	.....	90	40-D-148	10	.09	Racuyuy.
18	12	90	30	30	12	30	.....	30	40-D-149	10	.10	Racuzuz.
90	60	45	150	150	90	150	.....	150	40-D-150	10	.10	Radabac.
18	12	90	30	30	12	30	.....	30	40-D-151	10	.10	Radacad.
54	48	360	120	120	48	120	.....	120	40-D-152	10	.11	Radadaf.
18	12	90	30	30	12	30	.....	30	40-D-153	10	.12	Radafag.
36	24	180	60	60	24	60	.....	60	40-D-154	10	.12	Radagah.
18	12	90	30	30	12	30	.....	30	40-D-155	10	.13	Radajah.
54	36	270	90	90	36	90	.....	90	40-D-156	10	.13	Radajak.

Drills—Wire-gauge sizes.

SETS.

[Radiwiv.]

Carried in stock at—								Stock No.	Range of diameters in set.		Minimum stock base sets.	Cost per set.	Code word.	
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.		Wire gauge number.	Decimal equivalent inches.				
3	2	15	5	5	2	5	5	40-D-208	1-60	0.0400-0.2280	10	\$2.00	Radiwix

Drills—Wire-gauge sizes—Continued.

SINGLE.

[Radixiy.]

Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.	New York.	Stock No.	Diameter.			Cost, each.	Code word.
										Wire gauge number.	Decimal equivalent inches.	Minimum stock base number.		
36	24	180	60	60	24	60	.....	60	40-D-210	1	.2280	10	\$0.05	Radixiy.
36	24	180	60	60	24	60	.....	60	40-D-211	2	.2210	10	.05	Radixib.
36	24	180	60	60	24	60	.....	60	40-D-212	3	.2130	10	.05	Rodoboc.
36	24	180	60	60	24	60	.....	60	40-D-213	4	.2060	10	.05	Radocod.
36	24	180	60	60	24	60	.....	60	40-D-214	5	.2055	10	.04	Radodof.
36	24	180	60	60	24	60	.....	60	40-D-215	6	.2040	10	.04	Radofog.
36	24	180	60	60	24	60	.....	60	40-D-216	7	.2010	10	.04	Radogoh.
36	24	180	60	60	24	60	.....	60	40-D-217	8	.1990	10	.04	Radoboj.
36	24	180	60	60	24	60	.....	60	40-D-218	9	.1960	10	.035	Radojok.
36	24	180	60	60	24	60	.....	60	40-D-219	10	.1935	10	.035	Radokol.
36	24	180	60	60	24	60	.....	60	40-D-220	11	.1910	10	.035	Radolom.
36	24	180	60	60	24	60	.....	60	40-D-221	12	.1890	10	.035	Radomon.
36	24	180	60	60	24	60	.....	60	40-D-222	13	.1850	10	.035	Radomon.
36	24	180	60	60	24	60	.....	60	40-D-223	14	.1820	10	.035	Radopoq.
36	24	180	60	60	24	60	.....	60	40-D-224	15	.1800	10	.035	Radoqor.
36	24	180	60	60	24	60	.....	60	40-D-225	16	.1770	10	.035	Radoroc.
36	24	180	60	60	24	60	.....	60	40-D-226	17	.1730	10	.035	Radocot.
36	24	180	60	60	24	60	.....	60	40-D-227	18	.1695	10	.035	Radotov.
36	24	180	60	60	24	60	.....	60	40-D-228	19	.1660	10	.035	Radovow.
36	24	180	60	60	24	60	.....	60	40-D-229	20	.1610	10	.035	Radowox.
36	24	180	60	60	24	60	.....	60	40-D-230	21	.1590	10	.035	Radoxoy.
36	24	180	60	60	24	60	.....	60	40-D-231	22	.1570	10	.035	Radoyox.
36	24	180	60	60	24	60	.....	60	40-D-232	23	.1540	10	.035	Radoaab.
36	24	180	60	60	24	60	.....	60	40-D-233	24	.1530	10	.03	Radubuc.
36	24	180	60	60	24	60	.....	60	40-D-234	25	.1495	10	.03	Raduad.
36	24	180	60	60	24	60	.....	60	40-D-235	26	.1470	10	.03	Raduduf.
36	24	180	60	60	28	60	.....	60	40-D-236	27	.1440	10	.03	Radufug.
36	24	180	60	60	30	60	.....	60	40-D-237	28	.1405	10	.03	Raduguh.
36	24	180	60	60	24	60	.....	60	40-D-238	29	.1360	10	.03	Raduhuj.
36	24	180	60	60	30	60	.....	60	40-D-239	30	.1285	10	.03	Radujuk.
36	24	180	60	60	48	60	.....	60	40-D-240	31	.1200	10	.025	Radukul.
36	24	180	60	60	72	60	.....	60	40-D-241	32	.1160	10	.025	Radulum.
36	24	180	60	60	24	60	.....	60	40-D-242	33	.1130	10	.025	Radumun.
36	24	180	60	60	24	60	.....	60	40-D-243	34	.1110	10	.025	Radunup.
36	24	180	60	60	24	60	.....	60	40-D-244	35	.1100	10	.025	Radupuq.
36	24	180	60	60	24	60	.....	60	40-D-245	36	.1065	10	.025	Raduqur.
36	24	180	60	60	24	60	.....	60	40-D-246	37	.1040	10	.025	Radurus.
36	24	180	60	60	24	60	.....	60	40-D-247	38	.1015	10	.025	Radusut.
36	24	180	60	60	24	60	.....	60	40-D-248	39	.0995	10	.02	Radutuv.
36	24	180	60	60	24	60	.....	60	40-D-249	40	.0980	10	.02	Raduvuv.
36	24	180	60	60	24	60	.....	60	40-D-250	41	.0960	10	.02	Raduwx.
36	24	180	60	60	36	60	.....	60	40-D-251	42	.0935	10	.02	Raduxuy.
36	24	180	60	60	24	60	.....	60	40-D-252	43	.0890	10	.02	Raduyus.
36	24	180	60	60	24	60	.....	60	40-D-253	44	.0860	10	.02	Radusub.
36	24	180	60	60	24	60	.....	60	40-D-254	45	.0820	10	.02	Rafabed.
36	24	180	60	60	24	60	.....	60	40-D-255	46	.0810	10	.02	Rafafac.
36	24	180	60	60	48	60	.....	60	40-D-256	47	.0785	10	.02	Rafadag.
36	24	180	60	60	36	60	.....	60	40-D-257	48	.0760	10	.015	Rafafah.
36	24	180	60	60	24	60	.....	60	40-D-258	49	.0730	10	.015	Rafagaj.
36	24	180	60	60	24	60	.....	60	40-D-259	50	.0700	10	.015	Rafahak.
36	24	180	60	60	24	60	.....	60	40-D-260	51	.0670	10	.015	Rafajal.
36	24	180	60	60	24	60	.....	60	40-D-261	52	.0635	10	.015	Rafakam.
36	24	180	60	60	24	60	.....	60	40-D-262	53	.0595	10	.015	Rafalan.
36	24	190	60	60	24	60	.....	60	40-D-263	54	.0550	10	.015	Rafamap.
36	24	180	60	60	24	60	.....	60	40-D-264	55	.0520	10	.015	Rafanaq.
36	24	180	60	60	24	60	.....	60	40-D-265	56	.0465	10	.015	Rafapar.
36	24	180	60	60	24	60	.....	60	40-D-266	57	.0430	10	.015	Rafasas.
36	24	180	60	60	24	60	.....	60	40-D-267	58	.0420	10	.015	Rafarat.
36	24	180	60	60	24	60	.....	60	40-D-268	59	.0410	10	.015	Rafassy.
36	24	180	60	60	24	60	.....	60	40-D-269	60	.0400	10	.015	Rafataw.

Taper shank (Morse).

SETS.

[Rafavax.]

Carried in stock at—								Stock No.	Range of diameters in sets inches.	Cost per set.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.				
.....	***	***	***	***	40-D-270	to 1 1/2 by 32nds.	\$1.50	Rafavax.
.....	40-D-271	to 1 1/2 by 64ths.	5.00	Rafavax.
.....	40-D-272	to 1 1/2 by 32nds.	2.50	Rafavax.
.....	40-D-273	to 1 by 32nds.	8.00	Rafavax.

SINGLE.

[Rafabed.]

Carried in stock at—								Stock No.	Diameter, inches.	Cost, each.	Code word.
Boston.	Charleston.	Philadelphia.	Mare Island.	Norfolk.	Portsmouth.	Puget Sound.	Washington.				
25	64	60	20	20	15	20	.....	40-D-231	.....	\$0.09	Rafelen.
15	48	30	10	10	22	10	.....	40-D-233	.....	.10	Rafelen.
43	120	216	72	72	29	72	.....	40-D-235	.....	.10	Rafelques.
24	60	120	40	40	16	40	.....	40-D-236	.....	.12	Rafelret.
144	160	720	240	240	96	240	240	40-D-237	.....	.12	Rafesev.
12	12	60	20	20	8	20	20	40-D-238	.....	.12	Rafetew.
156	104	780	260	260	104	260	260	40-D-239	.....	.15	Rafevex.
48	48	240	80	80	32	80	80	40-D-290	.....	.15	Rafewey.
240	160	120	400	400	160	400	400	40-D-291	.....	.15	Rafexes.
12	24	60	20	20	8	20	20	40-D-292	.....	.15	Rafeyeb.
168	112	840	280	280	112	280	280	40-D-293	.....	.15	Rafezec.
24	32	120	40	40	16	40	40	40-D-294	.....	.15	Rafibid.
108	72	540	180	180	72	180	180	40-D-295	.....	.16	Raficif.
16	40	78	28	28	10	28	28	40-D-296	.....	.17	Rafidig.
60	50	300	100	100	40	100	100	40-D-297	.....	.17	Rafidh.
12	24	60	20	20	8	20	20	40-D-298	.....	.18	Rafidij.
120	80	600	200	200	80	200	200	40-D-299	.....	.20	Rafidk.
15	10	72	24	24	10	24	24	40-D-300	.....	.20	Rafidj.
144	96	720	240	240	96	240	240	40-D-301	.....	.20	Rafidk.
12	20	60	20	20	8	20	20	40-D-302	.....	.20	Rafidm.
24	16	120	40	40	10	40	40	40-D-303	.....	.20	Rafidm.
12	8	60	20	20	8	20	20	40-D-304	.....	.20	Rafidm.
72	48	360	120	120	48	120	120	40-D-305	.....	.20	Rafidm.
5	5	24	8	8	5	8	8	40-D-306	.....	.22	Rafidm.
36	24	180	60	60	24	60	60	40-D-307	.....	.22	Rafidm.
5	5	18	6	6	5	6	6	40-D-308	.....	.22	Rafidm.
144	96	720	240	240	96	240	240	40-D-309	.....	.25	Rafidm.
5	5	18	6	6	5	6	6	40-D-310	.....	.25	Rafidm.
18	12	90	30	30	12	30	30	40-D-311	.....	.25	Rafidm.
7	5	36	12	12	5	12	12	40-D-312	.....	.25	Rafidm.
60	40	300	100	100	40	100	100	40-D-313	.....	.30	Rafidm.
5	5	24	8	8	5	8	8	40-D-314	.....	.30	Rafidm.

F.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., June 1, 1916.

To: Commanders in chief, commanding officers, and commandants.

Subject: Fitting out the fleet—clothing and small stores.

1. The attached tables show the quantities of clothing and small stores required for 100,000 men for six months summer and six months winter after they have been originally outfitted. They do not and were not intended to show the articles and quantities of uniform and clothing necessary to fit out new recruits.

2. While the tables were originally compiled for the purpose of showing what articles and the quantities of each it would be necessary to place on cargo ships to keep the fleet and its train supplied whenever it should be mobilized and required to keep the sea for an indefinite time, they will also be a useful guide to supply officers of individual ships when fitting out for sea. Commandants will likewise find the tables of service in estimating the clothing and small stores required to fit out the fleet units basing on the yards under their command.

3. When the tables are used by individual ships or by those who wish to obtain an estimate for 1,000 men or less the ciphers in light type in each item quantity should be ignored, the remaining figures in bold type showing the quantities for 1,000 men. The entire item quantity need be used only when figuring on supply-ship cargoes, or under other circumstances where 100,000 men are concerned.

4. When using these tables for loading supply ships the following instructions will be adhered to: If, by reason of a shifting zone of operations, both summer and winter clothing is to be loaded on supply ships, the small quantities of winter items shown in the summer list will be omitted, these negligible quantities of winter clothing being included in the summer list only when it is not proposed to take cargo quantities of winter clothing. For example: When the summer list and the winter list, as shown in the tables are to be loaded, but one item of woolen blankets will be taken, i. e., the winter quantity of 13,800 blankets—the 2,600 blankets shown in the summer list being ignored. If the summer list only is to be taken the 2,600 blankets will be loaded and the 13,800 blankets will not. In other words, no item will be duplicated and one quantity only will be taken, either the summer quantity or the winter quantity; but not both.

SAMUEL MCGOWAN.

Clothing and small-stores list—six months' supply for 100,000 men, summer and winter.

Articles.	Clothing and small stores for 100,000 men 6 months summer.	Full package quantity.	Number of packages.	Cubic feet per package.	Total cubic space required.	Clothing for 100,000 men 6 months winter.	Number of packages.	Total cubic space required.
Bathing trunks.....pairs	18,600	100	186	1.20	223			
Blankets, woolen.....each	2,600	20	130	4.8	624	13,800	600	3,312
Braid, watchmark.....yards	102,200	144	710	.10	71			
Brooms, whisk.....each	5,100	50	102	1.00	102			
Brushes:								
Hair.....do	5,000	72	70	1.50	105			
Scrub, fiber.....do	31,400	50	628	1.08	678			
Buttons:								
Bone, white.....dozen	15,300	144	106	.08	9			
Eag's, small.....do	600	12	50	.01	1			
Eag's, medium.....do	1,500	12	125	.05	6			
Rubber, small.....do	14,000	60	233	.03	7			
Rubber, medium.....do	1,200	60	20	.04	1			
Rubber, large.....do	400	24	17	.10	2			
Ivory, C. & S.....do	500				2			
Cap covers, P. O.....each	5,200	50	104	.40	42			
Cap ribbons.....do	74,600	100	746	.05	37			
Caps:								
Cloth.....do	12,800	10	1,280	2.00	2,560			
P. O. blue.....do	1,000	1	1,000	.27	270	2,600	2,600	702
P. O. white.....do	2,700	1	1,000	.18	180			
C. & S. blue.....do	200	1	200	.18	36	600	600	108
C. & S. white.....do	400	1	400	.18	72			
Watch.....do	5,500	100	55	1.50	82	36,000	360	540
Cloth, blue.....yards	5,000	72	70	4.42	310	10,000	148	654
Clothes stops.....each	68,600	200	343	1.00	343			
Combs.....do	21,000	144	146	.25	37			
Cotton, white.....spools	29,000	240	121	.50	61			
Cravats.....each	2,100	12	175	.05	9			
Devices:								
Lyre, band.....do	3,200				1			
P. O. cap.....do	1,600				2			

Clothing and small-stores list—six months' supply for 100,000 men, summer and winter—Continued.

Articles.	Clothing and small stores for 100,000 men 6 months summer.	Full pack-age quantity.	Number of pack-ages.	Cubic feet per pack-age.	Total cubic space re-quired.	Clothing for 100,000 men 6 months winter.	Number of pack-ages.	Total cubic space re-quired.
Drawers:								
Heavy.....pairs..	1,100	50	22	1.75	39	29,400	588	1,029
Nainsook.....do..	352,100	200	1,760	2.60	4,576			
Drill, bleached.....yards..	78,500	183	430	2.58	1,110			
Flannel, heavy.....do..	8,200	93	88	5.00	440	13,800	148	740
Gloves, woolen.....pairs..	8,600	150	58	1.50	67	85,800	572	858
Grommets.....each..	6,400	100	64	.08	6			
Handkerchiefs.....do..	305,500	900	340	2.00	680			
Hats, white.....do..	119,800	20	5,990	.66	3,954			
Jackets, mess attendants.....do..	1,700	25		1.33	97			
Jackknives.....do..	33,000	120	275	.25	69			
Jerseys.....do..	3,200	50	64	3.40	218	50,000	2,000	6,800
Jumpers:								
Dungaree.....do..	22,800	50	456	2.33	1,063			
White, dress.....do..	13,400	50	268	2.33	625			
Bleached, undressed.....do..	46,600	50	932	2.33	2,172			
Legs:								
Trouser, silk.....do..	3,600	50	72		1			
Cotton.....rolls..	6,500	24	271	.03	8			
Leggins.....pairs..	11,500	50	230	4.00	920			
Mattresses.....each..	1,200	5	240	11.25	2,700			
Mattress covers.....do..	21,100	50	422	2.33	983			
Marks:								
Apprentice.....each..	2,600	34,000						
Gun captains.....do..	4,000							
Gun pointers.....do..	7,600							
Hospital apprentice.....do..	2,200							
Seamen gunners.....do..	3,000							
Signal men.....do..	2,300							
Gunner's mate.....do..	1,600							
Expert riflemen.....do..	2,000							
Electrician.....do..	2,500							
Buglers.....do..	1,200							
Officers, C. & S.....do..	1,900							
Musicians.....do..	2,400							
Shipwrights.....do..	700							
Neckerchiefs.....do..	44,300	100	443	.92	408			
Needles.....papers..	5,000				2			
Overhirts.....each..	15,500	50	310	3.25	1,008	44,600	892	2,899
Overcoats.....do..	800	10	80	3.00	240	13,200	1,320	3,960
Rating badges: ¹								
Blue.....do..	19,800		198	.14	28			
White.....do..	32,000		320	.12	38			
Serge, blue.....yards..	15,400	150	103	4.50	464	25,800	172	774
Service stripes.....each..	35,600				16			
Shirts, blue flannel.....do..	4,700	50	94	3.25	306	20,200	404	1,313
Shoes:								
High.....pairs..	79,300	25	3,172	7.50	23,790	116,200	4,648	34,860
Low.....do..	36,500	25	1,460	7.50	10,950			
Gymnasium.....do..	3,900	24	162	3.40	551			
Silk, sewing.....spools..	13,500	240	56	.33	19			
Soap, salt-water.....bars..	96,500	25	3,860	1.75	6,755			
Socks:								
Cotton.....pairs..	584,300	600	974	3.66	3,565			
Woolen.....do..	1,400	200	7	2.00	14	42,800	214	428
Tape, linen.....pieces..	18,000	250	72	.14	10			
Thread, linen, black.....spools..	4,900	144	34	.67	23			
Towels.....each..	125,600	100	1,256	5.60	7,033			
Trousers:								
Dungaree.....pairs..	39,100	50	782	2.33	1,822			
Blue.....do..	15,900	50	318	2.85	907	38,600	772	2,200
White.....do..	73,000	50	1,460	2.33	3,402			
Undershirts:								
Heavy.....each..	1,500	50	30	1.75	53	29,400	588	1,029
Cotton.....do..	413,500	200	2,067	2.50	5,168			
Total					92,187			62,206

¹ Owing to the variable demand for badges of the different ratings, it has not been practicable to establish a definite percentage of issues for each rate; but as a guide for ships in making individual requisitions, the quantity should be based on allowing two badges for each man of every rating prescribed for the ship's complement entitled to wear a badge.

Summary of supply ships.

Cubic feet occupied by:

Six months' summer clothing and small stores-----	92, 187
Six months' winter clothing-----	62, 206
	<u>154, 393</u>

Articles that will not be carried if a cargo of both summer and winter clothing is loaded (winter articles in summer list)----- 28, 868

Cargo of summer clothing and small stores and winter clothing----- 125, 525

Usual quantities in which various sizes of clothing are required.

[The figures shown opposite the sizes of the various articles are the quantities of the individual sizes as they come in bales of "regulars," with the exception of caps, the quantities of the various sizes for which are based on lots of 100, as they do not (except cloth caps) come in other than packages of one.]

Bathing trunks:	Number.
32-----	25
36-----	50
40-----	25
Total-----	<u>100</u>

Cap covers, P. O.:	
6½-----	2
6¾-----	8
6⅞-----	7
7-----	9
7½-----	9
7¾-----	11
7⅞-----	4
7⅞-----	4
7⅞-----	1
Total-----	<u>50</u>

Caps, cloth:	
6½-----	2
6¾-----	2
6⅞-----	6
6⅞-----	25
7-----	28
7½-----	24
7½-----	7
7½-----	2
7½-----	3
7½-----	1
Total-----	<u>100</u>

Caps, blue, P. O.:	
6½-----	1
6¾-----	3
6⅞-----	7
6⅞-----	20
7-----	24
7½-----	20
7½-----	15
7½-----	5
7½-----	4
7½-----	1
Total-----	<u>100</u>

Caps, white, P. O.:	Number.
6½-----	1
6¾-----	3
6⅞-----	7
6⅞-----	20
7-----	24
7½-----	20
7½-----	15
7½-----	5
7½-----	4
7½-----	1
Total-----	<u>100</u>

Caps, blue, C. & S.:	
6½-----	1
6¾-----	3
6⅞-----	7
6⅞-----	20
7-----	24
7½-----	20
7½-----	15
7½-----	5
7½-----	4
7½-----	1
Total-----	<u>100</u>

Caps, white, C. & S.:	
6½-----	1
6¾-----	3
6⅞-----	7
6⅞-----	20
7-----	24
7½-----	20
7½-----	15
7½-----	5
7½-----	4
7½-----	1
Total-----	<u>100</u>

Drawers, heavy:	
30-----	10
32-----	12
34-----	12
36-----	8
38-----	5
40-----	3
Total-----	<u>50</u>

Usual quantities in which various sizes of clothing are required—Continued.

Drawers, nainsook:	Number.	Jumpers, white, undress—Con.	Number.
30	40	46	5
32	50	48	3
34½	50		
37	30	Total	50
39	20		
41	10	Leggins:	
Total	200	1	7
		2	11
Hats, white:		3	17
6½	1	4	10
6½	1	5	5
6½	1	Total	50
6½	4		
7	6	Overcoats:	
7½	3	34	1
7½	1	36	2
7½	1	38	2
7½	1	40	2
7½	1	42	2
7½	1	44	1
Total	20	Total	10
Jumpers, dungaree:		Overshirts:	
38	2	38	3
39	6	39	7
40	14	40	12
42	15	42	10
44	10	44	10
46	2	46	5
48	1	48	3
Total	50	Total	50
Jerseys:		Shirts, blue flannel:	
32	5	38	3
34	5	40	8
36	15	42	12
38	12	44	12
40	7	46	10
42	3	48	5
44	3	Total	50
Total	50		
		Shoes, high:	
Jumpers, white dress:		5	1
38	3	5½	1
39	7	6	3
40	12	6½	3
42	10	7	5
44	10	7½	4
46	5	8	2
48	3	8½	1
Total	50	9	1
		9½	1
Jumpers, white, undress:		10	1
38	3	10½	1
39	7	11	1
40	12	Total	25
42	10		
44	10		

Usual quantities in which various sizes of clothing are required—Continued.

Shoes, low:	Number.	Trousers, white:	Number.
5	1	1	1
5½	1	2	1
6	3	3	2
6½	3	4	1
7	5	5	3
7½	4	6	1
8	2	7	5
8½	1	8	7
9	1	9	1
9½	1	10	9
10	1	11	7
10½	1	12	7
11	1	13	5
Total	25	Total	50
Shoes, gymnasium:		Trousers, blue:	
6	8	1	1
7	10	2	1
8	4	3	2
9	1	4	1
10	1	5	3
Total	24	6	1
Socks, cotton:		7	5
9½	48	8	7
10	144	9	1
10½	264	10	9
11	96	11	7
11½	48	12	7
Total	600	13	5
Trousers, dungaree:		Total	50
1	1	Undershirts, heavy:	
2	1	32	5
3	2	34	7
4	1	36	13
5	3	38	13
6	1	40	7
7	5	42	3
8	7	44	2
9	1	Total	50
10	9	Undershirts, cotton:	
11	7	30	4
12	7	32	60
13	5	34	50
Total	50	36	40
		38	24
		40	14
		42	4
		44	4
		Total	200

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., November 24, 1916.

To: Commanders in chief, commanding officers and commandants.
Subject: Provisions for destroyers—45 days for 90 men.

1. The following table showing the quantities of all articles of provisions necessary to adequately subsist 90 men for 45 days has been compiled in the Atlantic torpedo flotilla under the direction of the flotilla commander and is printed for the information and guidance of all concerned.

2. When it becomes necessary, in time of stress or otherwise, for destroyers to be independent of the usual sources of supply for the maximum time possible, they will, when fitting out with provisions in anticipation of such duty, follow as closely as practicable the quantities of the various items given in this table.

3. The table contains some slight variations from the figures as originally submitted on account of the necessity for issuing unbroken packages; so that, while a decrease in the quantities of some items and an increase in others has resulted, it will be found that in general the quantities are more than sufficient for the complement of the average destroyer for the period stated.

SAMUEL MCGOWAN.

Provisions for destroyers—45 days for 90 men.

Articles.	Net full package weight.	Net weight per package.	Number of packages.	Total gross weight, including tare.	Total cubic dimensions.
	Pounds.	Pounds.		Pounds.	Feet.
Apples, drv.....	100	50	2	128	3.66
Apricots, tinned.....	141	47	3	195	4.08
Bread, fresh.....	400			400	13.50
Butter (all tinned).....	720	80	9	960	23.67
Barley.....	100	100	1	101	2.42
Baking powder.....	30	30	1	42	1.17
Baking soda.....	36	36	1	43	.61
Bacon, tinned.....	288	72	4	412	10.68
Bacon, smoked.....	150			150	3.50
Beef, chipped, tinned.....	144	72	2	196	4.84
Beef, corned, tinned.....	720	48	15	1,050	20.00
Beef, corned, fresh.....	60			60	2.00
Beans, Lima, drv.....	100	100	1	101	2.08
Beans, Lima, tinned.....	62	31	2	88	2.00
Beans, navy.....	510	85	6	516	12.00
Beans, string.....	90	30	3	129	3.00
Beets, tinned.....	82	41	2	108	2.34
Corn, tinned.....	261	29	9	378	9.09
Coffee.....	450	50	9	594	25.56
Cocoa.....	40	40	1	60	1.75
Cornmeal.....	200	100	2	202	6.16
Crackers.....	66	22	3	96	6.75
Codfish.....	144	48	3	201	4.50
Catsup.....	288	48	6	408	7.98
Cornstarch.....	40	40	1	51	1.33
Cheese.....	90	30	3	120	3.00
Eggs (180 dozen).....	270	45	6	360	13.98
Extract vanilla powder (6 boxes).....	6	1	1		
Extract lemon (1 bottle).....			1	15	.60
Flour.....	2,000	100	20	2,020	46.60
Fruits, fresh.....	350			350	10.00
Ham, sugar cured.....	220			220	7.00
Ham, smoked, in barrels.....	465	63	5	775	19.15
Hardtack (biscuit).....	300	50	6	426	19.02
Hominy.....	100	100	1	101	3.33
Hops.....	25	25	1	42	1.08
Jams.....	120	60	2	150	2.67
Lard.....	280	40	7	378	7.56
Mustard.....	24	24	1	40	1.08
Mackerel, salt.....	200	200	2	290	5.66
Macaroni.....	50	50	1	67	1.67
Milk, evaporated.....	672	48	14	896	18.66
Oil, salad.....	64	64	1	80	1.50
Oats, rolled.....	108	54	2	144	5.66
Pickles.....	57	57	1	104	2.50
Pepper.....	24	24	1	40	1.08
Peas, split.....	300	100	3	303	8.25
Pork, salt, barrels.....	100	100	1	200	4.33
Peas, tinned.....	240	30	8	352	8.00
Peaches, tinned.....	225	45	5	325	6.80
Peaches, dry.....	50	50	1	65	1.58
Pears, tinned.....	230	46	5	315	7.50
Prunes.....	128	42	3	168	3.75
Raisins.....	40	40	1	51	1.25
Rice.....	100	100	1	101	2.83
Sugar.....	1,300	100	13	1,313	30.29
Shoulders.....	60			60	2.50
Salmon, tinned.....	432	48	9	630	13.50
Sardines, tinned.....	125	25	5	210	5.40
Sausage, Vienna.....	96	48	2	128	3.00
Salt.....	300	100	3	303	5.25
Spices.....	24	24	1	40	1.08

Provisions for destroyers—45 days for 90 men—Continued.

Articles.	Net full package weight.	Net weight per package.	Number of packages.	Total gross weight, including tare.	Total cubic dimen- sions.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Feet.</i>
Sirup.....	180	180	1	220	4.00
Tomatoes.....	510	51	10	690	16.70
Tes.....	40	40	1	71	4.08
Tapioca.....	42	42	1	51	1.17
Vinegar.....	128	128	1	162	4.00
Worcestershire sauce.....	40	40	1	60	1.50
Yeast.....	25	25	1	30	.50
Meats, refrigerated:					
Beef.....	300			300	10.00
Bologna.....	24			31	1.50
Chicken.....	90			110	3.00
Frankfurters.....	40			50	3.00
Hamburger.....	40			50	3.00
Liver.....	40			50	3.00
Luncheon meat.....	24			31	1.50
Mutton.....	60			60	2.00
Pork loins.....	140			158	4.00
Sausage, pork.....	40			50	3.00
Turkey.....	90			110	4.00
Veal.....	60			60	2.00
Vegetables:					
Onions.....	300	100	3	360	12.00
Potatoes.....	1,900	100	19	2,280	76.00
Cabbage and miscellaneous.....	360			360	14.00
Total.....				23,225	680.93

H.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., October 30, 1919.

To: All commanders in chief, submarine division commanders, submarine division supply officers, and commanding officers of submarines.

Subject: Provisions for submarines.

Reference: Submarine provision list, dated August 1, 1917.

1. These provision lists have been compiled with the assistance of a plans committee of submarine officers and are published as a guide to commanding officers of submarines and supply officers of submarine divisions when laying in provisions for an extended cruise from base of supplies.

2. No attempt is made to form a standard menu for short cruises when fresh provisions can be provided, as these may vary with the seasons and local markets and are influenced by the circumstances of service, commissary equipment, and skill of personnel of the submarine. Five days may be the longest period that fresh provisions requiring refrigeration can be depended upon. For longer periods of operation and for small submarines with limited equipment and storage for fresh provisions, a standard menu is established. This menu is designed for a five-day period and consists of provisions other than fresh, which will keep indefinitely and are easily prepared; for a longer period the cycle is to be repeated. The menus are laid down for hot and cold climates, meat being served three times a day in cold weather but in warm weather only for supper, which is the most extensive meal of the day. The unit is the quantity required for one man for one meal.

3. In order that the quantities of food may be adequate and uniform and that the ration may be balanced, commissary officers will adhere to this standard menu and supply officers of submarine tenders will be responsible for maintaining sufficient stock to permit of issues in the proportions given. Substitution will not be made except when impossible to secure articles listed.

4. The supply officer of the division will check officers' accounts for meals furnished to them from the general mess. Each meal will be charged for at one-third of the daily ration allowance for submarine cruising away from bases or tenders. A list of the officers so checked, showing the number of days or fractional part of a day subsisted and the amount checked, will be forwarded with the quarterly provision return.

SAMUEL MCGOWAN.

Type menus—five-day cycle.

Meal.	First day.	Second day.	Third day.	Fourth day.	Fifth day.	Pounds per man, hot climates.	Pounds per man, cold climates.	Remarks.
Breakfasts.	Figs.....	Raspberries.....	Cherries.....	Figs, preserved.....	Blackberries.....	Ounce, 4	Ounce, 4	No meat in hot weather.
	Bacon.....	Potted ham.....	Creamed chip beef.....	Salmon croquettes.....	Corned beef hash.....	4	4	
	Corn meal mush.....	Hot cakes.....	Fried grits.....	Oatmeal.....	Hot cakes.....	1		
	Sirup.....	Sirup.....	Sirup.....	Butter.....	Sirup.....	1		
	Butter.....	Butter.....	Butter.....	Butter.....	Butter.....	2		
	Apple jelly.....	Orange marmalade.....	Grape jelly.....	Strawberry jam.....	Peach jam.....	2		
	Corn biscuits.....	Crackers.....	Soda biscuits.....	Crackers.....	Crackers.....	2		
	Coffee.....	Coffee.....	Coffee.....	Coffee.....	Coffee.....	4	4	
	Salmon croquettes.....	Boned chicken.....	Potted ham.....	Sardines.....	Chipped beef.....	2		
	Hominy.....	Boiled field peas.....	Catsup and spaghetti.....	Hominy.....	Kidney beans.....	6		
Dinners.	Peas.....	Corn.....	Lima beans.....	Spinach.....	Cauliflower.....	6	6	No meat in hot weather. Coffee may be substituted for tea in cold weather.
	Tomatoes.....	Beets.....	Tomatoes.....	Peas.....	String beans.....	6	6	
	Apple jelly.....	Orange marmalade.....	Grape jelly.....	Strawberry jam.....	Peach jam.....	1	1	
	Crackers.....	Crackers.....	Crackers.....	Crackers.....	Crackers.....	4	4	
	Peas.....	Peas.....	Peaches.....	Apricots.....	Pineapple.....	4	8	
	Tea.....	Tea.....	Tea.....	Tea.....	Tea.....	2	2	
	Chicken soup.....	Tomato soup.....	Pea soup.....	Ox tail soup.....	Clam chowder.....	2	2	
	Roast beef.....	Ox tongue.....	Roast beef.....	Boned chicken.....	Corned beef.....	8	8	
	Corn.....	Peas.....	Lima beans.....	Tomatoes.....	String beans.....	4	4	
	Candied sweet potato.....	Asparagus tips.....	Beets.....	Cauliflower.....	Spinach.....	4	4	
Suppers.	Corn bread.....	Biscuits.....	Corn bread.....	Crackers.....	Crackers.....	3	3	The most extensive meal of the day.
	Butter.....	Butter.....	Butter.....	Butter.....	Butter.....	2	2	
	Peas.....	Prunes.....	Apple pie.....	Apple butter.....	Peaches.....	2	2	
	Chocolate.....	Chocolate.....	Chocolate.....	Chocolate.....	Chocolate.....	2	2	
	Apricots.....	Pineapple.....	Pears.....	Cherries.....	Peaches.....	2	2	
	Sardines.....	Crackers.....	Boned chicken.....	Ox tongue.....	Crackers.....	4	4	
	Potted ham.....	Crackers.....	Crackers.....	Crackers.....	Roast beef.....	4	4	
	Chocolate.....	Chocolate.....	Chocolate.....	Chocolate.....	Chocolate.....	4	4	
						4	4	
						4	4	
Night suppers.						4	4	To be served as a fourth meal.

Provisions for submarines.

Article.	Unit of quantity in commercial packages.	Unit per man per meal.	Article.	Unit of quantity in commercial packages.	Unit per man per meal.
Bread:		Ounces.	Beverages:		Ounces.
Flour (soda biscuits).....	Loose.....	4	Coffee.....	5-pound tin...	1
Flour, prepared (hot cakes).....	.....	1	Tea.....	.....	1
Corn meal (mush).....	Loose.....	1	Chocolate.....	5-pound tin...	1
Crackers, soda.....	7-ounce carton.....	4	Evaporated milk.....	1-pound tin...	.....
Meats:			Lime or lemon juice.....	Bottles.....	.....
Chipped beef.....	5-pound tin.....	8	Fruit:		
Corned beef.....	13-pound tin.....	8	Pineapple.....	2-pound tin...	8
Roast beef.....	21-ounce tin.....	8	Peaches.....	do.....	8
Bacon.....	Loose.....	8	Prunes.....	7-pound tin...	8
Boned chicken.....	1/2-pound tin.....	8	Dates.....	1-pound carton.....	8
Ox tongue.....	1/2-pound tin.....	8	Figs, dried.....	do.....	8
Potted ham.....	4-ounce tin.....	8	Apples.....	6-pound tin...	8
Salmon.....	1-pound tin.....	8	Pears.....	2-pound tin...	8
Sardines.....	1/2-pound tin.....	8	Cherries.....	do.....	8
Vegetables:			Apricots.....	do.....	8
Corn.....	11/2-pound tin.....	4	Blackberries.....	do.....	8
Peas.....	do.....	4	Raspberries.....	do.....	8
Spinach.....	2-pound tin.....	4	Jam:		
Beans.....	26-ounce tin.....	4	Figs, preserved.....	10-ounce carton.....	2
Lima beans.....	1/2-pound tin.....	4	Apple jelly.....	.....	2
Kidney beans.....	.....	6	Peach jam.....	1-pound jar.....	2
String beans.....	1/2-pound tin.....	4	Strawberry jam.....	do.....	2
Beets.....	2-pound tin.....	4	Orange marmalade.....	16-ounce jar.....	2
Tomatoes.....	do.....	4	Apple butter.....	7-ounce jar.....	2
Spaghetti.....	8-ounce tin.....	6	Peanut butter.....	12-ounce jar.....	2
Sweet potatoes.....	6-pound tin.....	4	Miscellaneous:		
Asparagus tips.....	2-pound tin.....	4	Vinegar.....	1-quart bottle.....	.....
Cauliflower.....	.....	4	Salad oil.....	1-gallon tin.....	.....
Rice.....	Loose.....	4	Catsup.....	1-pint bottle.....	.....
Peas.....	11/2-pound tin.....	6	Butter.....	5-pound tin...	1
Hominy.....	Loose.....	6	Baking powder.....	1-pound tin...	.....
Cereals:			Mustard, dry.....	do.....	.....
Hominy grits.....	do.....	1	Mustard, prepared.....	1-pound bottle.....	.....
Oatmeal.....	do.....	1	Lard.....	5-pound tin...	.....
Soups:			Pepper.....	1-pound tin...	.....
Chicken.....	8-ounce tin.....	3	Salt.....	Loose.....	.....
Tomato.....	do.....	3	Syrup.....	1-quart tin...	1
Pea.....	do.....	3	Worcester sauce.....	1-pint bottle.....	.....
Oxtail.....	do.....	3	Olives.....	16-ounce jar.....	.....
Clam chowder.....	do.....	3	Pickles.....	12 1/2-ounce bottle.....	.....

I.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., August 1, 1917.

To: All commanders in chief, commanding officers, and commandants.
Subject: Provisions for submarines.

1. These provision lists have been compiled by a board convened for that purpose by the submarine force commander and are published as a guide to commanding officers of submarines when laying in provisions for a cruise of maximum duration away from a base of supplies.

2. It will be understood, of course, that adherence to the particular articles on these lists is not mandatory, any other articles allowed by regulations and suitable for the purpose being permissible in substitution therefor; but these lists will be a dependable guide both as to articles and quantities whenever a protracted cruise is contemplated.

3. The lists were made up for 5, 10, and 15 day periods, so that there might be at hand for all classes of submarines a provision list for the period of time best suited to their individual maximum provision carrying capacity. In addition to these lists, the board has prepared a menu which should be followed almost exactly both as to quantity and day and meal of serving to insure the best results when provisions identical with the lists are taken on board. The board, in preparing the lists, made proper allowance for some unavoidable waste.

4. Ample quantities of the articles shown on the provision lists will be carried on board submarine tenders and at submarine bases for issue to individual submarines when required.

SAMUEL MCGOWAN.

Provisions for submarines.

27 MEN FOR 5 DAYS.

Article.	Unit of quantity.	Total quantity actually required.	Unit of quantity in commercial packages.	Number of commercial packages required.
Bread:				
Bread, fresh wheat.....	Pounds.....	135	1-pound loaf.....	135
Flour, wheat.....	do.....	10	Loose.....	
Meats:				
Beef, corned, tinned.....	do.....	22	1½-pound tin.....	15
Chicken, boned.....	do.....	10½	½-pound tin.....	22
Ox tongue.....	do.....	13½	1½-pound tin.....	9
Salmon.....	do.....	6½	1-pound tin.....	7
Bacon.....	do.....	6½	Loose.....	
Ham, smoked.....	do.....	13½	do.....	
Beef, fresh.....	do.....	54	do.....	
Eggs, fresh.....	Dozen.....	21	1-dozen carton.....	21
Vegetables:				
Corn, tinned.....	Pounds.....	10	1½-pound tin.....	8
Peas, tinned.....	do.....	20	do.....	16
Spinach, tinned.....	do.....	6½	2-pound tin.....	4
Baked beans, tinned.....	do.....	30	26-ounce tin.....	19
Fresh potatoes.....	do.....	85	Loose.....	
Cereals:				
Rice.....	do.....	2½	do.....	
Rollod oats.....	do.....	2	do.....	
Fruit:				
Peaches, tinned.....	do.....	10	2-pound tin.....	5
Pineapples, tinned.....	do.....	10	do.....	5
Prunes, tinned.....	do.....	14	7-pound tin.....	2
Preserved jam.....	do.....	3½	1-pound jar.....	4
Preserved dates.....	do.....	6½	1-pound carton.....	7
Preserved figs.....	do.....	6½	do.....	7
Apples, fresh.....	Dozen.....	2½	Loose.....	
Oranges, fresh.....	do.....	10	do.....	
Beverages:				
Coffee.....	Pounds.....	17	5-pound tin.....	4
Milk, evaporated.....	do.....	30	1-pound tin.....	30
Miscellaneous:				
Vinegar, bottle.....	Quart.....	1	1-quart bottle.....	1
Saled oil.....	Gallon.....	1	1-gallon tin.....	1
Catsup, bottle.....	Pints.....	4	1-pint bottle.....	4
Butter.....	Pounds.....	17	5-pound tin.....	4
Baking powder.....	do.....	½	½-pound tin.....	1
Mustard, dry.....	do.....	½	do.....	1
Mustard, prepared.....	do.....	1½	½-pound bottle.....	3
Pepper.....	do.....	5	½-pound tin.....	1
Salt.....	do.....	2	Loose.....	
Syrup.....	Quarts.....	2	1-quart tin.....	2
Sugar.....	Pounds.....	35	Loose.....	
Tomatoes.....	do.....	19	2-pound tin.....	10
Soup, condensed.....	do.....	13½	8-ounce tin.....	27
Ginger snaps.....	do.....	16	7-ounce carton.....	37
Peanut butter.....	do.....	2	12-ounce jar.....	3
Spaghetti, tomato sauce.....	do.....	13½	8-ounce tin.....	27

27 MEN FOR 10 DAYS.

Bread:				
Crackers, soda.....	Pounds.....	16	7-ounce carton.....	37
Bread, fresh, wheat.....	do.....	270	1-pound loaf.....	270
Flour, wheat.....	do.....	20	Loose.....	
Meats:				
Beef, corned, tinned.....	do.....	36	1½-pound tin.....	24
Beef, chipped, tinned.....	do.....	6½	5-pound tin.....	2
Chicken, boned, tinned.....	do.....	30½	½-pound tin.....	61
Codfish.....	do.....	6½	1-pound tin.....	7
Salmon.....	do.....	13½	do.....	14
Beef, roast, tinned.....	do.....	20½	21-ounce tin.....	16
Sardines.....	do.....	7	½-pound tin.....	28
Luncheon meats.....	do.....	10	26-ounce tin.....	7
Bacon, smoked.....	do.....	20½	Loose.....	
Eggs.....	Dozen.....	55	30-dozen case.....	2

Provisions for submarines—Continued.

27 MEN FOR 10 DAYS—Continued.

Article.	Unit of quantity.	Total quantity actually required.	Unit of quantity in commercial packages.	Number of commercial packages required.
Vegetables:				
Asparagus, tinned.....	Pounds.....	10	2-pound tin.....	5
Beans, string, tinned.....	do.....	10	1½-pound tin.....	7
Corn, tinned.....	do.....	80	1½-pound tin.....	24
Peas, tinned.....	do.....	30	do.....	2
Potatoes, fresh.....	do.....	140	Loose.....	.....
Cereals:				
Rice.....	do.....	9	do.....	.....
Rolled oats.....	do.....	6	do.....	.....
Fruit:				
Apples, tinned.....	do.....	10	6-pound tin.....	2
Apricots, tinned.....	do.....	20½	2-pound tin.....	11
Peaches, tinned.....	do.....	20	do.....	10
Pears, tinned.....	do.....	10	do.....	5
Pineapple, tinned.....	do.....	20	do.....	10
Prunes, tinned.....	do.....	28	7-pound tin.....	4
Jam, preserved.....	do.....	10	1-pound jar.....	10
Figs, preserved.....	do.....	12½	1-pound carton.....	14
Apples, fresh.....	Dozen.....	7	Loose.....	.....
Beverages:				
Coffee.....	Pounds.....	34	5-pound tin.....	7
Milk, evaporated.....	do.....	60	1-pound tin.....	60
Miscellaneous:				
Vinegar, bottle.....	Quarts.....	2	1-quart bottle.....	2
Salad oil.....	Gallons.....	2	1-gallon tin.....	2
Catsup, bottle.....	Pints.....	5	1-pint bottle.....	5
Butter.....	Pounds.....	34	5-pound tin.....	7
Baking powder.....	do.....	4	1-pound tin.....	4
Macaroni.....	do.....	3½	1-pound carton.....	4
Mustard, dried.....	do.....	2	1-pound tin.....	2
Mustard, prepared.....	do.....	2½	1-pound bottle.....	5
Pepper.....	do.....	1	1-pound tin.....	2
Salt.....	do.....	10	Loose.....	.....
Sirup.....	Quarts.....	4	1-quart tin.....	4
Sugar.....	Pounds.....	70	Loose.....	.....
Tomatoes.....	do.....	29	2-pound tin.....	15
Soup, condensed.....	do.....	27	1-pound tin.....	54
Ginger snaps.....	do.....	22	7-ounce carton.....	51
Peanut butter.....	do.....	6	12-ounce jar.....	8
Spaghetti, tomato sauce.....	do.....	27	8-ounce tins.....	54

27 MEN FOR 15 DAYS.

Bread:				
Crackers, soda.....	Pounds.....	38	7-ounce carton.....	87
Bread, fresh, wheat.....	do.....	405	1-pound loaf.....	405
Flour, wheat.....	do.....	30	Loose.....	.....
Meats:				
Bacon, tinned.....	do.....	64	12-pound tin.....	1
Beef, corned, tinned.....	do.....	56	1½-pound tin.....	38
Beef, chipped, tinned.....	do.....	134	5-pound tin.....	3
Chicken, boned, tinned.....	do.....	41	1-pound tin.....	82
Codfish, tinned.....	do.....	134	1-pound tin.....	14
Ox tongue, tinned.....	do.....	41	1½-pound tin.....	28
Salmon, tinned.....	do.....	27	1-pound tin.....	27
Beef, roast, tinned.....	do.....	31	2½-ounce tin.....	24
Luncheon meat, tinned.....	do.....	20	26-ounce tin.....	13
Eggs.....	Dozen.....	75	30-dozen case.....	3
Vegetables:				
Asparagus, tinned.....	Pounds.....	20	2-pound tin.....	10
Beans, string, tinned.....	do.....	20	1½-pound tin.....	17
Corn, tinned.....	do.....	41	1½-pound tin.....	33
Peas, tinned.....	do.....	50	do.....	40
Potatoes, fresh.....	do.....	190	Loose.....	.....
Cereals:				
Rice.....	do.....	16	do.....	.....
Rolled oats.....	do.....	8	do.....	.....
Fruit:				
Apples, tinned.....	do.....	41	6-pound tin.....	7
Apricots, tinned.....	do.....	41	2-pound tin.....	21
Peaches, tinned.....	do.....	41	do.....	21
Pears, tinned.....	do.....	21	do.....	11
Pineapple, tinned.....	do.....	30	do.....	15
Prunes, tinned.....	do.....	35	7-pound tin.....	5
Jam, preserved.....	do.....	24	8-pound tin.....	3

Provisions for submarines—Continued.

27 MEN FOR 15 DAYS—Continued.

Article.	Unit of quantity.	Total quantity actually required.	Unit of quantity in commercial packages.	Number of commercial packages required.
Beverages:				
Coffee.....	do.....	51	5-pound tin.....	11
Milk, evaporated.....	do.....	90	1-pound tin.....	90
Miscellaneous:				
Vinegar, bottle.....	Quarts.....	3	1-quart bottle.....	3
Salad oil.....	Gallons.....	3	1-gallon tin.....	3
Catsup, bottle.....	Pints.....	6	1-pint bottle.....	6
Butter.....	Pounds.....	51	5-pound tin.....	11
Baking powder.....	do.....	2	1-pound tin.....	1
Macaroni.....	do.....	7	1-pound carton.....	7
Mustard.....	do.....	3	1-pound tin.....	3
Mustard, prepared.....	do.....	3	1-pound bottle.....	8
Pepper.....	do.....	4	1-pound tin.....	3
Salt.....	do.....	15	Loose.....	.....
Sirup.....	Quarts.....	6	1-quart tin.....	6
Sugar.....	Pounds.....	105	Loose.....	.....
Tomatoes.....	do.....	40	2-pound tin.....	20
Soup, condensed.....	do.....	49½	8-ounce tin.....	99
Peanut butter.....	do.....	8	12-ounce jar.....	11
Spaghetti, tomato sauce.....	do.....	54	8-ounce tin.....	108

RATION FOR ONE MAN.

First day.—Breakfast—1 orange, 3 eggs, 4 ounces bacon, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup, ½ pound beef (fresh), 8 ounces potatoes, 6 ounces peas, 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces beef (fresh) in 1½ ounces rice and curry, 3½ ounces gingersnaps, 5 ounces toast, ½ ounce butter, 2 ounces jam or marmalade, ½ ounce coffee.

Second day.—Breakfast—1 orange, 8 ounces corned-beef hash, sufficient catsup, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—12 ounces beef roast (fresh); 8 ounces potatoes, 4 ounces spinach (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces beans (tinned), sufficient catsup, 4 ounces prunes (tinned), 5 ounces toast, ½ ounce coffee, ½ ounce butter.

Third day.—Breakfast—1 apple, 3 eggs, 1 ounce cereal, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—8 ounces tinned corned beef, 8 ounces potatoes, 6 ounces corn (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—2½ ounces soup (tinned), 8 ounces ham (sliced cold), 5 ounces tomatoes (tinned), 1 ounce peanut butter, 3½ ounces gingersnaps, 4 ounces figs, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Fourth day.—Breakfast—1 orange, 2 eggs, hot cakes with Karo sirup, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces tinned condensed soup, 6 ounces boned chicken (tinned), 8 ounces potatoes, 6 ounces peas, 6 ounces pineapple (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces spaghetti (tinned), 4 ounces salmon (tinned), 6 ounces peaches (tinned), 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Fifth day.—Breakfast—1 orange, 1 egg, 6 ounces corned-beef hash, sufficient catsup, 5 ounces bread toast, ½ ounce butter, ½ ounce coffee; dinner—8 ounces ox tongue (tinned), 8 ounces potatoes, 6 ounces tomatoes (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces beans (tinned), sufficient catsup, 4 ounces prunes (tinned), 5 ounces bread, ½ ounce butter, ½ ounce coffee, 4 ounces dates, 3½ ounces gingersnaps.

Sixth day.—Breakfast—1 apple, 1 ounce cereal, 3 eggs, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—6 ounces boned chicken (tinned), 8 ounces potatoes, 6 ounces corn (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—4 ounces sardines (tinned), 3½ ounces crackers, 1 ounce peanut butter, 4 ounces prunes (tinned), 5 ounces bread toast, ½ ounce butter, ½ ounce coffee.

Seventh day.—Breakfast—1 apple, 3 eggs, 4 ounces bacon, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—6 ounces roast beef (tinned); 8 ounces potatoes, 6 ounces peas (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces spaghetti, 4 ounces salmon (tinned), 6 ounces peaches

(tinned), 5 ounces bread, 3½ ounces gingersnaps, ½ ounce butter, 4 ounces figs, ½ ounce coffee.

Eighth day.—Breakfast—6 ounces apricots (tinned), 4 ounces omelette (from fresh eggs), 1 ounce cereal, 5 ounces bread toast, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 8 ounces corned beef (tinned), 6 ounces tomatoes (tinned), 8 ounces potatoes (fresh), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—4 ounces chipped beef (tinned), 2 ounces rice, 6 ounces pineapple (tinned), 3½ ounces crackers, 2 ounces jam, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Ninth day.—Breakfast—6 ounces apples (tinned), 4 ounces omelette (from fresh eggs), 4 ounces bacon, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 6 ounces boned chicken (tinned), 2 ounces macaroni, 6 ounces string beans (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—6 ounces luncheon meat (tinned), 6 ounces asparagus (tinned), 4 ounces prunes (tinned), 1 ounce peanut butter, 3½ ounces crackers, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Tenth day.—Breakfast—6 ounces pears (tinned), 4 ounces omelette (from fresh eggs), hot cakes with Karo sirup, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 6 ounces roast beef (tinned), 8 ounces potatoes (fresh), 6 ounces corn (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—4 ounces codfish (tinned), 2 ounces rice, 6 ounces apricots (tinned), 2 ounces jam, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Eleventh day.—Breakfast—6 ounces peaches (tinned), 8 ounces corned-beef hash, sufficient catsup, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 8 ounces ox tongue (tinned), 6 ounces peas (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces spaghetti (tinned), 4 ounces salmon (tinned), 6 ounces apples (tinned), 3½ ounces crackers, 2 ounces jam, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Twelfth day.—Breakfast—6 ounces apricots (tinned), 4 ounces omelette (from fresh eggs), 1 ounce cereal, 5 ounces bread toast, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 8 ounces corned beef (tinned), 6 ounces tomatoes (tinned), 8 ounces potatoes (fresh), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—4 ounces chipped beef (tinned), 2 ounces rice, 6 ounces pineapple (tinned), 3½ ounces crackers, 2 ounces jam, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Thirteenth day.—Breakfast—6 ounces apples (tinned), 4 ounces omelette (from fresh eggs), 4 ounces bacon, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 6 ounces boned chicken (tinned), 2 ounces macaroni, 6 ounces string beans (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—6 ounces luncheon meat (tinned), 6 ounces asparagus (tinned), 4 ounces prunes (tinned), 1 ounce peanut butter, 3½ ounces crackers, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Fourteenth day.—Breakfast—6 ounces pears (tinned), 4 ounces omelette (from fresh eggs), hot cakes with Karo sirup, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 6 ounces roast beef (tinned), 8 ounces potatoes (fresh), 6 ounces corn (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—4 ounces codfish (tinned), 2 ounces rice, 6 ounces apricots, 2 ounces jam, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

Fifteenth day.—Breakfast—6 ounces peaches (tinned), 8 ounces corned-beef hash, sufficient catsup, 5 ounces bread, ½ ounce butter, ½ ounce coffee; dinner—2½ ounces soup (tinned), 8 ounces ox tongue (tinned), 6 ounces peas (tinned), 6 ounces bread, ½ ounce butter, ½ ounce coffee; supper—8 ounces spaghetti (tinned), 4 ounces salmon (tinned), 6 ounces apples (tinned), 3½ ounces crackers, 2 ounces jam, 5 ounces bread, ½ ounce butter, ½ ounce coffee.

N. S. A. 555.

Article _____ Date _____

(Name of supplier.)

(Address.)

Stock on hand:

Normal 30-day output:

Maximum 30-day output:

Remarks.

K.

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 Zinc.....

O.

Purchases under the Bureau of Supplies and Accounts.

Month.	Fiscal year, 1914.	F
July.....	\$2,644,525.46	
August.....	2,463,509.85	
September.....	792,960.76	
October.....	471,990.90	
November.....	1,049,667.07	
December.....	1,050,203.25	
January.....	777,861.84	
February.....	1,440,548.13	
March.....	790,850.12	
April.....	3,728,876.26	
May.....	1,588,218.77	
June.....	1,990,090.45	
Total.....	17,201,084.86	12

P.

Analysis of total expenditures.

	Fiscal year end- ing June 30, 1913.	Fis in
Purchase and construction of new vessels.....	\$24,630,999.06	\$4
Additions and improvements to industrial yards.....	3,494,849.00	
Additions and improvements to military yards.....	3,948,283.29	
Repairs to vessels.....	4,202,109.04	
Changes and alterations to vessels.....	3,310,772.91	
Repairs to ships' equipage.....	377,572.14	
Ships' equipage.....	11,210,394.06	
Operation of vessels.....	41,263,554.03	
Maintenance of industrial navy yards.....	3,322,543.43	
Maintenance of nonindustrial yards.....	10,757,838.04	
Marine Corps.....	5,758,531.25	
Increases in stores on hand.....		
Miscellaneous (includes pay of retired officers and men, mileage and traveling expenses of officers, civilians, and enlisted men, outfits on first enlistment, transportation and recruiting, and losses in stores)...	17,509,786.85	30,1
Total.....	129,787,233.10	261,4

OF SUPP THE PAYMASTER

AS

Civilian Assistant

Assistant for
Accounting

ACCOUNTING DIVISION 1. OFFICER IN CHARGE

11. SECRETARY

3. Assistant for
General Accounting

4. Special Assistant
for Cost Inspection

2. CHIEF ACCOUNTANT

STENOGRAPHERS

1. Stenographer
2. Stenographer
3. Stenographer
4. Stenographer

LEDGERS

6. General ledger
7. Disbursing officer's ledger
8. Money requisitions
9. B Record of money receiptability
10. Cashier's assistant

STENOGRAPHERS AND RECEPTIONISTS

12. Stenographer
13. Stenographer
14. Receptionist
15. Receptionist
16. Receptionist

FILE SECTION

5. Head file clerk
6. Examiner of papers before filing
7. Indexers - Analyze No. 1
8. Follow-up file
9. Getting out files - Analyze No. 2
10. Getting up cases
11. Planning up cases
12. Planning up cases
13. Planning up cases
14. Filing index cards
15. Assistant to No. 2
16. Filing papers and getting out files
17. Filing papers and getting out files
18. Filing papers and getting out files
19. Filing papers and getting out files
20. Filing papers and getting out files

ACTION SECTION

21. Stenographer
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COST SECTION

61. Chief Stationer
62. Stenographer
63. Stenographer
64. Stenographer
65. Property investment
66. Industrial accounting
67. Expense statements and plant inventory
68. General cost accounts
69. Tabulating
70. Tabulating
71. Tabulating
72. Punching-general
73. Punching-pay rolls, materials, and subcontractors
74. B Punching-Reports of expenditures
75. B Punching-Analysis of pay of the Navy
76. B Punching-Public bills

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64. B Cost inspection
65. B Cost inspection
66. B Cost inspection
67. B Cost inspection-New construction
68. B Cost inspection-Repairs
69. B Cost inspection-Subsidiary

AUDIT SECTION

71. Chief auditor
72. Stenographer
73. General auditor
74. Balance sheets - "1"
75. Balance sheets - "2"
76. Balance sheets - "3"
77. Receipts, R.E.A.
78. Ship's money statements and receipts
79. Balance sheets - "4"
80. Balance sheets - "5"
81. Balance sheets - "6"
82. Provisions and clothing
83. Provisions and clothing
84. Provisions and clothing
85. Provisions and clothing
86. Provisions, ships
87. Provisions, ships
88. Provisions, ships
89. Provisions, ships
90. Provisions, ships
91. Clothing and small arms
92. Clothing and small arms
93. Ship's stores
94. B Expenses
95. B Expenses
96. Transfers
97. Transfer statements
98. Transfer statements
99. Transfer statements
100. Transfer statements

BRIDGE DIVISION
UNDER THE CHARGE

S. Anderson

S. H.

Chief Clerk

CONTRACTS

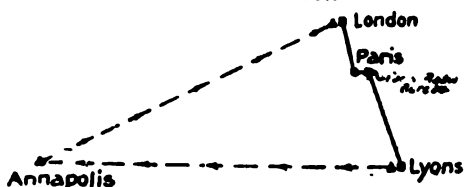
OF PUBLIC

CONTRACTS

SECTION

SECTION

Nº1 ANNAPOLIS TO LONDON



Annopolis to London

Received by Radio in London

London to Annapolis.

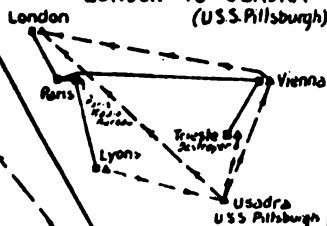
London to Paris, by land wire.

Paris to Paris Radio Bureau, by land wire

Paris Radio Bureau to Lyons, by French wire

Lyons to Annapolis, by Radio

Nº3 LONDON TO USADRA (U.S.S. Pittsburgh)



TO ME

CONSTANTINOPLE
U.S.S. Galveston

LEGEND -

— Telegraph

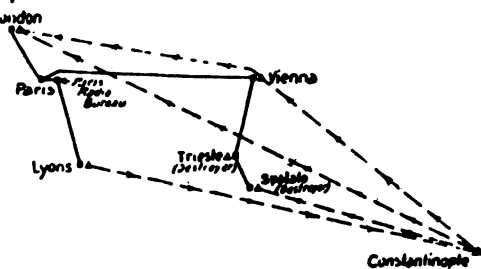
--- Radio (Anno)

■ Telegraph

▲ Radio

London conn
London conn
Paris-Coblenz-Vi
U.S.S. Pittsburgh
London conn
Paris-Lyons; by
London conn
Paris-Lyons; by
London conn
Coblenz-Vienna
London conn
Lyons; by Radio
London conn
Lyons; by Radio

LONDON TO CONSTANTINOPLE



SYSTEM IN EUROPE,

Approved:
J.P. Allen
12-8-20.
Drawn by Draftsman,
American Embassy,
12-8-20

Secretary DANIELS. Now, not only, Mr. Chairman, in business matters has the Navy Department made a record, but has won the approval of business men, and in other ways shown that it was worthy of the commendation it has received at home and abroad, but long before the war—in fact, in 1914—the Navy Department was keen about educating the young men in the Navy and providing for the best and healthiest moral environment.

Under the administration of President McKinley, Secretary Long issued an order forbidding the sale of alcoholic liquors to enlisted men. On July 1, 1914, I issued an order, upon the recommendation of the Surgeon General of the Navy, abolishing the wine mess on board of ships and stations of the United States Navy. That order made the same rule apply to officers as already applied to enlisted men. The criticism which the wine-mess order received soon died out, and in our Navy it has come to be regarded by the officers, who first objected to it, as a wise regulation. That order is General Order No. 99, and is as follows:

General Order No. 99.

NAVY DEPARTMENT,
Washington, D. C., June 1, 1914.

Change in article 627, Naval Instructions (99).

On July 1, 1914, article 827, Naval Instructions, will be annulled, and in its stead the following will be substituted:

"The use or introduction for drinking purposes of alcoholic liquors on board any naval vessel, or within any navy yard or station, is strictly prohibited, and commanding officers will be held directly responsible for the enforcement of this order."

JOSEPHUS DANIELS,
Secretary of the Navy.

But, of course, this step caused criticism in and out of the Navy. When convinced that it was a sound policy I issued the order, and the fact it has received almost universal approval testifies to its wisdom. It was preparedness in peace and demonstrated its wisdom in war. When issued, however, the aid for Operations, Rear Admiral Fiske, retired, among others, was so hostile to the order that he persistently sought to induce its revocation. The reasons he advanced were wholly unsound and reflected unjustly upon the officers of the Navy. Inasmuch as this order has been the subject of so much criticism, at first adverse and later in commendation, I will insert the letter of Rear Admiral Fiske, for it contains the whole argument of the opposition. He wrote as follows.

I call particular attention to one statement, on page 7, in this letter, in which he said that if this order stood, among other bad effects which he prophesied, which have not come to pass:

Another effect would be the increased temptation to officers to secrete whisky in their rooms.

I regarded that then, and regard it now, as an unjust reflection on the officers of the Navy. I knew their temper and their character, and I knew that they would obey the regulation and that there never would be any trouble by reason of officers secreting whisky in their rooms. I do not know that any civilian or officer has ever made such a severe and unjust reflection upon naval officers as this, except the following. Admiral Fiske also said:

Another effect would be an increased temptation to use cocaine and other drugs. This danger is real, not imaginary.

That was an absolutely unjustified and unfounded aspersion upon the officers of the Navy. There was no warrant to suppose that because the department had issued an order forbidding intoxicants on board ships of the Navy or at naval stations, naval officers would use cocaine and other drugs. History has shown that Admiral Fiske's statement that it was really not an imaginary danger, was not correct. It was wholly imaginary, in his mind; never real; and officers of the American Navy were never at any time disposed to indulge in the use of cocaine and other drugs, because of General Order No. 99.

The letter of Admiral Fiske is here printed in the record as follows:

NAVY DEPARTMENT,
Washington, May 27, 1914.

From: The Aid for Operations.

To: The Secretary of the Navy.

Subject: Prohibition of wine and beer in ships and at naval stations.

1. Referring to our verbal conversation of May 22 on this subject, and to your permission to speak to you further on the subject, I beg leave to present my views in writing, as I can do so more concisely than by word of mouth.

2. I know that I do not speak for myself alone, but that I voice the belief of more than 95 per cent of the officers of the Navy, including many officers who are total abstainers, and not excluding chaplains of experience. I am sure that my opinion is shared by the officers of the Army; and so far as I can judge from what is said to me and written to me by civilians, both in public life and private life, my opinions are those of a very large majority of the influential people of the country. The evil effects of the abolition of the "canteen" in the Army are too well known to need more than a mention.

3. In my opinion the prohibition of wine and beer on board ships and at naval stations would be a very serious mistake for the following reasons: (a) Such prohibition is unnecessary; (b) It would not increase the temperateness of the officers; (c) it would not increase the difficulties of maintaining discipline; (d) it would impair the military efficiency of the service.

4. Referring to (a), I think the prohibition unnecessary because, while there are many causes which prevent the efficiency of the Navy from reaching the mark naval officers all aspire to, intemperance is not one of them.

The officers of the Navy are the only body of men who study its welfare profoundly, not superficially. Enlisted men for the most part continue in the service but a very short time, but the officers of the Navy spend their lives in the Navy, and in some cases their fathers and grandfathers did before them. Many civilians take an active interest in the Navy; but their interest, while sincere and patriotic, can not reasonably be expected to inform them as to what is best for the service. Most of them recognize the fact that the Navy is a profession as clear cut as that of medicine, so that its officers are the only ones who can know what is best for the peculiar conditions in the Navy. In all of the discussions of the Naval Institute and the War College, and in other meetings of naval officers, I can not recall a single instance in which intemperance was mentioned as a factor existing in such a degree as to injure the efficiency of the Navy.

5. In this connection, I beg leave to call the attention of the Secretary to the following statement in the published letter of the Surgeon General:

"The prohibition of alcohol to the men has rendered alcoholism among them almost a negligible quantity. Surely the officers should be in all respects models for the enlisted men in duty, habits, and deportment; and the examples of officers drinking on board ships, as fostered by the wine mess, and the numerous courts-martial of officers for drunkenness and the effects of alcohol are destructive of discipline and morale, bad for the enlisted men, and detrimental to the reputation and good name of the service."

This statement was published in many newspapers, practically all over the United States. I think I am not wrong in saying that there went into the mind of every person who read this statement—man, woman, or child—an impression that the officers of the United States Navy drank more than they should and that the Surgeon General of the Navy found it necessary to call the attention of the Secretary to the fact. The reputation of the Navy suffered in the minds of every single person who read that statement; every single officer in the

United States Navy was injured by that statement. The only possible justification for the statement and for its publication throughout the world would be that the statement was true. If the statement were true, I would have nothing to say, and the officers of the Navy and their friends and families would feel no sense of indignation; but the statement is not true. "Alcoholism among the enlisted men" is not "a negligible quantity." Officers are "models for the enlisted men in duty, habits, and deportment." "The examples of officers drinking on board ship, as fostered by the wine mess," have not resulted in "numerous courts-martial of officers for drunkenness," and "the effects of alcohol" (as used on board our ships) are not "destructive of discipline and morale, bad for the enlisted men, and detrimental to the reputation and good name of the service."

Drunkenness exists among enlisted men in a very much greater degree than among the officers. The large majority of offenses of all kinds punished on board our ships are caused by drinking by enlisted men. Nearly all of this drinking is done on shore and can not be controlled by naval regulations. The fact that an enlisted man is not now allowed to have one bottle of beer on board for dinner (only one was allowed formerly, brought alongside in port by the bum-boat) has not improved their sobriety, because it can not alter at all the fact that the one bottle of beer never made a man drunk or intoxicated, and the men can get drunk (and very drunk, indeed) when they go ashore. As to the officers, careful observation and comparison have led me to the conclusion that there is less intemperance among them than among an equal number of men of like station in civil life.

6. Regarding (b), I have never known a case of drunkenness aboard ship due directly to the wine mess. People rarely get drunk on wine or beer. It is difficult to do so. In practically every case, when an officer has become intoxicated, it has been on whisky, or something like whisky, such as brandy, and usually on shore. This being the case, the prohibition of wine and beer on our ships will not decrease the amount of drinking of whisky but will tend to increase it, for the obvious reason that officers desiring to drink will go ashore and drink strong cocktails, with no official restraining influences, instead of staying aboard ship and drinking wine or beer under the eyes of brother officers and amid conditions distinctly discouraging to excess.

7. Regarding (c), the effect of the suggested order would be to divorce officers from their ships—a very unfortunate effect, because we have always tried to get officers to regard their ships as their homes.

Another effect would be the increased temptation to officers to secrete whisky in their rooms, and to drink whisky (a most dangerous thing) instead of wine or beer. Another effect would be an increased temptation to use cocaine and other drugs. This danger is real—not imaginary. Many people crave stimulant of some sort, and if they can not get what they prefer will take anything they can get. Cocaine takes up little space and is very convenient. Its use among enlisted men has increased since they were prohibited the daily bottle of beer.

8. Regarding (d), I most respectfully call the attention of the Secretary to the fine state of efficiency of naval officers at present, as shown by their splendid work in Mexico within the past month. This is due to the fine spirit of the officers themselves. Without this spirit no amount of regulations can avail. This spirit is a very fine spirit and a beautiful spirit; and anything that impairs it will injure the service. Napoleon has been quoted as replying to a colonel who was excusing some poor work by complaining of the bad quality of his regiment, that "there are no poor regiments, but often poor colonels." This was his method of stating that as the leaders are—the officers—so will be the followers—the men. This is more distinctly true of a navy than an army, because a ship's officers and men are much more bound up together than a regiment is; and the efficiency of the ship flows directly from the spirit of its officers.

9. To hold our officers up to the country as a body of men lacking in the self-control necessary for the performance of their duty, which would be done by making an order of the kind suggested, would be to strike directly at their dignity as men and lower their pride in themselves and their calling.

10. The enthusiasm and cheerful obedience necessary to the best efficiency have never been attained by such methods. The officers of the Navy are a dignified and high-minded set of gentlemen. Their ideals and standards will compare more than favorably with those of average men in civil life. Such of them as I have heard speak about the suggested order regard it as an un-

merited indignity, an act of disrespect to a set of men most of whom are of settled (and good) habits, and many of whom have grown gray in their honored profession.

11. This being the condition, it must follow that the effect of this order, if issued, will be to impair efficiency, a sense of injustice always does. Great efficiency can exist only when mutual liking and confidence prevail. And while the officers of the Navy may always be relied upon to do their duty, they may be the more relied upon for initiative and zeal if their pride in themselves is not weakened.

12. As a very minor matter, there would be the inconvenience which the proposed regulation would cause in intercourse with foreign diplomatic, military, and naval officials. Whether right or wrong, the world custom is to use wines in the exchange of official courtesies. Our officers, if the proposed regulation is issued, will be placed in the embarrassing dilemma of either declining a glass of wine when tendered as an ordinary and usual courtesy by a well-meaning foreign host, or of accepting the wine—international custom exacts that it shall be accepted, even if not drunk—knowing that when the courtesy is returned, as it must be, whether in the form of a call or a dinner, he will be unable to respond in the same manner—in the manner made usual among the politer nations.

B. A. FISKE.

WHY THE ORDER WAS ISSUED.

Of course, when Admiral Fiske in person and by letter urged the revocation of the order he found that I was courteous in giving him a hearing but adamant to his pleas, because I had no doubt then, and am stronger in the belief with every day, in the wisdom of General Order No. 99. Why was the order issued? In an address at a banquet in New York on the 16th day of April, 1914, I said:

I have recently issued an order abolishing the wine mess. With singular lack of logic critics who see fit to represent me as a foe to discipline on the one hand twist this into a case of discipline run mad on the other. Far greater questions than that of discipline lie back of this. There is no body of more temperate, clear-headed men in the world than our officers; but let me for a moment put the shoe on the other foot and bring the question home in another form to you gentlemen to-night. Of all trades there is probably no finer or more sober or more intelligent, more self-controlled men than our railroad engineers. Upon their sobriety, upon their clearheadedness, upon their capacity to govern themselves depend daily the lives of millions of our citizens. Your life to-day, to-morrow, whenever you leave this city, will for a greater or less time lie in the hollow of the engineer's hand. Many of the railroads have established club houses for these engineers, where they may read, meet, and pass away time between their runs. What say you, gentlemen, you with your railroad tickets in your pockets, to a proposition that the railroads should issue an order that the engineers off duty at these club houses should be allowed to establish a wine mess of their own. Would the fact that 99 per cent or 999 out of 1,000 of these men would take no advantage of such an order and would go to their work the next morning with eyes just as clear and hands just as steady as they were the night before—would that fact do away with the possibility of the one-hundredth man or the one-thousandth man moving the wrong lever at a critical moment or sleepily overlooking the danger signal? Would you not demand an order abolishing such an arrangement? Yet this is precisely a fair comparison. The wreck of a great battleship, the loss of a critical battle, and the honor of our country may easily hinge upon one of many men in the varied and complex duties which these great masses of intricate machinery called battleships have created. Would you take any chances with the engineer of your train? Why, then, should you seriously ask me to take chances with those who direct the movements of our ships?

The order issued was based upon the recommendations of the Surgeon General of the United States Navy, Dr. W. C. Braisted, who came to his present office fresh from the position of fleet surgeon of the Atlantic Fleet. His report is as follows:

"In accordance with your request, based in part upon a perusal of the inclosed copy of an article by Col. L. M. Maus, Medical Corps, United States

Army, on 'Alcohol and racial degeneracy,' I present herewith certain information relative to the alcohol problem—for it is still a problem—in the Navy.

"The use of alcohol stimulants in our service was inherited, with many outgrown customs, at the very birth of the American Navy, and was until comparatively recent years recognized officially, to the extent of issuing a daily allowance of spirits on shipboard. An appreciation of the evils directly and indirectly attendant upon the use of intoxicants, even in moderate degree, has, however, grown steadily in strength within the service itself, fostered, no doubt, by an awakening of public sentiment distinctly unfavorable to intemperance. This is shown by a progressive diminution in the number of admissions to the sick list for alcoholism and by the enactment of legislation tending to restrict the use of intoxicating liquors by all persons in the naval and military services of the United States.

"The Articles for the Government of the Navy, which are based on law, state (art. 13) that 'distilled spirits shall be admitted on board vessels of war only upon the order and under the control of the medical officers of such vessels and to be used only for medicinal purposes.'"

As further showing the trend of legislation the following extract is quoted from section 38 of the act to increase the efficiency of the permanent Military Establishment, approved February 2, 1901: "The sale of or dealing in beer, wine, or any intoxicating liquors by any person in any post exchange or canteen or Army transport or upon any premises used for military purposes by the United States is hereby prohibited."

From the above it must be clear that Congress has plainly set the stamp of disapproval upon the use of intoxicants by persons in the naval and military services. It is therefore of interest to inquire how far the Navy Department, through official orders and regulations, has participated in this movement in the way of reform. Reference to article 827, Naval Instructions, 1913, seems particularly informing, and attention is invited to paragraph 1, which reads as follows:

"Wardroom officers may form a wine mess, of which all commissioned and warrant officers attached to the ship may become members upon the payment of mess entrance fee, but no officer shall be required to become a member thereof. Suitable locker room for wine-mess stores shall be provided when fitting a ship for sea."

No doubt this paragraph conforms to the letter of the law, but it may be an open question as to how far it fulfill these laws in spirit. As matters stand to-day, an enlisted man is, very properly, subjected to severe disciplinary measures if wine or beer be found in his possession on shipboard, yet the same man is constantly aware of the free use of alcoholic liquors on board ship, which is officially permitted to officers and of too frequent derelictions which occur among them in consequence. The prohibition of alcohol to the men has rendered alcoholism among them almost a negligible quantity. Surely, the officers should be in all respects models for the enlisted men in duty, habits, and deportment, and the example of officers drinking aboard ship, as fostered by the wine mess and the numerous courts-martial of officers for drunkenness and the effects of alcohol, are destructive of discipline and morale, bad for the enlisted men, and detrimental to the reputation and good name of the service. The Navy is comparable in many respects to a great business organization, but no efficient corporation in civil life would tolerate such a condition of affairs.

The restricted measures which are now enforced, so far as they go, accord with legislative action, are supported by public opinion and a steady increasing service sentiment, and are based on sound moral and physiological principles. Why, then, are they effective for a part of the personnel only, instead of applying with equal force to the whole? It is difficult to find a satisfactory answer, especially in view of the youth of some of our officers, who may now be commissioned at 22 years of age, and the proposed reduction of the minimum to 20. To assume that even the moderate use of alcohol will better equip them physically for 40 years of active service, or mentally to meet responsibilities of the gravest import, or intellectually to solve problems which may involve our national existence, or morally to represent this country at home or abroad is against all reason. It may be stated as a fact, that except as a temporary expedient to certain cases of illness, the use of alcohol is harmful and its abuse is disastrous alike to the individual and to the human race. Its use in the service is based only upon outworn customs, and there is no authority, by law or otherwise, for its continuance, except as contained in the naval instructions.

You have asked my opinion on this matter and I have expressed it frankly, uninfluenced by prejudice or traditions of the past. In view of the foregoing I find it my plain duty to make the following recommendations:

1. That a general order be issued, in substance as follows:

"On and after July 1, 1914, the use or introduction, for drinking purposes, of alcoholic liquors on board any naval vessel or within any navy yard or station is strictly prohibited, and commanding officers will be held directly responsible for the enforcement of this order."

2. That article 827, Naval Instructions, 1913, be revoked or modified in accordance with the general order specified above.

It is probable that upon certain special occasions international courtesy might render it advisable to temporarily modify such a regulation. This could readily be done by departmental order. At the same time efforts might be made to obtain an appropriation for the entertainment of our foreign guests in a manner which would avoid the possible appearance of criticizing their own customs and regulations.

In announcing the new order to the press I made this statement:

I have issued an order abolishing the wine mess on board all ships and stations in the United States Navy. The order puts into effect the same rule with reference to intoxicants in the Navy which the laws of Congress have imposed on the Army. The Secretary issued this order upon the recommendation of the Surgeon General of the Navy. The order, which goes into effect on the 1st of July, is in these words:

"The use or introduction for drinking purposes of alcoholic liquors on board any naval vessel, or within any navy yard or station, is strictly prohibited, and commanding officers will be held directly responsible for the enforcement of this order."

I am in hearty agreement with the views expressed by the Surgeon General in his paper accompanying the recommendation. There should not be on ship-board, with reference, to intoxicants one rule for officers and another and a different rule for the enlisted personnel. The saddest hour in my official life is when an officer or enlisted man must be punished for intoxication. During the past week it has been my painful duty to approve a court-martial for dismissal from the service of an officer for intoxication. He told me that he had never tasted intoxicating drink until he did so in the wine mess on his cruises. Others who have been disciplined for drinking to excess have made similar statements to me. Officers are now commissioned at the early age of 22 years. Has the Government a right to permit this temptation which too often destroys the highest usefulness of young officers? I think not. If there is one profession more than any other that calls for a clear head and a steady hand it is the naval profession. Experience has shown the wisdom of having no intoxicants on our ships for the young men who enlist. I believe experience has demonstrated that a uniform rule should prevail in the Navy for all who enlist in the service, from the highest rank to the youngest enlisted man or officer who comes into the service, and that the abolition of the wine mess will be justified.

It seems impossible that those who criticize this order are aware of what is going on in the other navies of the world. Surely the action of the German Navy is not to be disregarded, nor the views of Germany's great war lord. For the education of such critics as speak from ignorance I can not refrain from reading to you a few extracts from Emperor William's speech to the naval cadets at Murwick, in which he said that the next war would be won by the nation that did not use alcohol. The German Emperor said:

"I know very well that the pleasure of drinking is an old heritage of the Germans. We must henceforth, however, through self-discipline, free ourselves from this evil in every connection.

"In earlier times it passed for extraordinary cleverness in the youth for him to imbibe a large quantity of alcohol and bear it. I, as a young officer, had occasion to see such examples, but never allowed myself to participate. These are views that suited the Thirty Years' War; but now, no more.

"Entirely apart from the consequences which I need not further portray, I desire to approve you on one point for your future career in the first line. As you yourselves will observe during the course of your term of service on board, the service in my navy has reached such a height of strenuousness as you can hardly surpass.

"To endure these enormous peace exertions without exhaustion and to be fresh in the event of real seriousness depends on you. The next war and the

next sea battle demand sound nerves of you. Nerves will decide. These become undermined through alcohol, and from youth up by the use of alcohol endangered.

"You will later have opportunity to see the target ships and the action of the modern projectiles upon the ships, and therefrom you can picture the conditions during the battle. You will see horrible destruction when you are upon these.

"Here it calls, 'Steady nerves and a cool head!'

"That nation which consumes the least quantity of alcohol wins; and that you should be, my gentlemen. And through you an example should be given the crews.

"And in consequence of this I expect of you that even now, at the naval academy and on board ship, in all comradeship and friendliness in no way disturbed among yourselves, you take heed thereto and provide that the indulgence in alcohol be not counted as belonging to your privileges."

Nor do we have to look to Germany alone for support of this new policy. Surely no man will criticize Admiral Lord Charles Beresford, C. B., as being a man without knowledge or respect of navy customs and traditions, nor as one who has not had opportunity to study carefully this question as he has seen it presented in the greatest navy in the world. Yet this is what Sir Charles Beresford said in his speech at Gibraltar in 1904:

"When I was a young man I was an athlete. I used to box a great deal, ride steeplechases and races, play football, and go through a number of competitive sports and pastimes. When I put myself into training, which was a continual occurrence, I never drank any wine, spirits, or beer at all, for the simple reason that I felt I could get fit quicker without taking any stimulants. Now I am an older man and have a position of great responsibility, often entailing quick thought and determination and instant decision; I drink no wine, spirits, and beer, not because they do me harm, not because I think it wrong to drink, but simply because I am more ready for any work imposed upon me, day or night; always fresh, cherry, and in good temper."

Surely, with this evidence of the attitude of the German Emperor, and the Germany Navy, and the great English admiral, and the 20,000 or more officers and men of the English Navy, it can not be said that my order is either revolutionary or out of line with the spirit of the greatest navies of the world.

This order has been widely commended. Hon. John D. Long, Secretary of the Navy under McKinley, in a recent statement said:

"Secretary Daniels's order is the natural sequence of my own prohibiting liquors for enlisted men in the Navy. (General Order No. 508, issued Feb. 3, 1899.) That was as far as we could go at that time, but in due season it became apparent that enlisted men could not be prohibited from the use of intoxicating liquors and at the same time the officers associated with them and in command of them permitted their use. While some officers may demur at this new order, I suspect that very many will really be glad of it, as was the case with my previous order. To the credit of our naval officers, it must be borne in mind that they are for the most part temperate men of high character, and, while some of them may use liquors moderately, most of them are entirely exemplary in conduct and life.

"Then, too, it can not be denied that this action of the Secretary is making for the cause of temperance at large, especially in Government spheres. With such a serious evil as intemperance, the Government should lead in its suppression. If any complication with foreign officials is involved, the Navy Department will undoubtedly make provision for it. But it is more than likely that foreign vessels will be led by this example to consider and imitate it, so that the drink evil in foreign navies may be put in process of elimination as well as in our own."

The following is a copy of the order to which Secretary Long referred:

General Order No. 508.

NAVY DEPARTMENT,
Washington, February 3, 1899.

After mature deliberation, the department has decided that it is for the best interest of the service that the sale or issue to enlisted men of malt or other alcoholic liquors on board ships of the Navy or within the limits of naval stations be prohibited.

Therefore after the receipt of this order commanding officers and commanders are forbidden to allow any malt or other alcoholic liquor to be sold to or issued to enlisted men, either on board ship or within the limits of navy yards, naval stations, or marine barracks, except in the Medical Department.

JOHN D. LONG, *Secretary.*

From medical sources the commendation has been most gratifying. The Journal of the American Medical Association of April 11, 1914, says:

ALCOHOL BARRED FROM THE NAVY.

Alcohol as a beverage has been barred out of the United States Navy. Following the recommendation of Surg. Gen. Braisted, Secretary of the Navy Josephus Daniels has issued an executive order abolishing all alcoholic liquors from every ship and station of the Navy. The order reads:

"The use or introduction for drinking purposes of alcoholic liquors on board any naval vessel or within any navy yard or station is strictly prohibited, and commanding officers will be held directly responsible for the enforcement of this order."

The significance and extent of the change which has taken place in popular views regarding alcohol, as indicated by this sweeping order of the Secretary, can be appreciated only when one recalls the stories of naval experiences of past generations, when rum, brandy, and whisky formed a part of the official regular rations; when liquor of some kind was served, as a routine procedure, to officers and men before going into action; and when one of the chief characteristics of sailors, whether officers or seamen, was their ability to dispose of an amazing quantity of intoxicants. The development of scientific methods and the use of instruments of precision in warfare have made alcohol absolutely detrimental to the modern navy man. Sea fights in the past were won by brute hardihood and physical endurance, which could perhaps be stimulated, temporarily at least, by large doses of alcohol. The modern warship is a floating laboratory of delicate and accurate machines. The gunpointer, who directs a 14-inch rifle on the modern man-of-war, needs not only personal courage, but also absolute steadiness of nerve, clearness of vision, and fine muscular coordination. All these things modern physiology has shown to be impaired by even small amounts of alcohol. The engineer who superintends the machinery at the heart of the modern battleship, the man at the wheel, who directs its course, and the captain or executive officer on the bridge, as well as the most humble member of the crew, need at all times to be in a condition of maximum physical and mental efficiency. Intoxication in the naval officer to-day might easily be as disastrous as cowardice and treason. Surg. Gen. Braisted's recommendations and Secretary Daniels's order are simply in line with our growing knowledge. The Nation needs on its battleships to-day the most capable, clear-headed, cool-brained, and steady-handed men, and these men are not found among the habitual or occasional users of alcohol in any form. Entirely aside from the moral or sentimental reasons, and considered simply as a scientific regulation in the interest of efficiency, this order will recommend itself to the vast majority of the American people.

Perhaps the best answer, however, is found in the following article written for the Sunday School Times by Mr. Howard A. Banks, who held a responsible position in the Navy Department at the time the order was issued, in which he gives the reasons for issuing this order, and gives my statement at the time. I offer this for the record, Mr. Chairman.

(The matter last referred to by Secretary Daniels is here printed in full in the record as follows:)

The Secretary was smiling across the long room. He rose to greet me with his characteristic hearty handshake. He flung in with a zest a bit of a joke—a quip with plenty of point but no sting. But once he had heard my question, "Why did you issue the wine-mess order?" his expression changed to seriousness. The new *Arizona* could not clear for action more quickly than he, and as grim as the 16-inch guns that shake their clenched fists from her gray

superstructure was the iron purpose in his eyes to keep the Navy clean and white and "dry," as he answered:

"To make it efficient—to make it the most efficient Navy in the world. My wine-mess order was a preparedness measure.

"There was a time when grog was served—when drinking to excess was not uncommon in the Navy. But the temperance sentiment, on the increase within recent years, has changed the Navy as it has changed civilian life. Secretary John D. Long, who held the Navy portfolio under McKinley, issued an order which prevented any enlisted man from drinking a glass of beer on board a warship. There remained, however, the wine mess of the officers. To be sure, it was the exception, particularly among the older officers of the Navy, to become intoxicated."

There was a temptation, however, after a strenuous day on the bridge, or on deck, or below, when wine was served at the wardroom meal, or was to be had from the individual officer's locker, to drink, and sometimes to excess.

One day, shortly after I had become Secretary, a gentleman came into the department to plead for the restoration of a young relative of his who had been dismissed from the Navy for intoxication. I showed him the record, which proved that this young officer had not only been drunk, but had at the same time made a public exhibition of himself. I explained that there was no course to be pursued but to act firmly and finally in approving the court-martial which had recommended the young officer's dismissal.

When I made it plain that the young man must inevitably pay the penalty, this gentleman protested earnestly and with much feeling against what he insisted was the injustice his young relative had received at the hands of the Navy. "Now that he is the product of your system," said my visitor, "you have turned him out in disgrace." He then went on to tell me the following story of the young man's life. Said he:

"I am a Friend, a Quaker, and the boy's father was a Quaker. He was a little shaver when his father died, and the lad came into my home, and has always been to me as a son. I never even had so much as a glass of wine in my home, and when the boy left for Annapolis to enter the Naval Academy he did not know what the taste of liquor was like. I gave him to the American Navy, pure hearted, unsullied, believing absolutely in the old-fashioned Quaker ideas in which he had been reared.

"In the seven years you have had him in the Navy you gave him wrong ideas about drinking. You taught him that it was all right for a gentleman to have his toddy. You legalized the wine mess. You had a code that made a youth feel that he was narrow minded if he turned down his glass at the table; but now that my boy has been ruined by you and your system, the Navy kicks him out and puts a stigma on him."

Much more than this he said, but this is the substance of his strictures. He was a strong man, and his feelings for the youth whose drinking had wrecked his life was pathetically deep and genuine. When he went out I could not throw off a stinging sense of justice in his accusation. All day it haunted me that in the discharge of my official duty I had been compelled to approve a decree for which a Navy practice was largely responsible.

For days I was oppressed by the thought that every young man in the Navy, many coming from homes like that described by my Quaker visitor, was subject to similar temptation.

As time went by there were more court-martials—not many, but enough to add to my profound conviction that the old Quaker had pointed me out unerringly the path of duty.

I knew very well what the issuing of the wine-mess order meant. I counted the cost. I know that many officers in the Navy, temperate, honorable, as high-minded as King Arthur's knights, without fear and without reproach, would resent it bitterly; they would feel that the order would convey a wrong impression to the world.

I realized that the order would be assailed by a multitude of people who would regard it as puritanical. I anticipated that the protest against it might reach into the Houses of Congress. But if I was at any time tempted not to take the step for any of these reasons, the reflection that every year there came into the Navy hundreds of young men, some of whom might find their undoing in indulgence, made my duty plain. If I had not issued it I could not have rested with a clear conscience unto this day.

As you know, the storm did break. Some naval officers did fear that the order was a reflection upon them. The penny-a-liners considered it a windfall

for them, and much cheap wit was indulged in at the expense of the order. The cartoonists of some big dailies also considered it food for thought. Tragic pictures they drew of Mumm's Extra Dry, with a frightened look on its face, "walking the plank," to take its doomed plunge into Davy Jones's locker from the deck of a warship, while I, depicted as a tyrant as relentless as Nero, was standing on the bridge, surrounded by weeping officers.

The approval, however, outside of these restricted circles, was general. The order was hailed with so much satisfaction by the fathers and mothers of the country that my mail was doubled and trebled for a month or two. By the time Congress had assembled, those who had thought to attack the order upon the floors of Congress found there was not a man in either House who ever raised the issue. By that time, too, the Navy officers learned that it was far from any thought of mine to reflect upon the service. I took occasion to let the public know that so far as the mass of the officers were concerned there was no need for the order. It was issued to safeguard the young men who were coming into the service. The public well understood that that was the reason and heartily approved it.

As the days went by the order increasingly won over the approval of the officers themselves. To illustrate, one of the ablest admirals of the Navy, a man whose name is known in naval circles all over the world, who is always frank and genuine, told me that he had never known such a revolution in the Navy as had been brought about by the wine-mess order. Said he:

"When you issued the order, I deeply resented it. I felt that the public would take the view that Navy officers were given over to indulgence, and that some formal action was necessary to keep them sober. That is the only reason I would have advanced against issuing it, if my advice had been sought.

"On the very day that you issued the order I had stocked up my closet with the usual wines and liquors, as was customary, to be used when I entertained guests on board ship. I had never been either a drinking man or a teetotaler, but enjoyed a glass of champagne at a dinner party, and on a frosty morning I occasionally took a nip; but I should never have carried intoxicants upon any ship I ever commanded except to entertain some guests in the same manner as they entertained me at their homes or clubs.

"I did not, therefore, like the order. But when I first read it I immediately called the steward and told him to pack up all drinkables and remove them from the ship. To me an order is an order. In my long service, whether I liked it or not, my loyalty to lawful commands has never failed.

"I have had a rare opportunity to observe the feelings of the officers. My own opinion is that the wine-mess order is the wisest thing you have done as Secretary, and if its future were committed to-day to the officers of the fleet the wine mess would never be restored."

The statement of this admiral is typical, I am convinced, of the opinion of the vast majority of the commissioned personnel of the Navy.

Bear in mind that this happened before the war in Europe; before Russia outlawed vodka and France absinthe; before Lloyd-George said that drink was a greater enemy of England than the Germans; before the King of England became an abstainer in order to set a good example for his troops; and before the Congress of the United States forbade the sale of liquor to any man wearing the United States uniform.

Even some of the flippant critics of the order evidently thought better of it since royalty has indorsed it.

The truth is that the world is at last convinced that drink destroys efficiency. Sometimes it takes a long time to do so, but the recent statement of Dr. Mayo that the medical profession would rejoice to see national prohibition is evidence of the long step forward we have taken in the temperance movement. What Dr. Mayo declares to be the sentiment of the medical profession is a complete indorsement of what a distinguished Navy physician said as far back as April, 1914. That physician was Rear Admiral William C. Braisted, Surgeon General of the Navy. If any credit is due for the issuance of that order in the month of July following it must be shared with him. It was not issued by me until, at my request, he had made a report showing its wisdom. In it he said:

"It may be stated as a fact that, except as a temporary expedient in certain cases of illness, the use of alcohol is harmful, and its abuse disastrous alike to the individual and to the human race. Its use in the service is based only upon outworn customs, and there is no authority, by law or otherwise, for its continuance, except as contained in the naval instructions."

SIMS SAID THE NAVY WAS NOT IN THE WAR IN A FIGHTING SENSE—SOME PROOF OF HIS UNFOUNDED REFLECTIONS UPON THE NAVY.

Secretary DANIELS. It was not only before the subcommittee of the Senate Naval Affairs Committee that Rear Admiral Sims reflected upon the real fighting by naval vessels and the valorous service rendered, and the courage of the brave sailors who served their countries amid graver perils than men of the sea ever faced in any previous war. In his testimony before your committee Rear Admiral Sims made the astounding statement that "There was no fighting on the sea," and "Our Navy was not in this war in a fighting sense. We were acting as motor lorries behind the Army, except that we were on the water."

He not only made this statement, which is a grave and unfounded attack upon brave officers and men of the United States Navy serving in the danger zone and either under attack or always in jeopardy of the submarine stiletto, but, even before the armistice was signed, writing to M. Egan, Esq., at Paris, in answer to reports that we were not in complete sympathy with Gen. Pershing, Admiral Sims said:

There is really no naval war going on.

He wrote that statement to a gentleman in Paris, in spite of the report made in the "Summary of the United States naval forces operating in European waters," prepared in the London naval headquarters of which Admiral Sims was the head, that "a total of 256 attacks by United States vessels occurred," and "in 183 of these cases there was definite chart evidence of a submarine in the vicinity." Disregarding the numerous reports of sighting submarines or periscopes, the record of the armed-guard section reports 227 encounters of armed American merchant ships with submarines, in 193 of which the attacks were successfully combated. Thirty-four U-boats were reported damaged by armed-guard gunfire, of which there was evidence that several were sunk. Of the 227 encounters 44 were surface engagements, some of them long continued gunfire contests. The crews of our destroyers and patrol craft, constantly hunting and often attacking submarines, thought they were fighting, and every ship that passed through the danger zone was always ready for action. All the world, except Rear Admiral Sims, thought the Navy was engaged in war, and in a war where the sea was infested with more dangers, and more insidious ones, than was ever known before. If he had made no other statements inviting the condemnation of the American people this one alone would have insured not only their rebuke but their indignation as well.

In refutation of this statement which does gross injustice to the American Navy, I append a brief and incomplete statement of examples proving that the Navy was in the war "in a fighting sense":

ARMED GUARDS ON MERCHANT VESSELS.

Campana.—Chief Gunner's Mate James Delaney commanding armed guard. Attacked August 6, 1917, by German U-61, a large-type submarine with powerful guns that outranged the *Campana*'s. The *Campana* fought the U-boat 4 hours and 10 minutes, until ammunition was practically exhausted. The U-boat fired over 400 shots; the *Campana* 170. The German captain told Delaney this was the longest gunfire contest he had ever heard of between any ship and

submarine, and that he must take him and the master of the *Campana* to Germany as prisoners to prove that he had had to expend so much ammunition to "get" a single merchantman.

J. L. Luckenbach.—Chief Master at Arms J. B. Trautner commanding armed guard. Attacked 200 miles off French coast October 19, 1917, fought the submarine 4 hours. Early in the engagement a shell from the submarine landed on the forward deck, exploded in gun crew's quarters, started a fire and burst the fire main; in a few moments another shell struck the quartermaster's room. A shell landing near the stern exploded and put the after gun out of commission, but the crew kept up the firing from forward guns. There was a rain of shells, shrapnel falling all around the deck. Two shots landed on the port side forward, striking the oiler's room and putting a large hole in the side. Another landed in the petty officers' messroom, wounding a fireman and a mess boy. One shot passed through the weather screen, landed on the deck in the cargo and exploded. A naval gunner, hit by shrapnel, was seriously wounded. One of the ship's crew who was carrying ammunition forward was hit. A shell exploded in the engine room, wounding the first and third engineers and two oilers and putting the engine out of commission. The submarine fired 228 times, scoring nine clean hits. At 8 o'clock the *Luckenbach* had sent out an S O S call, stating she was being gunned. An American destroyer, a considerable distance away, signalled that she was coming to her assistance. This was the *Nicholson*. Asked how long before she could arrive, the *Nicholson* answered "Two hours." "Too late; look out for boats," radioed the *Luckenbach*. "Don't surrender," said the *Nicholson*. "Never," replied the *Luckenbach*. And though swept by shells, hit time and again and disabled, the ship held out until the destroyer arrived.

Moreni.—Chief Gunner's Mate Andrew Copasski commanding armed guard, attacked June 12, 1917, off Spanish coast. Fought approximately three hours. A shell exploded in gasoline tank, setting the ship on fire. Another shot tore away the steering gear and the ship, beyond control, sailed around in a circle, but the naval gunners kept up the fight until almost the entire vessel was in flames. One man of the merchant crew was killed, one of the merchant crew and one man of the armed guard wounded. During the fight, which lasted over two hours, the *Moreni* fired 150 shots, the submarine about 200. The ship was hit 45 times. A Spanish steamer came up before the submarine left and picked up the survivors. "The submarine called the boats alongside," says the armed guard commander, "congratulated us and told us it was the best fight he had ever seen a merchant ship put up."

These armed guards repulsed scores of attacks, saving their ships, and in not a few instances badly damaging the submarines. Of the 284 ships for which we furnished armed guards, only 34 were sunk by enemy action.

Navajo.—H. L. Ham, chief boatswain's mate, commanding armed guard. In engagement with submarine off Cape La Hogue, France, July 4, 1917, U-boat was reported hit twice, the armed guard's report stating: "The 27th shot struck the submarine just forward of the conning tower, where the ammunition hoist was located, causing an explosion on board the submarine which was plainly heard on the *Navajo*. Flame and gray smoke shot up in the air. The men who were on deck at the guns and had not jumped overboard ran aft. The submarine then canted forward at almost 40 degrees and the propeller could be seen lashing the air. Nobody was seen coming up through the coning tower and jumping into the sea, nor were any survivors seen."

Silver Shell.—William J. Clark, chief turret captain, commanding armed guard. Engagement with submarine in Gulf of Lyons, May 30, 1917, lasted an hour and a half. Both ship's captain and commander of armed guard were convinced that U-boat was sunk. The last shell fired, they stated, hit the submarine, "her bows seemed to raise up, as though there had been an explosion in her, and then she plunged down with her stern up at an angle of 45 degrees." There was not time, the report stated, for the submarine's crew, who were on deck, to get inside before she sank.

Borinquen.—Thomas J. Beerman commanding armed guard. Encounter with U-boat in the Bay of Biscay, October 30, 1917, in which two direct hits were scored against the submarine, which the gunners and crew were convinced was sunk. The commander of the armed guard reported: "The submarine was getting under way, headed for the ship, in the effort to get under the bearings of the after gun. The captain of the *Borinquen* swung the ship around, plac-

ing the submarine directly astern of the ship and in the trough of the sea. The second shot carried away the conning tower of the submarine, which I saw myself. The third shot also hit the submarine, and I saw the explosion which was very distinct. The submarine appeared to stop dead in the trough of the sea after this shot. The last seen of the submarine she was going down on swell, listed to port, with her bow sticking in air and her stern down. She was going down in an upright position."

UNITED STATES SUBMARINE CHASERS IN ATTACK ON DURAZZO

One of the most notable and successful naval actions, after this country entered the war, was the attack on the Austrian naval base at Durazzo, October 2, 1918. In this operation a flotilla of American submarine chasers, under command of Capt. Charles P. Nelson and Lieut. Commander E. H. Bastedo, took a prominent part, leading the way and clearing the path of mines, sinking one submarine and damaging and apparently destroying another U-boat, screening larger ships from torpedo attack, going to the aid of a British cruiser which was torpedoed, and taking under escort an enemy hospital ship, all this under heavy fire during bombardment from the Austrian forts.

The British force commander, in a dispatch forwarded by the British Admiralty to Admiral Sims, wrote:

I am most grateful for the valuable service rendered by 12 submarine chasers under Capt. Nelson, United States Navy, and Lieut. Commander Bastedo, United States Navy, which I took the liberty of employing in an operation against Durazzo on October 2. They screened heavy ships during the bombardments under enemy fire; also, apparently destroyed definitely one submarine which torpedoed H. M. S. *Weymouth*, and damaged and probably destroyed another submarine. During the return voyage they assisted in screening H. M. S. *Weymouth*, and in escorting enemy hospital ship which was being brought in for examination. Their conduct throughout was beyond praise. They all returned safely without casualties. They thoroughly enjoyed themselves.

A dispatch to Admiral Sims from Rome stated:

Italian naval general staff expresses highest appreciation of useful and efficient work performed by United States chasers in protecting major naval vessels during action against Durazzo; also, vivid admiration of their brilliant and clever operations which resulted in sinking two enemy submarines.

ATTACKS BY UNITED STATES NAVAL VESSELS IN EUROPEAN WATERS.

"A total of 256 attacks by United States vessels occurred," says the "Summary of United States naval forces operating in European waters," compiled at Admiral Sims's headquarters in London. Below are given a few examples of such attacks on submarines. These show where our men were meeting perils and meeting them bravely. I offer them for the record.

(The matter last referred to by the witness is here printed in full in the record as follows:)

Fanning, Lieut. A. S. Carpender, commanding, assisted by *Nicholson*: While escorting convoy, at 4.10 p. m., November 17, 1917, Coxswain David D. Loomis, lookout of the *Fanning*, sighted small periscope; *Fanning* headed for the spot and three minutes later dropped depth charge. *Nicholson* also speeded across and dropped another depth charge. At that moment the submarine's conning tower appeared on the surface between the *Nicholson* and the convoy, and the *Nicholson*

fired three shots from her stern gun. The *Nicholson* cleared; the *Fanning* headed for the U-boat, firing from the bow gun. After the third shot the crew of the submarine all came on deck and held up their hands, surrendering at 4.20 p. m. The *Fanning* approached to pick up the prisoners, both destroyers keeping their batteries trained on the boat. The German crew, after surrendering, scuttled their craft. A line was got to the submarine, but in a few minutes she sank, and the crew jumped into the water and swam to the *Fanning*. Though they wore life-preservers, a number of them were exhausted when they reached the destroyer. One could not even hold the line thrown him. Chief Pharmacist's Mate Elmer Harwell and Coxswain Francis G. Conner jumped overboard and secured a line under his arms. He was hauled aboard and every effort made to resuscitate him, but he died in a few minutes. The 4 officers and 35 men of the submarine were made prisoners. The submarine was discovered to be the U-58.

The British commander in chief, Admiral Bayly, under whom the destroyers were operating, commended them in the highest terms, and the British Admiralty stated that, "In their lordships' opinion, the whole engagement of the *Fanning* with the submarine U-58 reflects credit on the discipline and the training of the United States flotillas. The whole affair shows that the *Fanning* is a man-of-war in the true sense of the word. After the depth charge had exploded the submarine was rendered unmanageable and helpless, and had the *Fanning* not been worked with great ability and immediate correct decision she would not only have failed to sink the submarine, but we would have lost the steamship *Welshman* and probably one other convoy."

O'Brien, Lieut. Commander C. A. Blakely, commanding. Had four engagements with submarines in a few months. While escorting steamship *Elysia*, 12 miles south of Ballycotton Light, June 16, 1917, periscope appeared; the O'Brien speeded to the spot; dropped depth bomb; periscope disappeared; oil and bubbles rose to the surface, and big oil slick covered the spot, and was observed long afterwards by British sloop and destroyer. Admiralty charts showed the submarine that was operating in that vicinity disappeared; O'Brien only allied craft that reported engaging it. O'Brien also repulsed submarine which attacked the steamship *Belyic*. Went to rescue of the steamship *Craymore*, which was torpedoed, and assisted in getting her 150 miles to port. Rescued crew of British quarantine ship *Arbutus*, which was torpedoed and sunk. Fired upon and repulsed submarine which was sinking French fishing boats; drove him from larger ship and rescued fishing boat's crew. British Government recommended Lieut. Commander Blakely for distinguished service order for successful engagements with submarines.

Conyngnam, Commander A. W. Johnson. On October 19, 1917, while escorting a large merchant convoy, the *Conyngnam* signaled His Majesty's ship *Orama* and suggested the convoy change its course, as a submarine was reported ahead. This suggestion was not followed, and shortly thereafter a torpedo crossed the *Clan Lindsay's* bow and struck the *Orama* on the port side. The *Orama* immediately listed to port and began to sink by the bow. The *Conyngnam* dispersed the convoy, sounded general quarters, and headed at full speed across the *Orama's* bow, circling the convoy. Shortly thereafter a periscope was seen about 1 foot above the water, but it submerged almost immediately, though the wake was plainly visible.

The *Conyngnam* dropped depth charge over the wake and an explosion resulted, large quantities of discolored water were seen to rise in the air, and a number of officers and crew made out a quantity of wreckage, one piece of which appeared to have been a wireless mast of the submarine. The crew and passengers of the *Orama* abandoned ship, and were picked up by the *Conyngnam* and the *Jacob Jones*, which took the survivors to Queenstown. The British Admiralty expressed their "high appreciation" of the action of the *Conyngnam*, and expressed the opinion that the submarine would probably have sunk another ship had it not been for Capt. Johnson's quick and correct decision. The *Jacob Jones* (Lieut. Commander D. W. Bagley) was also highly commended for the fine feat of seamanship displayed in rescuing survivors from the *Orama* at night when the ship was sinking.

Allen, Commander H. D. Cooke. Engagement with submarine February 2, 1918. Commended in letter from Admiral Sims's headquarters, stating: "Your quick action saved the convoy, and it is believed that the enemy submarine was severely damaged, or even sunk. Such efficient performance of duty is in keeping with the traditions of the United States naval service."

Submarine chasers.—Designed February, 1917. Contracts placed for 355 in March, first one launched in May, completed in June. Additional contracts placed for 92. Delivered before the armistice, 414 (pp. 22 to 32).

Submarines.—At the outbreak of war there were under construction 31 of previous programs and 30 of the three-year program; contracts were placed for 38 more in July, 1917, and for 24 in August, 1918. Forty were completed and commissioned before the armistice (pp. 33 to 39).

Eagle boats.—In the fall of 1917, when listening devices had been developed to a point which promised practical results, a design of a patrol vessel was prepared to give longer radius and more seaworthiness than sub. chasers, and at the same time to be more suitable for quick production in large numbers than the destroyer. Contract was placed for 100 of these vessels in January, 1918, with the Ford Motor Co., which undertook to erect a plant for their construction. The plant was completed and in operation in about 100 days, and the first Eagle boat was completed and in commission in five and one-half months thereafter; that is, in October, 1918. Three were delivered prior to the armistice, after which a portion of the contract was canceled. Even under postwar conditions this plant demonstrated by the delivery of 23 boats in one month that, had the war continued, it could have made deliveries at the rate of 25 per month, which was the figure on which the department had based its plans when the project was first inaugurated (pp. 40 to 52).

Seagoing mine sweepers.—Designed in April, 1917. Contracts for 24 placed in May; for 12 in July; and for 18 in January, 1918. First one delivered in May, 1918. Seventeen were delivered before the armistice (pp. 53 to 66).

Production of seaplanes.—The first requirement upon our entry into the war was training planes, and orders were at once placed for 140, followed at short intervals by orders for 429. These were delivered as rapidly as they were needed for training. In September it was decided that the United States Navy should establish and operate 15 patrol stations abroad. In October orders were placed for 1,420 seaplanes of two types. Altogether, orders were placed for 2,669 seaplanes of these two types or modifications thereof. Of this number 1,611 were delivered and 388 were shipped abroad for service at our patrol stations (pp. 67 to 88).

Design and construction of the NC flying boats.—In September, 1917, after the return to the United States of a commission which had been investigating types of seaplanes and flying boats in use by the Allies, it was found that no type of sufficient cruising radius to perform efficiently many useful military functions had yet been successfully developed. The bureau at once undertook the development of such a design with the ability to cross the Atlantic under its own power as the desideratum to be aimed at. After extended investigations and much detail experimental work, the first of these boats, *NC-1*, took the air on October 4, 1918. The first successful trans-Atlantic air voyage, accomplished by the *NC-4* in the spring of 1919, is now a matter of history.

Naval aircraft factory.—By July, 1917, it was apparent that it would be necessary for the Navy Department to supplement private resources for the construction of aircraft, and on July 27 orders were issued for the erection of a factory at the navy yard, Philadelphia, Pa. The factory was completed in 110 days, but in the meantime, October 17, work was started on its first order for 50 flying boats. The factory was subsequently enlarged and used as an assembly shop, obtaining parts of planes from factories of all characters throughout the country. At the time of the armistice there were 3,740 employees in the aircraft factory. The output up to the armistice was 287 flying boats (pp. 107 to 112).

Air ships.—During 1915 and 1916, experimental design and construction work was prosecuted. In January, 1917, a new design was completed, from which it had been intended to build two ships, but after breaking diplomatic relations, orders were issued to build 16. Despite the fact that at that date there were absolutely no developed building facilities for the construction of lighter-than-air craft in this country, the first ship was completed in May and the remaining 15 within a year. An improved and enlarged type was developed and orders for 30 were placed during 1918 and the first was delivered in September, 1918 (pp. 115 to 132).

Conversion and repair of vessels taken over by the Navy during the war.—This work was continuous and arduous from before the declaration of war until after the armistice and ranged from complete rebuilding of the largest vessel to fit them for special war purposes, such as conversion of the *Leviathan*, the biggest vessel afloat, for use as a transport, down to the installation of guns

18 in the following January, when the limited number of yards, in which capacity for this work had been allocated, were able to put additional ones in hand.

7. As will always be the case in a new and rapidly developing field, such as aeronautics, it was not possible before the war to have on hand or under production a large program of aircraft, which would have been obsolete when the emergency arose. But the bureau, in keeping its designs up to date, was fully prepared, with the result that in February, 1917, immediately after breaking diplomatic relations, orders were placed for 16 small patrol airships and in April for a large program of the most efficient training type of seaplanes. The same policy permitted later—October, 1917—of placing orders for a large program of patrol seaplanes. The bureau's investigations of manufacturing facilities led it in July to start the construction of a naval aircraft factory at Philadelphia, and this factory subsequently permitted the Navy to meet all of its obligations in connection with the production of seaplanes.

8. Based on reports from abroad, the bureau undertook, in the latter part of 1916, the development of a ship protective device against mines. On our entry into the war, the bureau at once took steps to obtain from the British Navy complete plans of the device, known as a paravane, which they had already fully developed. Manufacturing facilities were developed in private plants, and large orders were placed during the summer. These paravanes, as soon as delivered, were fitted not only to naval vessels but also to many vessels of our merchant marine.

9. Gas masks had never before this war been used on board ship, but developments abroad before our entry into the war indicated their desirability, and the bureau's prior investigations enabled it on May 7, 1917, to place the first large order for a device not previously produced in this country.

10. The bureau was engaged, both before and after our declaration of war, in many other activities, too numerous to mention in detail, but all of them of importance to the Navy's contribution to the energetic prosecution of the war—such as the arming of merchant vessels; the conversion of all types of mercantile and pleasure craft to war purposes; the preparation of the fleet of mine planters and carriers for the execution of the great northern barrage project; the establishment of a national salvage service; the experimental development and practical application of marine camouflage; the arrangements for training officers, enlisted, and civil personnel for carrying on the bureau's expanding activities; the planning of extensions of shore establishments for the repair and construction of vessels; the building up of huge reserves of material of every variety under the bureau's cognizance; and last, but by no means least, the evolving and negotiating new forms of contracts suitable for the exigencies of war, but at the same time insuring the protection of the financial interests of the country, in order that the necessary funds might be spent with the rapidity essential to great and accelerated production while guarding against fraud, waste, and extravagance.

D. W. TAYLOR.

GENERAL SUMMARY.

Three-year building program.—Six months before our entry into the war, Congress authorized the three-year building program, involving the construction of 156 vessels, and estimated to cost more than \$500,000,000. During this period contracts were placed for all vessels authorized to be begun at once. Just before and after our entry into the war, one of the bureau's largest undertakings was to plan for and make the necessary adjustments in this program for expediting work on some vessels, continuing on others and stopping entirely on still others (pp. 8 to 10).

Destroyers.—Designed 1916. Modified September, 1917. First war contracts for 24 in March, 1917; additional contracts placed in May, June, July, August, and October, 1917, and January and July, 1918. Total number in program, 275. First delivery, April, 1918. Total deliveries before the armistice, 38. Average time for construction, less than half of prewar figures. A new plant for construction was begun in October, 1917, and first boat was delivered from this plant in 13 months, and in approximately two years 30 boats were completed by the plant (pp. 11 to 21).

guarding against fraud. I append a comprehensive statement with a summary prepared by Admiral Taylor which, he said, the future historian will find essential when he comes to write the pages of the efficiency of naval vessels during the World War.

Mr. Chairman, I desire to just present all this statement in the record.

(The matter referred to is here printed in full in the record, as follows:)

NAVY DEPARTMENT.
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., May 10, 1920.

From: The Bureau of Construction and Repair.

To: The Secretary of the Navy.

Subject: War activities of the Bureau of Construction and Repair.

Inclosures: As per attached list.

1. In submitting an account of its principal activities concerned with the World War, as given briefly in the accompanying inclosures, the bureau desires to call attention especially to the work accomplished or inaugurated before our entry into the war.

2. For more than a year before the rupture of diplomatic relations with Germany the Bureau of Construction and Repair had been working at high pressure and accomplished in that period what is believed to have been an unprecedented task for any technical organization by completing all of the necessary plans and specifications for the great three-year building program authorized on August 29, 1916. Although this program involved the preparation of nine complete new designs, of which those for the battleships, battle cruisers, scouts, and destroyers set entirely new standards for vessels of their class, the bureau's work was complete in all essential respects at the date of the passage of the bill, thereby permitting the placing of contracts immediately for 4 battleships, 4 battle cruisers, 4 scout cruisers, 20 destroyers, 27 submarines (two types), 1 gunboat, 1 hospital ship, 1 ammunition ship, and 1 fuel ship.

3. One special feature in connection with the designs of the capital ships of this program deserves special mention. During 1914, 1915, and 1916 there were carried on a long and elaborate series of experiments to develop the most efficient type of protection against underwater damage from mine or torpedo, which resulted in the incorporation in the designs of these ships of a type of construction which is believed to be more successful than anything yet evolved abroad and to render these ships safe from any form of underwater attack yet devised. The subsequent developments in the war have indicated that the time, money, and effort devoted to this subject have given our post-war Navy a unique position in this essential.

4. Before our entry into the war developments abroad indicated a greatly increased importance for the destroyer, and the bureau had accordingly been making a quiet survey of probable building capacity and tentative plans for a great expansion of existing facilities. The first active step in this direction was taken in March, immediately after the passage of the naval bill of March 3, 1917, making the necessary funds available, when orders were placed for 24 destroyers. From that date on additional orders were placed as rapidly as new building facilities could be arranged for; that is, for 6 in May, 6 in June, 29 in July, 26 in August, and 150 in October.

5. In its general survey of the situation the bureau had reached the conclusion that there was considerable military value in a comparatively small type of wooden-hull vessel which could be produced in boat and launch building yards, whose capacity would not be required for other items of a war program by any department of the Government. Immediately after the break in diplomatic relations, therefore, the bureau put in hand at once the preparation for the design of such a vessel, and orders were placed in March, 1917, before our entry into the war, for 355 of these vessels, which under the name of subchasers subsequently performed such sterling service both at home and abroad.

6. Even during the press of work on the three-year program in 1916 the bureau had foreseen the necessity in case of war of a sturdy form of fleet tender and seagoing mine sweeper, and had accordingly prepared a preliminary design for such a vessel. Immediately on our declaration of war this design was completed, and orders for 24 were placed in May, 1917, for 12 in July, and for

been obsolete when the emergency arose. I may say, Mr. Chairman, that I had a call this week from Mr. Caproni, who made the great airship which gave so much credit to the Italians, and he showed me plans and designs of other airships that the Italians are going to build, and they are going to use Liberty motors in all of them—the engine that we devised during the war. There is no engine like it in the world, and it was one of the great contributions to the war in which the Navy had some part. But the bureau, in keeping its designs up to date, was fully prepared, with the result that in February, 1917, immediately after breaking diplomatic relations, orders were placed for 16 small patrol airships, and in April for a large program of the most efficient training type of seaplanes. The same policy permitted later, October, 1917, of placing orders for a large program of patrol seaplanes. The bureau's investigations of manufacturing facilities led it in July to start the construction of naval aircraft factory at Philadelphia, and this factory subsequently permitted the Navy to meet all of its obligations in connection with the production of seaplanes.

No building has been built—or few buildings have been built—in the world of that magnitude in so short a time as the naval air factory in Philadelphia, and it did great work in the war.

Based on reports from abroad, the bureau undertook, in the latter part of 1916, the development of a ship-protective device against mines. On our entry into the war the bureau at once took steps to obtain from the British Navy complete plans of the device, known as a paravane, which they had already fully developed. Manufacturing facilities were developed in private plants and large orders were placed during the summer. These paravanes, as soon as delivered, were fitted not only to naval vessels but also to many vessels of our merchant marine.

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The bureau was engaged, both before and after our declaration of war, in many other activities too numerous to mention in detail, but all of them of importance to the Navy's contribution to the energetic prosecution of the war, such as the arming of merchant vessels, the conversion of all types of mercantile and pleasure craft, to war purposes, the preparation of the fleet of mine planters and carriers for the execution of the great northern barrage project, the establishment of a national salvage service; the experimental development and practical application of marine camouflage; the arrangements for training officers, enlisted, and civil personnel for carrying on the bureau's expanding activities; the planning of extensions of shore establishments for the repair and construction of vessels, the building up of huge reserves of material of every variety under the bureau's cognizance; and last, but by no means least, the evolving and negotiating of new forms of contracts suitable for the exigencies of war, but at the same time insuring the protection of the financial interests of the country in order that the necessary funds might be spent with the rapidity essential to great and accelerated production while

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As will always be the case in a new and rapidly-developing field, such as aeronautics, it was not possible before the war to have on hand or under production a large program of aircraft, which would have been obsolete when the emergency arose. I wish to emphasize that—that it was not possible before the war to have on hand or under production a large program of aircraft, which would have

with the limited number of effective vessels left in home waters—for we had sent all but a few of our destroyers to Europe—to sink the enemy submarines and end their depredations, has been previously set forth by Senator Lodge, a leading member of the Naval Affairs Committee, in a speech soon after the first submarines appeared, in June, when Senator Lodge said:

One or two submarines have appeared suddenly on our coast, as was to be anticipated. In my judgment, we are doing all that can be done. I have taken the pains to go to the department, where everything has been laid before the members of the Naval Affairs Committee who cared to investigate the subject, and I am entirely satisfied that they are doing everything that is possible. But the chase of the submarine is something like searching for the needle in the haystack. You can not tell in which particular wisp of hay it will come to the surface; but that the defense will be effective I have no sort of question.

* * * * *

We have a patrol along the coast which is composed chiefly of what is known as the Life-Saving Service, or the Coast Guard, as it is now known. We also have an organized system for procuring information from fishermen and others on the coast extending from Maine to the Gulf. These sources of information were organized and in operation through the Navy Department at least two years before we entered the war, so I believe that so far as our own coasts are concerned the chances of a base there are almost negligible.

* * * * *

I did not rise to go into the details to describe to you the different naval districts of the country and what has been done in each one of them, but simply to tell you what my own opinion is after having examined all the arrangements with the utmost care of which I was capable and with the most intense interest and give my word for what it is worth, that in my judgment the Navy and the Navy Department, the Secretary and Assistant Secretary, and all the officers, the Chief of Staff, and every head of bureau has done everything that human foresight could suggest.

WAR CONSTRUCTION PROGRAM EMBRACED 1,000 VESSELS—1,597 VESSELS CONVERTED FOR WAR PURPOSES.

The war construction program of the Navy, including the “three-year program” authorized in the naval appropriation bill of August 28, 1916, comprised approximately a thousand vessels, nearly three times as many as were in the Navy at the time war was declared. This was in addition to the 1,547 vessels which were converted for naval purposes.

This will convey some idea of the magnitude of the work done by the Bureau of Construction and Repair and the Navy Department under the direction and leadership of Admiral David W. Taylor, esteemed both in this country and abroad as a naval constructor without a superior in the world. The following is a brief summary of some of the outstanding war activities under the direction of Admiral Taylor:

For more than a year before the rupture of diplomatic relations with Germany the Bureau of Construction and Repair had been working at high pressure and accomplished in that period what is believed to have been an unprecedented task for any technical organization by completing all of the necessary plans and specifications for the great three-year building program authorized on August 29, 1916. Although this program involved the preparation of nine complete new designs, of which those for the battleships, battle cruisers, scouts, and destroyers set entirely new standards for vessels of their

enlarge old ones, and build new forging and engine plants, so that more destroyers could be produced. I kept in touch every day with the head of the Naval Affairs Committee of the House and of the Naval Affairs Committee of the Senate, and in cooperation with them we were moving with all possible expedition; and when they assured me that this bill was certain to pass, as I knew that I was justified in their representations, which proved to be true, as they always did during the war, Congress was asked for a large additional appropriation for this and the construction of destroyers. All the plans were prepared and the work under way before Congress finally acted. The bill appropriating \$350,000,000 was passed October 6, 1917; the contracts were signed immediately and all records broken in pushing the work. An example of this was the building at Squantum, Mass., of the largest plant in the world devoted exclusively to destroyers, which was begun in October, immediately after it was authorized by Congress, and in April, 1918, six months later, the keels of five destroyers were laid there in one day. Mr. Chairman, that construction, which proceeded in the worst weather ever seen, was a tribute to the genius of American initiative and ability to do any big thing called upon to do. I will have the pictures here to show you of that work, men working in the sleet and in the snow; Mr. ———, of the Bethlehem Steel Co., and his associates working with naval officers and civilian mechanics in such a snowstorm and in such cold as I did not think any men could work in. I want you to see those pictures.

We broke all records in destroyer construction. Before the war the shipyards required from 20 months to 2 years to complete a vessel of this type. We reduced this time more than half, and in individual cases this pace was exceeded. At Mare Island Navy Yard the destroyer *Ward* was launched in 17½ days after the keel was laid, a world's record never equaled. I will have here a book of photographs showing each day's progress on this vessel, which I would like for the committee to see. I assure you that if before this war anybody had told me it was possible I would not have believed it. We actually did the work every day.

THE CHAIRMAN. How many of these destroyers were used in the war?

Secretary DANIELS. I will take that up in my cross-examination. Senator McCumber's inquiries, which brought forth Senator Penrose's speech, indicated the extreme anxiety of the American people for the protection of our coast when German submarines were operating in American waters, sinking coastwise shipping and fishing craft. These criticisms had been answered, and the fact that the Navy Department was, and had been all along, using every effort possible with the limited number of effective vessels left in home waters—now, the charge has been made here that we kept too many ships in home waters and sent too few abroad in the early days of the war. Senator McCumber arises on the floor of the Senate and criticizes the Navy because we sent so many across that we did not have enough left here to protect us against submarines when they came over.

These criticisms had been answered, and the fact that the Navy Department was, and had been all along, using every effort possible

conclusions or decisions about the matters submitted to him. At least 150 days elapsed before even many of the preliminary contracts were awarded.

Some people in close touch with the department, assuming that the war has been costing this country and the Allies some \$100,000,000 a day, estimate that some \$15,000,000,000 or more have been expended merely to maintain a situation until the Navy Department could come to some conclusion, not to mention the losses in death and casualties on the different fronts.

therefor, in all probability postponed the end of the war at least four months.

[Penrose fixes it at three months. Admiral Sims says in all probability it was four months; so that they are very close together.]

The average loss of life per day to the Allies during the war was 3,000 men. This prolongation of the war, therefore, cost half a million lives.

Similarly, as the war cost the Allies \$100,000,000 a day, on the average, this prolongation resulted in the unnecessary expenditure of \$15,000,000,000, of which at least one-third was expended by the United States directly or loaned to the Allies.

The ouija board working across the Atlantic, or wireless communication, or telepathy, makes it exactly the same.

Did Penrose tell it to Sims or did Sims tell it to Penrose? Whose hand has been moving the ouija board around from the Sims letter back to Fiske and Fullam and all the way around to a reorganization of the Navy Department?

As for Senator Penrose's charges, the one which he and Admiral Sims both make in identical figures and almost identical words—that alleged delays cost three or four months time, the needless expenditure of \$15,000,000, and the loss of many lives—that charge has already been answered very fully, by the leading admirals of the Navy as well as myself.

His charge that "The Secretary of the Navy lost at least three months, and very likely much more, before he got started on his naval preparedness"; and that "at least 150 days elapsed before even many of the preliminary contracts were awarded," is answered fully and completely by the records of the Bureau of Construction and Repair, which I will present.

I beg you to listen to this, Mr. Chairman, as the most important statement, which fully refutes everything that Penrose and Sims have said, a statement of Admiral Taylor, in America and Europe regarded as second to no naval officer in the world. It shows that bids were invited for all destroyers and nearly all the other vessels in the "three-year program" appropriated for in the act of August 29, 1918, on the day that bill was passed; something that never happened before in the Navy; on the very day that the President signed the bill bids were awarded; that is the kind of procrastination that the Navy was guilty of; that when more money became available a number of additional destroyers were contracted for in March, 1917, just before the declaration of war; that is the kind of procrastination we employed; that within a few weeks after war was declared we had, either under construction or contracted for, every destroyer that American yards, with their then existing facilities, could build—that is, 117 of this type of vessel, more than twice as many as we previously had in the Navy.

But this was not enough, so in the summer of 1917 we worked out plans—now listen to this, Mr. Chairman—to build new shipyards,

don October 11 expressed precisely the same idea? He said, as quoted in the London Times of October 12, 1918:

Another idea was sometimes in the American mind, that the American Navy had been doing the bulk of the business over here—at least a half. That was not correct. There were about 5,000 antisubmarine craft operating day and night, and the American craft numbered 160, or 3 per cent. The figures were about the same in the Mediterranean. Again, Americans seemed to regard it as a miracle of their Navy that they had gotten a million and a half troops here in a few months and had protected them on the way. "We didn't do that," said Admiral Sims. "Great Britain did." [Cheers.]

Cheers by a British audience. The statement was not true.

She brought over two-thirds of them and escorted a half.

I do not know whether there were cheers about that, but the statement was not true.

Admiral Sims said:

We escort only one-third of the merchant vessels that come here.

And I suppose there were cheers again; but the statement was not true, as I have shown repeatedly in this testimony.

It is also worthy to note that it was at this very time that Penrose was making his speech Sims was writing to Capt. Pratt, threatening an investigation of the conduct of the war. Capt. Harris Laning's letter to Admiral Sims was written August 26, 1918, just two days after Senator Penrose made his speech. In that reply he quotes the following from the letter of Admiral Sims to Capt. Pratt, received a few days previous. Here is what Admiral Sims wrote to Capt. Pratt. [Reading:]

When the history of this war comes to be written there will be a number of features that will not be very creditable to the United States Navy. If hearings are held on the conduct of the war—

Evidently then, in his mind, having in view preferring the very charges he is preferring now; in August, 1918—

If hearings are held on the conduct of the war a number of rather disagreeable facts must inevitably be brought out.

That is the end of Admiral Sims's statement to Capt. Pratt.

The great minds, even those of politicians and admirals, and some who are both, run in the same channels is strikingly exemplified by the similarity of the allegations of Sims and Penrose. I present them in parallel columns, Mr. Chairman, because that will give you the similarity better than otherwise. [Reading:]

PENROSE.

It is easily demonstrated that the Secretary of the Navy lost at least three months, and very likely much more time, before he got started on his naval preparedness. This fleet of destroyers, which ought to have been gotten ready long before they were, are now being built, and very few of them have been turned out.

In my opinion, this is due very largely to the procrastination of the Secretary of the Navy, who for some reason or other was unable to reach

SIMS.

It can thus be said that the failure of the Navy Department to enter the war immediately and wholeheartedly cost the allied cause as a whole two and one-half million tons of shipping sunk unnecessarily. * * * The loss of this amount of shipping can also be translated into a definite prolongation of the war and unnecessary sacrifice of blood and treasure in accomplishing the victory. * * *

The loss unnecessarily of the two and a half million tons of shipping,

Either Admiral Sims is a plagiarist and appropriated his views and charges from Senator Penrose, or by the new science of mental telepathy the views of the Senator from Pennsylvania were communicated to Admiral Sims by wave lengths or some other wireless method unknown to those not familiar with occult science. Penrose comes from Pennsylvania, and Sims was appointed to the Naval Academy from Pennsylvania. Did they collaborate or exchange mental telegrams?

This mental telepathy not only went from Senator Penrose's active brain to the dome of Admiral Sims, imparting figures, but his ouija board communicated the same character of ideas and exact words to some other witnesses who have been heard by your committee. Several officers who were so obsessed by their own superior wisdom that they thought the Secretary of the Navy ought to "sign here" whenever they presented a plan they had written out have told you that I was guilty of "procrastination." Where did they get that idea and that particular word? See the speech above quoted of Senator Penrose.

You gentlemen of the committee must have been surprised at the parrotlike repetition of the word "procrastination" used by several witnesses. I confess it surprised me, for not one of them ever intimated to me that they associated that word with me. It must be plain to you now. The circuit of mental telepathy from the brain or the ouija board of the Senator from Pennsylvania is communicated by some ether waves to certain of your witnesses, and "procrastination" is repeated by the subjects of the medium. I do not know enough about spiritualism to know whether the persons acted upon know how the words are communicated to them or whether it is a sort of seventh sense. But one thing is clear now that was inexplicable before Senator Penrose's speech was exhumed from the Congressional Record, they all speak the Senator's language—figures, phrases, and all. Indeed, gentlemen of the committee, all these charges are contained in Senator Penrose's speech of August, 1918, and you might have saved thousands of reams of paper by investigating his brief accusation which his plagiarist or hypnotized successors have elaborated into many hundred thousand words.

Inasmuch as these serious and grave charges made by Senator Penrose, which I never heard of, so far as I can recall, until two or three years ago, have been buried so long in the Congressional Record, are a matter of record, and were preferred by a leading Senator during the campaign for the election of Members of Congress in 1918, I can not let them pass without giving the Senator and the committee some information which he did not possess when he made that speech. He was imposed upon by some informant who is almost as reckless in his figures as Admiral Sims was in his accusations. When the Senator has the facts he will, of course, be glad to correct his statements made upon information he will now see was not reliable.

The telepathic wireless must have been working clear across the ocean, for Sims was telling practically the same thing to Americans who were in Europe. Is it not rather a remarkable coincidence that Admiral Sims in his speech to the American newspaper men in Lon-

Congressional Record, volume 56, part 9, Sixty-fifth Congress, second session, page 10453, and is also printed again separately in the Congressional Record of August 27, 1918, under the head of "Operations of the Navy," as "Speech of Hon. Boies Penrose, of Pennsylvania, in the Senate of the United States, Saturday, August 24 (legislative day of Thursday, August 22), 1918." Senator Penrose was answering a question of Senator McCumber as to why the trawler, armed by a German U-boat, which, he said, "for more than a week has been destroying fleet after fleet of our fishing smacks," had not been captured. Here is the charge made by Senator Penrose, as set forth in the Congressional Record:

MR. PENROSE. Mr. President, I think, as a minority member of the Naval Committee, I can in part answer the Senator's inquiry. It is easily demonstrated that the Secretary of the Navy lost at least three months, and very likely much more time, before he got started on his naval preparedness. This fleet of destroyers, which ought to have been gotten ready long before they were, are now being built, and very few of them have been turned out.

In my opinion, this is due very largely to the procrastination of the Secretary of the Navy, who, for some reason or other, was unable to reach conclusions or decisions about the matters submitted to him. At least 150 days elapsed before even many of the preliminary contracts were awarded.

Some people in close touch with the department, assuming that the war has been costing this country and the Allies \$100,000,000 a day, estimate that some \$15,000,000,000 or more have been expended merely to maintain a situation until the Navy Department could come to some conclusion, not to mention the losses in deaths and casualties on the different fronts.

MR. CHAMBERLAIN. May I interrupt the Senator?

MR. PENROSE. Yes, sir.

MR. CHAMBERLAIN. Does not the Senator think it would be entirely proper to call attention to the fact that the Navy of the United States has done magnificent work in conveying the ships that bore over a million and a half of our young men to Europe, and conveyed the ships that have taken cargoes over and conveyed them on the return voyage? I do not know much about the Navy, I am frank to say, but I know the Navy has done most excellent work.

MR. McCUMBER. Will the Senator allow me to ask: Have we not one little warship on the Atlantic coast that can do battle with this trawler?

MR. CHAMBERLAIN. The Senator puts that question to me?

MR. McCUMBER. Yes.

MR. CHAMBERLAIN. It may be that when the German submarine commenced its operations here we might not have had any ships along this coast, because it is straining the resources of the Government to take our troops safely to Europe.

MR. McCUMBER. I can take the Senator down the coast and show him a dozen warships on our coast.

MR. CHAMBERLAIN. I am not particularly well advised about the Navy. It does not come under our jurisdiction; and the good Lord knows it takes all one's time to try to help out the military situation, but I think they ought to be given credit for the splendid work they have done in getting our men across without the loss of a single troopship.

MR. McCUMBER. What has that to do in the matter of allowing a trawler here that has been captured and can not go over 10 to 12 knots per hour to destroy our fishing fleets all along the Atlantic coast?

MR. PENROSE. Mr. President, while I am on my feet, since the chairman of the committee has raised the point, my information is that the troops have been carried largely in British vessels.

MR. CHAMBERLAIN. I am speaking only of convoys.

MR. PENROSE. The convoys have been largely, though not entirely, British vessels.

I saw in the paper the other day—I do not know in any way how accurate it is—that the American vessels in the Atlantic waters are a very small percentage of the total allied fleet.

That ends what appeared in the Congressional Record.

NAVAL INVESTIGATION.

TUESDAY, MAY 18, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235 Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, and Trammell.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Mr. Chairman, when Admiral Sims first appeared before your committee in the medal awards hearings he was asked what had brought about the investigation, and he answered that he did "not know anything about these things," but had "just sized it up that there was some political flavor about it." This appears on page 361 of the medal awards hearings, as follows:

Senator PITTMAN. I am sorry, as I was in hopes that we could dispose of this whole matter in the Senate by referring this whole investigation to the board. I would like to see it all go there.

Admiral SIMS. It is there now.

Senator PITTMAN. They are investigating now, are they not, there?

Admiral SIMS. Search me. I do not know. [Laughter.]

Senator PITTMAN. I do not myself.

Admiral SIMS. I do not myself.

Senator PITTMAN. I want to state that I protested against this useless investigation.

Admiral SIMS. Of course, being a military man, I do not know anything about these things. I just sized it up that there was some political flavor about it.

When Admiral Sims appeared before your committee and made the grave charge that the Navy Department's delay had cost \$15,000,000,000, lengthened the war months, and other wild and preposterous statements, I thought he was voicing his own vivid imagination and that these figures were original with him. Since I gave an exhaustive and complete answer to this charge, which every responsible admiral in the Navy has sworn was without foundation, I have been informed that it was not Admiral Sims who originated this charge, but that it was first made in the Senate on August 24, 1918, by Senator Penrose, of Pennsylvania. It attracted no attention whatever then, and I do not recall seeing any reference to it in the press. Certainly if my attention had been called to it, the answer would have been as easy then as now. The original charges, amplified, and repeated by Admiral Sims in his testimony before your committee, are contained in Senator Penrose's speech, and will be found in the

The records of valor of sailors and marines stirred the blood during the World War and have given to the world admiration for the men of the American Navy, who showed by the courage thus displayed that it is a reflection upon the Navy to minimize its service because the high sea fleet of the enemy dared not try conclusions with the capital ships of the allied forces, because American participation gave such preponderating strength to the allied fleet that the Germans dared not repeat the Jutland Battle. That is all that I have brought up this afternoon, Mr. Chairman.

The CHAIRMAN. Very well; the committee will stand adjourned until 10 o'clock to-morrow morning.

(Thereupon, at 4 o'clock p. m., the subcommittee adjourned until to-morrow, Tuesday, May 18, 1920, at 10 o'clock a. m.)

The ship was making only 12 knots at the time, owing to damaged propeller, and the submarine no doubt misjudged her speed, which ordinarily would have been at least 16 knots. About this time a submarine was sighted and reported by a patrol in this vicinity.

UNITED STATES FORCES OPERATING FROM GIBRALTAR.

A number of engagements with enemy submarines by United States naval vessels based on Gibraltar were reported, including the following:

At 5.33 p. m., while on Mediterranean convoy duty on May 8, 1918, in latitude 38° 06' N., longitude 3° 3' E., the *Lydonia* sighted the wake of a torpedo, which later torpedoed the British steamship *Ingleside*. H. M. S. *Basilisk* and *Lydonia* dropped a barrage of depth charges. The British Admiralty have credited the sinking of this submarine to the *Basilisk* and *Lydonia*.

On May 15, 1918, the *Wheeling*, *Surveyor*, and *Venita*, while escorting a Mediterranean convoy, sighted the track of a torpedo, which torpedoed a merchant ship of the convoy in latitude 36° 03' N., longitude 1° 47' W. The wake of the submarine could be seen. A depth charge attack was made. The British Admiralty credited the sinking of this submarine to these three escort ships, the squadron commander reported.

On September 5, 1918, at 1.04 a. m., the *Chester*, while on ocean escort, sighted a submarine close aboard on starboard bow. After attempting to ram submarine, attacked her with depth charges. Up to the present time no results of this attack have been brought to light. The commanding officer of the *Chester* is of the opinion that the last depth charge may have damaged the submarine.

On September 9, 1918, at 7 p. m., convoy GGA-54 was attacked by enemy submarine in latitude 38° 11' N., longitude 4° 58' E. British steamship *Arabis* torpedoed and sunk. *Paducah* attacked with depth charges, and is reported to have damaged submarine.

U. S. submarine *AL-2* (Lieut. P. F. Foster, commanding): Returning from patrol July 10, 1918, U. S. submarine *AL-2* sighted a suspicious object and changed course to investigate. Ten minutes later a terrific explosion occurred under starboard quarter of *AL-2*, putting out lights, throwing off their feet men in engine room, and doing minor damage to various auxiliaries. When splash from explosion (presumably that of a torpedo) subsided the periscope of a submarine was seen in the slick. Enemy was observed heading across stern of the *AL-2*, evidently injured and attempting to get to the surface. The *AL-2* put its rudder over and maneuvered to ram. As it was seen that the only chance to get the U-boat was to ram it submerged, *AL-2* executed a crash drive. The U-boat, apparently deciding that its only chance to avoid ramming was to pass under the *AL-2*, descended. *AL-2* passed immediately over the U-boat, missing it by only a few feet. The crash dive carried *AL-2* to a depth of 100 feet, but fortunately the explosion had not seriously damaged her hull. By her listening devices *AL-2* could hear the propellers of the U-boat, which were running at highest speed, indicating that it was again attempting to reach the surface. *AL-2* swung around and started after U-boat, maintaining position directly astern of the enemy. At this time the propellers of another U-boat, running at slow speed and in a different direction, were heard. A few minutes later the U-boat the *AL-2* was pursuing stopped and was heard no more. It had not reached the surface. Shortly after the other U-boat began calling its mate insistently on its underwater signaling apparatus, but received no answer. *AL-2* remained in the vicinity to make certain the boat it was pursuing did not escape and then changed its course and headed for the second U-boat, but was unable to overtake it. After a short pursuit *AL-2* returned to position where first U-boat had stopped, searched the surface by periscope, and maintained careful listening patrol for several hours, until 11 p. m. As there was no trace of U-boat, *AL-2* returned to port.

The British chart showed that the *UB-65*, which was charged as operating in that locality, was missing, and, though the U-boat was damaged by its own torpedo, the crash dive and maneuvers of the American submarine, preventing the enemy from getting to the surface, were regarded as so largely responsible for its destruction that the British Admiralty credited the *AL-2* with the sinking, with the indorsement: "U. S. submarine *AL-2*, Lieut. P. F. Foster, July 10, 1918: Known sunk, *UB-65*" (Admiralty class).

She quickly submerged; the *Reid* estimated her probable location and dropped a depth bomb. A large oil slick appeared and two more charges were dropped. The *Isabel*, which was near by, also dropped a depth charge. As an oil slick 300 yards long by 50 yards broad appeared, it was concluded the submarine was either sunk or seriously damaged.

United States destroyer *Stewart* (Lieut. H. S. Halship) had an encounter with enemy submarine April 23, 1918, which the British Admiralty pronounced a successful engagement, with the indorsement that the submarine was "probably seriously damaged."

The *Christabel* (Lieut. Commander M. B. McCord) on May 21, while escorting a northbound convoy, saw a wake about 300 yards distant and steamed across it, dropping depth charges. Three hours later a submarine was seen near the convoy. The *Christabel* steamed toward the place where the U-boat submerged, and dropped two depth charges. The first brought up only clear water, but the second, when exploding, caused a secondary explosion, presumably a torpedo or mine in the submarine; and heavy oil, bubbles, and bits of wood came to the surface. The submarine, the *UC-58*, was, it was learned afterwards, badly damaged, but managed to reach Santander, Spain, where it was interned.

UNITED STATES BATTLESHIPS SERVING WITH BRITISH GRAND FLEET.

Secretary DANIELS. A report compiled and issued by Admiral Sims's headquarters in London stated that "between the dates of their arrival in European waters and signing of the armistice, United States battleships were attacked six times by enemy submarines, and on one occasion the *New York* collided with a submarine." That report gives the following brief summary of these encounters:

Florida, Delaware, February 8, 1918: While maneuvering off the Norwegian coast (exact position not stated) awaiting a return convoy, a submarine was sighted; four torpedoes were fired at the *Florida* and two at the *Delaware*. Both ships successfully maneuvered to avoid being hit. Two depth charges were dropped by destroyers.

Texas, April 27, 1918: At 12.47 p. m., in 56.56 N., 0.40 W., *Texas* sighted a periscope and opened fire. Depth charges were dropped by two destroyers, neither of which saw the submarines. No sign of damage.

New York, Delaware, Florida, Wyoming, Texas, June 30, 1918: First attack—At 1619, division in line abreast in open order, periscope was reported by the *Wyoming*, and was also seen by the *Parker* (destroyer); *Delaware, Florida*, and *Wyoming* opened fire; destroyers dropped six depth charges, as follows: *Salmon*, 1; *Parker*, 3; *Radstock* 2; *Radstock* remained in vicinity for half an hour, but saw nothing further. Second attack—At 1726 in latitude 58.44 N., longitude 2.34 E., *Delaware* opened fire on submarine reported astern; destroyers did not see periscope; 10 depth charges were dropped as follows: *Salmon*, 4; *Parker*, 2; *Sable*, 3; *Rocket*, 1.

Arkansas, July 28, 1918: At about 9 p. m., latitude 57.55 N., longitude 0.05, sighted periscope and opened fire with port sky gun, meanwhile going to "emergency full speed ahead" and using rudder to bring object fired at ahead. A torpedo wake was sighted running toward the ship, which she avoided by swinging to the left.

At 5.42 p. m., while the *New York* was leading the divisions, into Pentland Firth, her position then being Lother Rock Beacon 17°, Muckle Skerry Light 122°, Strome Light 257°, Swona Light 302°, and while turning with right rudder (hence stern swinging to port), a heavy underwater blow was felt on her starboard quarter, followed immediately by another, which damaged the ship's starboard propeller, breaking off two blades. After weighing all evidence in the case, such as position, depth of water, appearance of *New York's* hull when she was docked after the collision, etc., the division commander reached the conclusion that she had struck a submarine, which belief was verified by the report of the board of inquiry.

New York, October 16, 1918: At 1 a. m., while en route from a northern base, at Rosyth, three torpedoes were fired at the *New York*, all passing ahead of her

Cassin, Commander W. N. Vernon. While patrolling off the south coast of Ireland, October 15, 1917, the *Cassin* sighted a submarine awash about 5 miles distant, and speeded to attack, but the U-boat immediately submerged. While continuing the hunt in the vicinity a torpedo was sighted, headed for the ship, moving at high speed only 300 or 400 yards away. Full speed was signaled and the rudder put hard to left.

Had it kept on its course the torpedo would probably have passed astern, but when only 15 or 20 feet from the ship it porpoised, leaving the water and sheering to the left, hit the ship aft on the port side, exploding instantly, killing Osmond K. Ingram, gunner's mate, who had dashed to the stern to throw overboard the depth charges placed there. Ingram sacrificed his life in this effort to save the ship. The explosion of the torpedo and several depth charges blew off 36 feet of her stern. Her rudder having been carried away the ship could not be steered. Half an hour after she was torpedoed, the submarine's conning tower came to the surface about 1,500 yards distant. The men were still standing at the guns, and, though the *Cassin* was turning in circles, No. 2 gun opened fire and drove off the submarine. Two hours later, at 4.25 p. m., the wreckage which was hanging to the stern dropped off, and at dark the *Cassin* stopped her port engine and drifted. At 9 p. m. the British vessels *Jessamine* and *Tamarisk* came to her assistance, and worked most of the night trying to tow the *Cassin*. Early the next morning British trawlers and a tug got lines to her, and she was later towed to port by H. M. S. *Snowdrop*, arriving at 7.05 p. m.

UNITED STATES FORCES OPERATING IN FRENCH WATERS.

Numerous encounters with submarines were reported by the United States naval forces operating in French waters. When the first patrol squadron of armed yachts was on its way to France, the *Noma* and *Kanauchah* on July 2, 1917, sighted a periscope some distance away, but the U-boat disappeared before it could be successfully attacked. The same day the *Sultana* picked up the survivors of the steamship *Orleans*, which had been torpedoed. On July 19, 1917, an enemy submarine fired a torpedo at the *Noma*. The *Noma*, though one of her boilers was out of commission, went to the relief of the British Q. ship *Dunraven*, which was shelled and torpeded, and attacked the submarine, attempting to ram the enemy, but the U-boat submerged and escaped. The *Noma* then acted as escort to the British ship *Christopher*, which took the *Dunraven* in tow.

The *Noma* had a gunfire engagement with a large-type submarine on August 15, 1917, firing 10 shots, while the U-boat fired 3 at the ship. The U-boat was 6,000 yards distant when sighted, and submerged and escaped before the *Noma* could reach her. The *Noma* (Lieut. Commander L. R. Leahy), *Wakiva* (Lieut. Commander G. E. Davis), and the *Piqua* (ex-*Kanaucha II*) (Lieut. Commander H. D. Cooke), were credited by the British Admiralty for a successful attack on a submarine November 28, 1917. While the admiralty indorsement was "probably seriously damaged," the evidence of oil and wreckage indicated that the U-boat was sunk.

Remlik on December 17, 1917, in the midst of a heavy gale, sighted the periscope of a submarine abeam, 300 yards away. Though heavy seas were breaking over the *Remlik*, sweeping over both guns, the crew made every effort to attack the enemy, even the commanding officer himself manning a gun. When the seas prevented the guns being trained on the U-boat, the little yacht, in spite of the seas that almost swamped her, attempted to ram the submarine. Depth charges could not be used, since the *Remlik* could only make 2 knots against the gale. Seas came over both guns which bore on the submarine and washed overboard a depth-bomb box. The huge depth charge was rolling around the deck when the safety pin fell out. The danger was instantly realized. If the bomb exploded the vessel would almost certainly be sunk. Any man who ventured to that part of the vessel risked being swept overboard, and if the bomb exploded it meant certain destruction. But John Mackenzie, chief boatswain's mate, ran down the deck and made a dash for the bomb. It was too huge to lift, and as he wrestled to get it on end he was thrown down time and again. At last he got it in place, lines were thrown to him, the dangerous bomb lashed down, and the ship was saved.

United States destroyer *Reid* on March 18, 1918, sighted a submarine about 4 miles distant, her broadside silhouette with two radio masts being seen.

and minor fittings on small vessels. Altogether 1,597 vessels were converted for naval purposes under the direction of the bureau (pp. 133 to 135).

Arming of merchant vessels.—This work likewise was started before our entry into the war, the first vessels outfitted with a battery, magazines, quarters for guns' crew, and fire-control appliances being the *Manchuria* and *St. Louis*, of the American Line, during the first week in March, 1917. A total of about 370 merchant ships were handled in this manner (pp. 136 to 137).

Preparation of mine planting fleet.—The bureau's part in the great northern barrage was the conversion of naval and merchant vessels for planting and carrying the new type M mine. This work was undertaken toward the end of 1917, when it had been definitely decided to proceed with the project, and was completed in about three months. Ten large vessels were fitted to plant 5,700 mines in a single operation and 22 small Lake class vessels were fitted to transport the mines from the United States to the mining bases in Scotland (pp. 138 to 139).

Converted mine sweepers.—Before our entry into the war most American merchant vessels, yachts, tugs, and trawlers had been inspected by the Navy and notation made of the variety of war service for which they were suited. Immediately after our entry into the war many vessels suitable for mine sweeping were acquired by purchase, charter, or loan, and the working of fitting them as sweepers was at once proceeded with. In all, 87 such vessels were fitted out, of which number 14 were sent abroad (pp. 140 to 149).

Naval salvage service.—A few months after our entry into the war it became evident that as practically all shipping was under Government control the Government should likewise take control of all available salvage facilities. In January, 1918, the bureau commandeered the entire equipment of the three principal Atlantic coast salvage companies, and most of their personnel was enrolled in the Naval Reserve Force. The entire organization and its equipment was rapidly expanded. In addition to five existing salvage steamers, five other suitable vessels were fully equipped for this service, of which number three were stationed on the coast of France (pp. 150 to 173).

Marine camouflage.—Before the war the bureau had experimented with various systems of painting for ships with a view to reduction of visibility. As a consequence of this preparatory work four or five systems were utilized during the early months of the war. In January, 1918, arrangements were completed with the United States Shipping Board whereby the bureau took charge of all development and experimental work in this field for all vessels of the American merchant marine, as well as for ships belonging to the Army and Navy. An organization, consisting of design and research sections and a field inspection force, was built up. From March 1, 1918, to the armistice, 1,256 vessels were camouflaged—painted under the supervision of the bureau (pp. 174 to 186).

Paravanes.—Before our entry into the war the bureau undertook the independent development of a device known to be in use by the Allies for protecting vessels from mines, but of which no details were available. Immediately after our declaration of war plans of this device, the paravane, were obtained from England, and the bureau at once took up the problem of their production in quantity and the even more difficult problems of fitting ships to carry them and training personnel in their use. This work covered the merchant marine as well as the Navy. A total of 1,996 paravanes were produced (pp. 187 to 200).

Navy gas masks.—Prior to our entry into the war the bureau had carried on investigations of gas masks for use on board ship. No standard type had, however, been adopted, due to lack of dependable information of actual war experience in their use. When this information became available after April 6, 1917, the bureau pushed the work intensively and orders were placed on May 7, 1917, for 50,000 masks of its own design. A total of 170,000 masks were completed and available for use by the armistice (pp. 201 to 207).

Bureau organization.—Number of officers and employes in 1916, 143; in November, 1918, 687. Approximate average expenditures per annum under the bureau, fiscal years 1912-16: Appropriation "Construction and repair," \$9,000,000; appropriation "Increase of the Navy," \$9,000,000; total, \$18,000,000. Approximate average per annum, 1918-19: "Construction and repair," \$71,000,000; "Increase of the Navy," \$222,000,000; miscellaneous appropriations, \$34,000,000; total, \$327,000,000. Number in bureau organization per million of expenditure, 1912-16, 8; 1918-19, 2 (pp. 208 to 211).

THE THREE-YEAR NAVAL BUILDING PROGRAM.

The World War started in Europe in August, 1914. Before a year had passed the President had announced the necessity for a policy of naval expansion. In pursuance of this policy, the Secretary of the Navy, in July, 1915, called upon the General Board to submit recommendations "As to what the Navy must be in future in order to stand upon an equality with the most efficient" and to submit "a program * * * formulated in the most definite terms * * * planned for a consistent and progressive development of this great defensive arm of the Nation." The General Board accordingly submitted their first report on July 30. After consideration of this program and the estimates of cost for carrying it out, the Secretary, on October 7, directed the General Board to prepare "A building program for the Navy that will continue over five years with an expenditure of about \$100,000,000 each year for five years on new construction only." The General Board's program was submitted on October 12. The Secretary, in his annual report of December 1, submitted the General Board's program and recommended its authorization practically without change, except in regard to the distribution of numbers of vessels over the five-year period and some increases in numbers of submarines.

After extended hearings by the House Naval Committee, the entire program was included in the naval bill for the fiscal year 1916. When this bill reached the Senate the Naval Affairs Committee of that body recommended, with the concurrence of the Secretary, that the entire program be laid down within three years instead of within five years, as originally proposed. It was in this form that the bill was finally passed by both Houses of Congress and received the approval of the President on August 29, 1916.

During the consideration of this measure by Congress the technical bureaus of the Navy Department had proceeded as rapidly as possible with the design of all types of ships which it was proposed to lay down in the first year. In order that the work might be placed in hand at once upon its authorization, the department submitted to Congress in December, 1915, a request for the inclusion in the urgent deficiency bill of an authorization for the employment of additional draftsmen and other technical employees, as the design work involved in the preparation of complete new designs for 10 different types of war vessels, 2 of which had never previously been designed or built in the United States, involved an unprecedented volume of work.

The success of these measures is shown by the fact that on August 29, the day of the approval of the act, instructions, together with plans and specifications, were issued to three navy yards for the construction of one fuel ship, one hospital ship, and one gunboat.

On the same day bids were invited and plans and specifications were issued for 4 battleships, 4 scout cruisers, 20 destroyers, and 27 submarines.

Bids on the battleships and destroyers were opened on October 25; on the scout cruisers and submarines on November 1. Orders for the construction of all of these vessels were placed forthwith. Bids were invited and plans and specifications were issued for the battle cruisers about October 1, and bids were opened on December 6. Orders were issued, together with plans and specifications, to a navy yard on January 5, 1917, for the construction of the ammunition ship. It will thus be seen that, except for the necessity of 60 days' advertisement and the time required for the negotiation of contracts after the opening of bids from private builders, the department was prepared on the day the bill passed to proceed with eight of the types of vessels authorized, viz, battleships, scout cruisers, destroyers, two classes of submarine, fuel ship, hospital ship, and gunboat, and within 30 days was prepared to proceed with the battle cruisers.

Such speed was without precedent in the history of the Navy Department. It was the result of persistent insistency by the Secretary of the Navy that work should be pushed, and his loyal support in this respect by the bureau concerned. There was no procrastination or dilatoriness in the largest undertaking ever entered into by the United States Navy, and the most important from the point of view of preparation for any eventuality. While the large vessels of the program had to be suspended during the war, the destroyers were pressed, and were able to enter the war months earlier than would have been the case if in 1916 the leisurely methods formerly in use when placing contracts had been followed.

DESTROYERS.

At the commencement of the war, in April, 1917, there were 50 destroyers available, all of which had been completed within 10 years. These were in addition to 16 small destroyers authorized during the Spanish War, which had come to be classed as coast torpedo vessels, and 17 of the early torpedo boats.

Practically all of the 33 small boats had been out of commission, but were placed in service and used throughout the war, some of them in European waters.

The original 16 destroyers were of about 400 tons displacement and slightly less than 30 knots speed, carrying two 3-inch guns, four 6-pounders, and two 18-inch tubes. No further authorization of destroyers was made until 1906, and, during the following 10 years a total of 58 had been provided at intervals, these being numbered 17 to 74. Of the 50 that were ready for service in April, 1917, about half were of the 700-ton type, authorized from 1906 to 1911, mounting four 3-inch guns and three 18-inch twin tubes. Their sea-going qualities and endurance represented a great advance compared with the earliest type.

In 1911 it was decided to make a further increase in offensive qualities and radius, resulting in a 1,000-ton type, with four 4-inch guns and four 18-inch twin tubes, the torpedoes being changed to 21-inch after 1913.

A further development was made in 1915, with a view to increased longitudinal strength, better arrangement of battery, etc. All vessels built before that time were arranged with a forecastle deck extending aft for about one-third of their length, for the purpose of obtaining high freeboard forward, in order to keep the vessels as dry as possible when operating at high speeds in any weather. The development referred to eliminated this high forecastle and the upper deck was made continuous, keeping approximately the same freeboard at the bow and at the stern as in the previous vessels, the sheer line of the deck being carried directly from bow to stern without the break at the after end of the forecastle, which had previously been customary in our design. While none of this new "flush-deck" type were completed prior to our entrance into the war, five were delivered during the early stages, and saw immediate active service in the war zone. There were six vessels of this type authorized, numbered 69 to 74, inclusive. They were slightly longer and slightly heavier than the previous class, being 310 feet long and displacing normally a little over 1,100 tons.

All of the types described above, up to destroyer No. 74, were designed for 30 knots speed, and beginning with those authorized in 1908, for the use of oil fuel instead of coal.

As the war in Europe progressed conditions called for a material increase in the size of the Navy of the United States. The act of Congress approved August 29, 1916, provided a three-year building program, including 50 destroyers, for 20 of which a specific appropriation was then made. These 20 vessels contracted for in the fall of 1916, while of the same general type as those immediately preceding, embodied a number of minor improvements, with a marked increase in speed to 35 knots, in view of the designed speed of cruisers and scouts with which they might be called upon to operate.

This was accomplished on about the same length and with a normal displacement of less than 1,200 tons. Contracts for destroyers Nos. 75 to 94, inclusive, were placed as follows: Four at Bath Iron Works, Bath, Me.; eight at Fore River Shipbuilding Co., Quincy, Mass.; six at Union Iron Works, San Francisco, and two at navy yard, Mare Island.

It was evident that if we became involved in the war, special efforts would have to be made to provide convoys for the transports carrying troops across the Atlantic and to combat Germany's energetic and dangerous submarine campaign, which was then assuming alarming proportions. The act of Congress approved March 4, 1917, specifically appropriated funds to build 15 more of the 50 vessels provided for in the three-year program, and in addition placed at the disposal of the President, to be expended at his direction and in his discretion, an emergency fund of \$115,000,000 for the "purchase or construction of additional destroyers," and other purposes indicated. Destroyers Nos. 75 to 94, inclusive, had already been contracted for, as referred to above, and contracts were placed immediately for the additional 15 vessels of the three-year building program, Nos. 95 to 109, inclusive. Under the provisions of the naval emergency fund, further orders were placed for 76 destroyers, Nos. 110 to 185, inclusive.

Thus 91 additional vessels beyond the 20 contracted for in 1916 were distributed among the shipbuilding yards of the country before the middle of August, 1917, as follows: 18, Fore River Shipbuilding Co.; 20, Union Iron Works; 21, William Cramp & Sons Ships & Engine Building Co., Philadelphia; 11, Newport News Shipbuilding Co., Newport News, Va.; 10, New York Shipbuilding Co., Camden, N. J.; 4, Bath Iron Works; 1, Navy Yard, Charleston; 6, Navy Yard, Mare Island.

As already indicated in the body of the narrative, it was decided to duplicate the design of the first twenty 35-knot vessels contracted for, although none had even been launched. When the demand for still more destroyers was met by an appropriation of \$350,000,000 toward their construction in the act of October 6, 1917, which included authority for the President to "acquire or provide facilities additional to those now in existence for the construction of torpedo-boat destroyers, their hulls, machinery, and appurtenances, including the immediate taking over for the United States of possession of and title to land, its appurtenances and improvements, which he may find necessary in this connection," the same policy was followed, except for some further development indicated below.

Under the act of October 6, 1917, 150 vessels, *Nos. 186 to 335*, inclusive, were contracted for, and there were provided material increases in all existing yards, as well as separate extensions under the supervision and control of these yards. These vessels were placed as follows: 20 at Newport News; 25 at Cramps; 20 at the New York Shipbuilding Co.; 85 with the Bethlehem Shipbuilding Corporation, of which 10 were to be built at Fore River, 35 at Squantum, and 40 at its Union plant, San Francisco.

The most notable of the plant extensions were the taking over of plants formerly used for other purposes in the vicinity of the Union Iron Works, San Francisco, Calif., which were modified and enlarged as necessary to provide for additional destroyer construction; and the building of a complete new plant, with the exception of machine and boiler shops, on a large tract of land at Squantum, Mass., near Boston. The latter extension required the filling and grading of swampy ground and the building of shops, building ways and fitting out docks, for which the Fore River Shipbuilding Co., which had then become a part of the Bethlehem Shipbuilding Corporation, acted as agent for the United States. Two separate plants were taken over by this firm for providing the machinery and boilers of the vessels to be built at Squantum. Work on the Squantum plant was begun in October, 1917. This plant consisted of some 43 acres and was practically all under a single roof, even the building ways and fitting-out slips being built under cover. The first keel, that of destroyer *No. 261*, was laid at this plant April 20, 1918, about seven months after the beginning of work for the construction of the plant. The first completed vessel was delivered from this works November 30, 1918, a little over one year from the date the plant was begun. When this time is compared with the former usual period of two to two and one-half years for the construction of destroyers in already existing plants, the remarkable expedition in production is apparent.

The conditions met with by our destroyers in the war zone were found by experience to be much more severe than had formerly been encountered in the usual service in American waters. The duties of these vessels in connection with convoys required a larger steaming radius than had formerly been necessary. Their work in connection with offense against submarines made a smaller turning circle very desirable. Vessels subsequent to *No. 185*, although they were made to conform as nearly as possible to the previous design, in order not to delay their construction, were given larger fuel capacity, a somewhat stronger hull, and a modified form of stern, with an increase of rudder area. Provision was also made that they might be able to carry 5-inch guns instead of 4-inch. In case this heavier battery became necessary. Their displacement was therefore slightly greater than their predecessors, being somewhat over 1,200 tons. Their other characteristics as regards size and speed being retained.

In addition to the 150 vessels originally ordered under the act of October 6, 1917, it was later found possible to place 9 more at navy yards, together with 3 vessels of the 15 remaining from the three-year program. These 12 vessels, *Nos. 336 to 347*, inclusive, were assigned as follows: Navy yard, Mare Island, 6; navy yard, Norfolk, 3; Bath Iron Works, 3.

Subsequent to the signing of the armistice, it became apparent that the large number of destroyers provided for in the war program might reasonably be reduced so far as the country's immediate needs were concerned. A survey of

this program was made, with a view to reducing the number of vessels under construction so far as it would be economical to do so. It is an evidence of the great effort which was being given to carrying this large program to completion that, as a result of this survey, it was possible to cancel but six vessels without incurring a great waste. These six vessels were *No. 200 to 205*, building at the Newport News Shipbuilding Co. It will therefore be seen that when this program is completed the United States will have a total of 267 high-speed destroyers of the most modern type, exclusive of the last 12 in the three-year program held in abeyance.

As already referred to, under peace conditions it normally required two and one-half years from the date of authorization of destroyers until their completion. Due to the expedition naturally resulting from the commencement of the war in Europe, this time was reduced to an average of approximately two years. When the armistice was signed, in November, 1918, there had been placed in service during the war period 41 new destroyers, including 35 of the vessels authorized in the acts of August 29, 1916, and subsequent thereto. The first of the latter group was delivered in April, 1918, giving an average of five vessels a month between that time and the date of signing the armistice. The construction of these vessels represented only the expedition which was being developed during the time that the plant extensions were going forward, and it is difficult to estimate what production might have been reached had the war continued longer. Some idea of this may be gained, however, from consideration of the fact that the impetus to production developed because of war activities resulted in an average delivery, even with the slackening up of production on account of the termination of the war, of about 10 vessels per month during the year following the armistice.

Remarkable as was the entire performance of the various shipbuilding yards on the destroyer program, there are a number of individual performances on particular ships which are notable. Perhaps the most remarkable was the performance of the navy yard, Mare Island, by which the destroyer *Ward, No. 139*, was launched in 17½ days from the laying of the keel. This vessel was one of a group of five building at the same time, fabrication of which started in January, 1918. The keel was laid May 15, 1918, and the vessel was launched on June 1 following. The vessel was entirely completed and in commission at the time of trials, which were begun September 1, 1918, or 109 days from the laying of the keel. Another performance worthy of note was that of the Fore River plant of the Bethlehem Shipbuilding Corporation on the destroyer *Mahan, No. 102*, the keel of which vessel was laid on the 4th day of May, 1918, and the delivery of which was effected on the 24th of October, 1918, 174 days after the laying of the keel.

Of all the destroyers in commission in the United States Navy during the war only two were lost. Only one of these vessels was lost as a direct result of an enemy action. The U. S. S. *Chauncey* sank as a result of a collision with the British steamship *Rose* at night November 19, 1917, while both ships were in the war zone and completely darkened, as was necessary due to the submarine warfare conditions. Three officers and 18 men of the *Chauncey* were lost. The U. S. S. *Jacob Jones* was torpedoed and sunk almost immediately on December 6, 1917, in the war zone while on war duty in connection with submarine patrol. Two officers and 62 men of this vessel were lost. Both of these vessels were older types and were in service long before the commencement of the war program.

As a result of war operations, there were naturally many accidents and collisions in which destroyers were concerned. In this connection, several incidents will show the remarkable ability of these vessels to stay afloat and to operate under circumstances in which it would be difficult to conceive of their being anything but a total loss. The U. S. S. *Manley* on March 19, 1918, in going alongside a British vessel at sea for the purpose of delivering messages to that vessel, came in contact with the British vessel in such a way as to explode a depth charge carried on the *Manley*, which explosion resulted in the explosion of other depth charges. The entire after end of the *Manley* abaft of frame 147, including the after deck house, was blown off. Other serious damage to the vessel resulted because of the explosion and the subsequent fire. The vessel was nevertheless kept afloat and subsequently brought into port and repaired. The U. S. S. *Shaw* was in collision due to disabling of her steering gear with the H. M. S. *Acquitania* October 9, 1918. The *Acquitania* struck the *Shaw* on the bow forward of the bridge and cut completely through her, severing the bow from the rest of the ship for about one-

quarter of her length, setting fire to the fuel in the forward oil tank. Subsequent to this damage, the officers of the ship navigated her into Portland Harbor (England) under her own power.

In preparing the design of destroyers which constituted the war program such features were incorporated as would fit them for any service they might be called upon to do, so far as it was possible in the light of service experience available at the time from our own operations and from abroad. Developments of the methods pursued in conducting war operations and the results of experience of our own vessels in the war zone led to the undertaking of a number of modifications to increase the efficiency of the vessels, both for improvement in their seagoing qualities and in their condition for military operations. Particular arrangements were made for an installation of highly specialized apparatus for the purpose of stowing and releasing depth charges used offensively in the destruction of submarines. Certain of the destroyers were provided with special mine-laying tracks in case it became necessary to use them in high-speed mining operations. Due to the continuous bad weather in the North Sea, the bridges had to be inclosed in order that the personnel engaged in navigating the vessel might have better protection than was necessary under the usual conditions obtaining on this side of the Atlantic. Due to the strenuous service of the vessels, a number of changes were necessary in living arrangements to provide for the personnel, better comfort under periods of sustained stress. The vessels were originally designed for a complement of 95 men. Due to the large number of vessels rapidly coming into service, it was necessary to increase the complements of operating vessels, in order to train crews for those to be commissioned later. Consequently, accommodations had to be provided for 9 officers instead of 6, and for 140 men. Developments in radio communication and in radio compasses required modifications to accommodate these new developments. Provisions were made for the development of special listening devices for the purpose of tracing submarines by means of the sounds given out by submerged vessels while under way. These devices were very effective in hampering the active offensive operations of submarines. Special winches were developed for towing kite balloons used in connection with searching out submarines.

The record of the first flotilla of destroyers sent to the war zone was the subject of world-wide comment, including the attitude of the personnel. Boats and crews were ready for active service immediately upon completion of the trying voyage to Queenstown, as soon as supplies of fuel, etc., could be put abroad. During the entire service of all the United States destroyers abroad every vessel was ready for duty upon short notice whenever called upon, excepting those which were seriously damaged as a result of military activities.

SUBMARINE CHASERS.

Early in 1916 the Navy Department began an investigation of the possible resources of the United States in pleasure craft and other small power-driven vessels which would be available for use as patrol boats should the necessity arise. The Assistant Secretary of the Navy, Mr. Franklin D. Roosevelt, took a special interest in this matter and started a campaign to interest prospective owners of pleasure craft in designing their boats so that they could readily be converted to patrol uses. Naval architects and their clients were encouraged to submit their designs to the Navy Department for criticism before building. In order to give further impetus to this movement, the bureau decided to contract for the construction of two small boats of the pleasure-boat type as models, which private owners might wish to follow.

Several different yachtsmen and yacht builders became prominent in the agitation for the organization of a fleet of small patrol vessels. Among these were the Electric Boat Co., of Bayonne, N. J., headed by Mr. Sutphen. This firm had designed and been responsible for building a large fleet of 80-foot motor-driven vessels which had given efficient service in British waters.

It was evident from the designs which were submitted for criticism that the so-called pleasure power boat was not a reliable and seaworthy craft and that the Navy Department could expect very little in the way of effective additions to its force of small vessels by taking over available pleasure craft in the event of war. Such craft were clearly not seaworthy to the extent demanded for naval service, due to the fact that the average small yacht owner is not interested primarily in being able to go to sea in any weather; being able to choose his time in going from port to port, and therefore pre-

fers not to sacrifice, for the sake of seaworthiness, such characteristics as roomy, light deck structures, comfortable quarters, easy motion, appearance, etc. The machinery is also unreliable for continuous running, being generally designed to obtain a maximum speed during brief intervals and under favorable conditions, rather than for hard service.

Mr. A. Loring Swasey, now vice president of the Herreshoff Manufacturing Co., but at the time a yacht designer of Boston, Mass., had been responsible for the design of a number of motor boats particularly intended for patrol purposes, and had prepared plans from which a 45-foot boat was built by George Lawley & Son for the department. In February, 1917, Mr. Swasey came to the Bureau of Construction and Repair under the terms of a special contract to assist in the preparation of designs for a suitable type of motor-driven patrol vessel. This program was in charge of Naval Constructor J. A. Furer, United States Navy. Mr. Swasey was later enrolled as a lieutenant commander in the Reserve Corps and detailed as superintending constructor, New York City, the headquarters of a district in which the greater number of the chasers were built, rendering valuable services in connection therewith, as well as in other directions.

On account of the shortage of structural steel, and even more on account of the class of labor required for steel construction, all of which was then needed for building destroyers and merchant vessels, it was decided that the patrol boats would have to be built of wood. It was fully appreciated that this would impose undesirable limitations on the characteristics of the boats. As usual, much attention had to be given to keeping the weight within the smallest limits possible without sacrificing strength or impairing the seaworthiness of the boats.

There was practically no choice as to machinery installation. Steam engines were out of the question because of the lack of capacity for building light-weight propelling machinery in quantity. Even as to gasoline engines, it was found there was no choice, as the question of quantity production entered into the problem, and the Standard Motor Co., which had furnished equipment for the British patrol fleet built in this country, was the only one of demonstrated capacity, or known to be in a position to make required deliveries.

After the completion of the preliminary design, plans, and specifications were submitted to the department by joint letter of the Bureau of Construction and Repair, Steam Engineering, and Ordnance, on February 23, 1917, suggesting reference to the General Board, for recommendation as to the desirability of building vessels of such type and as to the military characteristics of same. Following a conference with representatives of the General Board, the design was further developed and a consultation with representatives builders of wood yachts and boats on the east coast and Great Lakes, at the Navy Department, on March 12, 1917, resulted in the appointment of a committee, consisting of Mr. Lowry, of the Gas Engine & Power Co., Morris Heights, N. Y.; Mr. Jacob, of the Jacob Shipyard, City Island, N. Y.; and Mr. Murray, of Murray & Tregwetha, South Boston, Mass., which undertook to examine the design with particular reference to details from the standpoint of the practical builder, as to the ease and rapidity of construction, etc. This committee finished its work within a few days and certain changes were incorporated in the plans, which were furnished to prospective bidders on March 18.

Orders were issued on March 19, to the navy yard, New York, for the construction of 60 boats, and to the naval station, New Orleans, for 4 boats. As a result of the first opening of bids, March 21, contracts were placed with private firms for 41 boats. On the basis of a second opening of bids, March 31, contracts were placed for 179 additional boats, and orders for 71 more were given to the navy yards at Norfolk, Charleston, Mare Island, and Puget Sound, making a total of 355 boats in all. Fifty of these were turned over to the French Government, which also requested 50 more, and these were also ordered, together with 42 for this Government, making a grand total of 447 boats, exclusive of one originally numbered 139, which was never started. Six of the 447 were canceled after the armistice.

The general characteristics of the completed design were as follows: Length, over all, 110 feet; length, 105 feet between perpendiculars; beam, 15 feet 4½ inches; draft aft, 6 feet 3 inches for displacement of 75 tons; mean draft, 5 feet 3 inches for displacement of 75 tons; freeboard forward, 9 feet 9 inches; freeboard aft, 4 feet 1 inch. Propelling machinery: Three 6-cylinder, Standard marine gas engines; bore, 10 inches; stroke, 11 inches; brake horsepower, 220;

revolutions per minute, 460; weight, 6,300 pounds, each; one 2-cylinder 4½ by 5½ inches auxiliary engine driving a 4½-inch kilowatt dynamo and pumps. Speed at displacement of 66.5 tons: With 1 engine at 370 revolutions per minute, 9.4 knots; with 2 engines at 460 revolutions per minute, 14.25 knots; with 3 engines at 460 revolutions per minute, 16.85 knots. Cruising radius, at 10 knots, 900 miles. Fuel capacity, 2,400 gallons of gasoline. Fresh water capacity, 945 gallons. Armament: One 3-inch 23 caliber gun; 2 machine guns; 1 depth-charge projector. Complement: Two officers, 24 men.

The following narrative submitted from the office of the naval constructor, navy yard, New York, is of interest as furnishing a brief description of the design as sent out, the methods followed in turning out the largest group in record time, etc.:

"As soon as sufficient data and plans had been prepared by the designing organization of the Bureau of Construction and Repair to enable builders to proceed with estimates, proposals were sent broadcast among the navy yards and private boat builders, calling for bids to include the number, cost and time of delivery. The navy yard, New York, telegraphed back its bid to build 60 or more of the boats for \$30,000 per boat. The yard proposed to lay down 40 boats immediately, promising delivery of the first boat in 80 days after the receipt of the order to proceed, and the remaining boats at the rate of one boat every three days. The yard stated further that it had material on hand for the 10 boats and a one week's option on the material for the remaining 50 boats. This bid was immediately accepted by the Navy Department, the official order to the New York yard to proceed with construction being received by the latter the same day.

"The plans forwarded by the Bureau of Construction and Repair showed the projected boat to be a stout, flush-decked boat 110 feet overall, 15 feet 4½ inches beam, and 4 feet 10 inches draft. The displacement was to be 60 tons. The propelling machinery consisted of three 220-horsepower standard gasoline engines, driving triple screws. It was estimated that this plan would drive the boat at a maximum speed of 18 knots an hour, and that the gasoline capacity of 2,400 gallons would give the boat a cruising radius of 1,500 miles at 12 knots.

"As originally designed, the boat was armed with two 6-pounder rapid-fire rifles, but later modifications caused the forward gun to be replaced by a 3-inch gun, and the after gun by a Y-gun capable of projecting the standard Navy destroyer depth charge. In addition to these the boat was armed with two machine guns. Before the completion of the first boat, the development of underwater listening devices had advanced sufficiently to enable a fairly efficient device to be fitted on the chasers. A small radio outfit completed an offensive outfit which rendered a squadron of the chasers a very grave menace to a U-boat in their vicinity.

"The boat was divided into eight compartments by six steel and one wooden transverse, water-tight bulkhead. The peak compartment, cut off by No. 1 steel bulkhead, was for use as a storeroom for lines, deck gear, etc. The compartment between Nos. 1 and 2 bulkheads was the crews' quarters, fitted with pipe berths for 16 men. Next came a small compartment for the forward ammunition stowage. Just abaft this was the compartment containing the four gasoline tanks. Over the top of the tanks a heavy floor was laid, and the space above was utilized for the radio room and for the two officers' staterooms. Next aft came the main engine room, and then a small compartment for depth-charge stowage. Aft the last steel bulkhead was a combination mess room and sleeping compartment, and in the same space, but separated from the main room by a light wood bulkhead and door, was the galley. The water-tight wood bulkhead separated the galley from an after lazarette compartment used as a food storeroom.

"On top of the forward end of the engine-room hatch was placed a pilot house surrounded by a miniature bridge and communicating directly with the officers' staterooms below. A single mast, fitted with a crow's nest and radio yard, completed the boat's structure and gave it a graceful and seaworthy appearance.

"The receipt of the order to build found the New York yard with an organization which could readily be expanded to meet the demand for speed. While only a limited number of boat builders were then employed and new ones were not to be had, there was a practically limitless supply of house carpenters to draw from, and these could be, and were, organized into gangs under the supervision of experienced boat builders, and quickly taught to perform some special operation of the construction.

"The first step, of course, was the providing of material. While there was enough lumber on hand to start actual operation, it was necessary to list and to make or purchase innumerable items of fastenings, castings, deck equipment, galley fittings, toilet fixtures, etc. This involved the preparation of specifications, submission of requisitions, awarding of contracts, and the follow up of deliveries.

"Parallel with this ran the compilation and writing up of detailed construction operations, the purchase of additional woodworking machinery, and the reorganizing of the boat-building force to meet the proposed method of building. To hasten actual erection work, some of the fabricating work was let out on contract to mills in the vicinity, and in a surprising short time began to show results.

"In deciding upon the site for erecting, the requirements for launching were the determining considerations. As no water-front space was available it was decided to launch the boats by picking them up with big cranes. Two spots were then decided upon, one adjacent to No. 4 Dry Dock, where the 50-ton traveler could pick up the boats and put them into the dock, and the other on the ordnance dock, where the floating derrick could haul the boats across to the water's edge on skids and then pick them up and put them in the water.

"Actual work was then started, one gang laying keels, one after the other; another gang framing the boats; another putting in bulkheads; another planking, etc. One operation followed another with increasing speed as the gangs became familiar with their one operation.

"As soon as the first boat was launched, the installation of engines was begun by the Standard Motor Co., of Bayonne, N. J., which held the contract for the construction and installation of the power plant in all the chasers. By the expiration of the 80 days specified for delivery of the first boat, it was completed and trial trips were begun.

"As this was the first boat of a new class, the trials were quite extensive. Several types of propellers were tried out until the best combination of pitch and diameter was obtained. Under the best conditions, the boat attained a speed of approximately $17\frac{1}{2}$ knots per hour. The reduction from the designed speed was attributed to changes in the design of the boat, which somewhat increased the weight over that originally contemplated. The boat proved seaworthy and strong and seemed to come up to expectations in all respects.

"The construction work proceeded smoothly from then on, the hulls being finished on scheduled time. The Standard Motor Co. was not able to keep pace with the hull construction, however, and the actual deliveries of boats was somewhat slower than was anticipated. The last boat was not completed until approximately one year after the receipt of the order to build." The records show that the first boat was put overboard at New York on May 7, and was ready for gun-firing trials on May 9, within 50 days of receiving the order. This was a remarkable achievement, in view of the fact that many detail plans had to be developed, materials purchased, etc.

Although unavoidably cramped and uncomfortable, these 110-foot boats did splendid service, especially in the Mediterranean, and in releasing larger vessels for heavier or more important duties. Their behavior in a heavy sea was surprisingly good, as illustrated in the case of one flotilla which while en route to Gibraltar from the Azores ran into a heavy gale. On reaching port it was found that the more powerful vessels which were escorting the boats had been badly battered, while the chasers themselves were entirely undamaged.

Criticism directed against the chasers applied more generally to workmanship, which showed apparent defects in some respects, as was to be expected to a certain extent, due to the conditions under which the vessels were built. This applies particularly to the calking in the case of small boats proceeding immediately on a long, hard sea voyage after a hurried completion. The minor troubles experienced on vessels sent to Europe were chiefly with machinery and on account of inexperienced personnel. The general design was uniformly commended, both by our own officers and the French.

Rear Admiral McCully, in a report submitted in January, 1918, commented as follows on the seagoing qualities of the chasers:

"Sea qualities of chasers.—Every officer of the squadron has remarked on their excellence as sea boats, and they are seaworthy to a remarkable degree, more so than the yachts. They take seas from any direction easily and gracefully, were never observed to ship a sea, and if carefully handled would probably last through any sea.

"They roll about 9 to 10 complete oscillations per minute and lie naturally broadside to the wind when without headway. Under way their best point is with wind and sea about three points on the bow. They ride very well with wind on the quarter; but if given too much speed, may broach and be beaten down by heavy seas, as one did. This boat was thrown on her beam ends and held down with the pilot house in water up to the windows, but recovered and came out all right, losing, however, two men who were washed overboard, three other men who went over at the same time holding onto the towing strap and being saved. The boat was undamaged except that lee life rail and canvas screen about pilot house were carried away.

"These boats will safely carry a deck load of fuel and stores amounting to 2 tons in weight; and if they be composed of gasoline, increase their radius to about 1,700 miles.

"When lying to in a heavy sea the chasers do not drift to leeward so fast as larger vessels. They ride very comfortably to the sea anchor as fitted."

The French officer who had command of the second group of chasers on the trip across stated in his report:

"During the voyage the chasers nearly all had at least two days of rough weather, and they showed excellent seagoing qualities. These ships are thoroughly seaworthy and keep the sea quite as well as the convoys."

The commanding officer of the Third Squadron likewise reported:

"The chasers proved exceedingly seaworthy. The very bad weather experienced on the voyage from the Azores to Lelxoes proved this conclusively."

The report of the commanding officer of the *Hannibal*, covering the return of a detachment of 32 chasers in the early part of 1919, after a year or more in European waters, showed that the entire voyage was completed with only minor difficulties, the weather having been favorable, however, throughout the trip.

Twenty-four chasers were utilized in conjunction with 32 mine sweepers in cleaning up the North Sea barrage and did not leave Europe until late in September, 1919.

From several points of view the 110-foot chasers are an ideal type for hunting submarines. They can be brought to a standstill from full speed very quickly, their turning circle is very small, and on account of there being practically no auxiliaries except the blowers and generating set, with storage batteries for current in emergencies, all sound can be quickly suppressed when desired, permitting the use of listening devices at maximum efficiency.

A schedule of chaser contracts is attached, as a matter of record:

Schedule of contracts for subchasers.

Name of builder.	Location.	Boats and numbers.	
		Second program (for French Government).	Third program.
New Orleans naval station.....	New Orleans, La.....	1-4, 114-115.....	443-444.
New York Navy Yard.....	Brooklyn, N. Y.....	5-64.....	.....
Mathis Yacht Building Co.....	Camden, N. J.....	65-74, 209-213, 381-385.	426-430.
Hillebrand Drydock Co.....	Kingston, N. Y.....	75-89, 371-375.....	421-425.
Elco Co.....	Bayonne, N. J.....	90-105, 361-364.....	.....
Charleston Navy Yard.....	Charleston, S. C.....	106-113.....	.....
Norfolk Navy Yard.....	Norfolk, Va.....	116-136.....	.....
Hodgdon Bros.....	East Boothbay, Me.....	137-138.....	.....
Hartman-Orrell Co.....	Green Bay, Wis.....	140-141.....	.....
Rocky River Dry Dock.....	Rocky River, Ohio.....	142-143.....	403-406, 437-438
Vinard Shipbuilding Co.....	Milford, Del.....	144-146.....	.....
L. E. Fry & Co. (E. J. Wright).....	Clayton, N. Y.....	147-148.....	.....
Dubuque Boat & Boiler Works.....	Dubuque, Iowa.....	149-150.....	.....
Gibbs Gas Engine Co.....	Jacksonville, Fla.....	151-155.....	.....
F. M. Blount.....	Pensacola, Fla.....	204, 208, 365-370.....	.....
Howard E. Wheeler.....	Brooklyn, N. Y.....	156-159.....	.....
Mathews Boat Co.....	Port Clinton, Ohio.....	160-168.....	431-433
International Shipbuilding & Marine Engine Co.....	Upper Nyack, N. Y.....	169-173, 386-392.....	.....
General Shipbuilding & Aero Co.....	Washington, D. C.....	179-188.....	.....
Alexander McDonald.....	Mariners Harbor, Long Is- land, N. Y.....	189-203.....	434-436
		214-217.....	.....

Schedule of contracts for subchasers—Continued.

Name of builder.	Location.	Boats and numbers.	
		Second program (for French Gov- ernment).	Third program.
Newcomb Life Boat Co.....	Hampton, Va.....	218-222	.....
New York Yacht, Launch & Engine Co.	Morris Heights, N. Y.....	223-242, 393-402	.....
Eastern Shipyard Co.....	Greenport, N. Y.....	243-247	.....
Camden Anchor-Rockland Machine Co	Camden, Me.....	251-252	407-408
Geo. Lawley & Son.....	Newponset, Mass.....	253-272	.....
Mare Island Navy Yard.....	Mare Island, Calif.....	273-287	.....
Puget Sound Navy Yard.....	Bremerton, Wash.....	288-312	.....
Robert Jacob.....	City Island, N. Y.....	313-317	.....
Luders Marine Construction Co.....	Stamford, Conn.....	318-322	.....
Kyle & Purdy.....	City Island, N. Y.....	323-327, 376-380	.....
Great Lakes Boat Building Corporation	Milwaukee, Wis.....	328-329	419-420
Burger Boat Co.....	Manitowoc, Wis.....	330	.....
Smith & Williams Co.....	Salisbury, Md.....	331-332	.....
Barret Shipbuilding Co.....	Mobile, Ala.....	333-336	.....
American Car & Foundry Co.....	Wilmington, Del.....	339-346	.....
College Point Boat Corporation.....	College Point, N. Y.....	347-356, 357-360	413-418
Clayton Ship & Boat Co.....	Clayton, N. Y.....	.....	411-422
Chance Marine Construction Co.....	Annapolis, Md.....	248-250, 409	.....

NOTE.—Nos. 139, 410, 442, 445, 446, 447, and 448 not built.

SUBMARINES.

Prior to the authorization of the three-year program in the act of August 29, 1916, there were in commission or under construction 75 submarines, including 14 of the A, B, and C class—small boats of about 100 to 250 tons, suitable only for local harbor defense, and 16 of the D, E, F, and G class, practically in the same category, although of some additional value for training purposes. Thirty-one of the 75 were still under construction in April, 1917.

The three-year program provided for 58 coast submarines, of which 30 were immediately authorized, including three S boats (800-ton class). Of these, one each was assigned to the Lake Co., begun at Bridgeport in February, 1917; one to the Electric Boat Co., begun at Quincy in March, 1917; and one, of department design, assigned to the Portsmouth navy yard in September, 1917. The other 27 boats—R class—were divided between the Electric Boat Co. and the Lake Co., the former contract, dated January 8, 1917, being for 20 boats, and the latter, dated February 19, 1917, being for 7 boats.

The act of March 4, 1917, authorized construction of 18 more of the 58, also of the 800-ton class, 10 of which, department design S boats, were assigned to the Portsmouth yard on March 16, 1917.

The same act also specifically authorized 20 boats additional to the three-year program, and the Electric Boat Co., was awarded a contract for 24 S boats of its own design on July 17, 1917, the remaining 4 to make up the 38 carried in the act being ordered of the Lake Co. under date of July 12, 1917, on department designs.

In January, 1918, the Electric Boat Co. took up with the department the question of taking over 6 submarines of the H-class design, which were originally contracted for by the Russian Government, but withheld owing to conditions which had arisen. These boats had been partially constructed and crated for shipment, the parts being assembled in different localities in the United States and Canada. The proposition presented was to have this material diverted either to a shipbuilding concern in the United States or to a navy yard, and there assembled from the "knock-down" condition. After considerable negotiation, it was finally decided to take over these 6 boats and have them assembled at the navy yard, Puget Sound. This decision was reached and authority was given the Puget Sound yard to proceed in May, 1918.

With regard to these 6 H boats, it was definitely understood by the bureaus and the department that the boats, when completed, would not be up to date, nor would they be modern submarines in size, type, or equipment. They were taken over purely as a war measure. Actual construction work was commenced

at the Puget Sound yard in May, 1918, and the boats were completed and delivered in September, October, and November, 1918. The Puget Sound yard did very creditable work in completing these vessels, and they successfully fulfilled their contract requirements. Due consideration being given to the type and design, they may be considered reasonably satisfactory boats, their military value being more in the nature of harbor or local coast defense.

The 6 H boats were covered by funds provided by the act of October 6, 1917, and on August 1, 1918, the department authorized the construction of 24 additional S boats. Fourteen were tentatively assigned to the Electric Boat Co. and 10 to the Lake Co. When the armistice was signed the department decided to cancel 14 of the 24. Contracts for the remaining 10, which were not finally placed until July, 1919, completed the 58 carried in the three-year program. This class of 10 boats are improved S class, six being the Electric Boat Co. design, of slightly greater displacement than S-1. The four assigned the Lake Co. are the department design of slightly greater displacement than S-3.

During the spring of 1917 the department issued various instructions relative to precedence to be given to vessels under construction. Submarines had various positions in this precedence list, ranging from No. 9 to No. 4, but owing to their success in antisubmarine work it was ultimately decided by the department to place the construction of submarines with, but after, destroyers. This decision came too late to obtain the maximum rapidity for submarine construction. Furthermore, the yards where the majority of submarines were building were also building destroyers, which had the right of way. The net result of this procedure was that, with the exception of six R-boats at the Union Iron Works and the six H-boats at Puget Sound, no really rapid construction work was accomplished.

The six R-boats (*R 15 to 20*) built at the Union Plant of the Bethlehem Shipbuilding Corporation, San Francisco, were actually constructed in a remarkably short time after construction work began. They were delivered in a little better than four months ahead of their contract time, and the contractor received a bonus in accordance with the terms of the contract for this early delivery.

A few months after the entry of the United States into the war authentic information relative to war experiences of allied submarines in the war zone began to arrive in the department, and this information continued to come in throughout the period of the war. All of this information was carefully analyzed; such alterations, modifications, and improvements which service in the war zone indicated as absolutely necessary were made as far as practicable in the boats under construction. It was fully realized that this would delay the completion of the vessels, and every effort was made to keep down the number of alterations to those which war experience had proven to be absolutely necessary.

The *K 1, 2, 5,* and *6* were sent to the war zone (Azores) in October, 1917. The department and the bureaus concerned fully realized the comparatively small value of these vessels for distant duty, but on account of the numerous sinkings of isolated merchant ships in the vicinity of the Azores it was considered desirable to establish a base there and man it with American submarines. This action had the desired effect, and the number of sinkings was markedly reduced as soon as the submarines arrived. It was contemplated at the time to relieve these four vessels by another division of submarines as soon as they became available, and such action was actually taken by the department in September, when the Lake L class was sent to the Azores to relieve the *K* class.

Seven *E. B. L*-boats and the *E-1* were sent to the war zone via the Azores in December, 1917. The *E-1* remained at the Azores, while the seven L-boats were assigned to Bantry Bay, Ireland, where they gave an excellent account of themselves. After a period of intensive instruction with the British they were given their own billets and successfully operated therefrom thereafter. The British credited this division with sinking one German submarine. Their greatest value, however, was in keeping German submarines away from this part of Great Britain, thereby materially reducing the number of merchant vessels destroyed.

Various coastal patrol work was done by submarines attached to the submarine base, New London, Conn. This work was generally local and was in addition to the duties performed by these vessels as training and experimental boats.

The *O-1* to *O-10* were assigned to extensive work in the patrol of the eastern Atlantic coast and did excellent work. This division proved itself very reliable and may be considered as representing a very material improvement over previous submarines. They were ordered to the war zone via the Azores and arrived at the Azores the day the armistice was signed.

From April, 1917, until November, 1918, 40 submarines were delivered, as follows: 1 *L* boat (*L-8*), lake type, 1917; 3 *N* boats, electric-boat type, 1917; 1 *M* boat (*M-1*), electric-boat type, 1918; 3 *L* boats, lake type, 1918; 4 *N* boats, lake type, 1918; 8 *O* boats, electric-boat type, 1918; 1 *O* boat, electric-boat type, 1918, Portsmouth; 1 *O* boat, electric-boat type, 1918, Puget Sound; 3 *O* boats, lake type, 1918, west coast; 3 *O* boats, lake type, 1918, east coast; 6 *R* boats (*R-15-20*), electric-boat type, 1918, west coast; 6 *H* boats, electric-boat type, 1918, Puget Sound.

In August, 1918, Commander E. S. Land, who had been on duty in the bureau in connection with submarine design following the transfer of Lieut. Commander E. S. Howard to Portsmouth for the supervision of boats built in that yard, in January, 1917, was ordered to Europe for an inspection of the principal submarine yards in England, France, and Italy, and was later able to make an examination of submarines in the water and on the ways in Germany as well as of German submarines at Harwich and Portland in England.

In February, 1919, the department decided to take over six German submarines, and the following vessels came to the United States under their own power, being manned by American officers and crew: *U-117*, *U-111*, *UB-148*, *UC-97*.

The *U-140*, being in a partially dismantled condition, it was necessary to tow her over, and she is now at the navy yard, Portsmouth.

The inspection trip referred to above indicated that very satisfactory progress was being made in submarine design and construction of submarines for the United States Navy as compared with results obtained abroad. There were found many points of interest in connection with the designs of foreign submarines—some worthy of adoption and others to be avoided. Very complete comparative trials were conducted with the German *U-111* and the *S-3* in August, 1919. Both were built in 1917-18, are generally similar in dimensions, armament, complement, etc., but the *S-3* showed considerable superiority in speed—particularly submerged, and about 20 per cent greater maximum radius of action on the surface at 11 knots against 8 knots for the German boat, with an equal endurance submerged at 8½ knots against 5 knots.

EAGLE BOATS.

In the autumn of 1917 the construction of destroyers had been undertaken to the limit of our capacity. The 110-foot subchasers were being delivered rapidly, but little experience had been had with them, and naval opinion of the small wooden vessels, at that time, was not as favorable as it became after some of them had been placed in commission.

The great effort to develop listening devices for the location of submarines from surface vessels was beginning to show results, and the groups engaged upon this work were convinced that they had developed devices which would be thoroughly satisfactory in service, although it developed subsequently that they had been somewhat too optimistic.

Under the circumstances and under the conditions existing, with the submarine menace still of the utmost gravity, there was great desire for the construction of additional antisubmarine vessels. Evidently this could be done only by developing some entirely new source or sources of supply. With the great pressure upon the mechanical and industrial resources of the country for Army work in addition to Navy work, the prospect for the rapid construction of additional vessels was not very rosy at this time, although preliminary plans had been prepared in the bureau of the department for steel vessels much smaller than destroyers, but larger than the 110-foot chasers, with a greater cruising radius, and specially fitted to search for and locate submarines by means of the listening equipment which was then being rapidly developed.

Such were the conditions when on December 24, 1917, the Secretary of the Navy received from Mr. Henry Ford a letter in part:

"For some time past the submarine menace has caused us to give consideration to some method of checking its destructive work and to formulate some plan whereby this could be brought about. From investigations made by us

we believe that the great need for 'submarine detector-destroyers' is apparent, and these should be built at once. We have been much impressed with the progress made in the development of detective devices, and it is our opinion that if suitable boats are built and properly equipped with this device, it will be the best means of meeting the submarine problem next summer.

"I have had the privilege of personally discussing the needs of devices for fighting the submarine with British naval officers who have been in active service during the war and whose ideas seem to coincide with mine that the present 84 and 110 foot so-called submarine chasers are not of sufficient speed—not seaworthy enough—nor capable of permitting guns of sufficient caliber to be mounted thereon for effectively coping with the submarine; and, lastly, these smaller boats are most wearing on the physical resources of the crews.

"Torpedo-boat destroyers can not be built in time and in sufficient numbers to bring about the destruction of this menace to shipping.

"Further, the destroyer is too noisy to be used as a satisfactory listening boat if equipped with detection devices.

"We are also convinced of the fact that there are ample steel making and fabricating plants in the Middle West to furnish all the material necessary (which is not of comparatively large amount) without interfering with any Government war program. On this point we have been informed by persons of wide experience and of competent judgment.

"We are also advised that the most effective boat which the British Government has developed in their fight against the submarine is a so-called 'P' boat, or what might be termed a seagoing tug. A slight modification of this as a listening boat can be built as a detector and destroyer of submarines, and can be constructed at about one-sixth of the cost and six times more rapidly than our destroyers.

"To overcome this menace we believe it will probably be necessary to construct at least 500 of these boats.

"A fleet of this new type can be built in the United States by utilizing the capacity of plants not now engaged in or identified with any naval or shipping program.

"This plan will make no drain nor call upon any labor now engaged in the shipbuilding within or without the United States. We are confident that men can be trained for this work in all its departments from our own organization and from the ordinary or general supply of labor as rapidly as needed. This is a cardinal consideration.

"We will undertake the construction of these boats with all possible speed and deliver them to the United States Government without profit to us.

"It is our intention to accomplish this work in centers where no unusual railroad congestion now exists."

To this the Secretary of the Navy, under date of December 24, 1917, replied by telegram as follows:

"Your letter 22d offering your services to construct submarine patrol vessels without interference with present programs interests us. Designs of such vessels had already been begun by department. Suggest you send ample force of your engineers and production men to work with our designers and get full information so you can submit definite proposition as soon as possible. This matter should be kept secret."

In response to this telegram, Mr. Ford, with a party of his engineers and representatives, came to the Navy Department and discussed with the Secretary and the Bureaus of Construction and Repair and Steam Engineering the whole project. It was agreed that for any boats undertaken to be built upon the plans of the Navy Department, the first thing to be done as far as the department was concerned was to supply the necessary plans. This work, in the Bureau of Construction and Repair, was placed in the hands of Capt. Robert Stocker, Construction Corps, United States Navy, assistant chief of bureau, and in charge of the Design Division, the numerous draftsmen engaged upon the project being under the immediate direction of the chief draftsman of the bureau, Mr. W. M. Wallace. Capt. Stocker and his assistants undertook the development of the design with the utmost energy, work being carried on night and day, and practicable plans being developed in an unprecedentedly short time. Plans and specifications were delivered to a representative of Mr. Ford on January 12, 1918, and a definite proposal was requested, this being received on January 15 in a telegram addressed to the Secretary of the Navy, which stated:

"Complying with your request for a more definite proposal as to the construction of a patrol boat for detecting and destroying submarines, such boat to be 200 feet long, 25 feet 6 inches beam, and approximately 500 dead weight capacity, and equipped with 2,000 horsepower turbine engines, designed for 12 knots an hour cruising speed and 18 knots emergency speed, we beg to say we have made careful investigation and have had the advice of experts, and we are prepared to proceed immediately to construct according to your plans and specifications from 100 to 500 or more of these vessels and will prosecute the work with utmost dispatch and exert our utmost endeavor and deliver 1 boat in 5 months or sooner, 10 boats in 1 month thereafter, 20 boats in the next succeeding month, 25 boats in the next month, and then at the rate of 25 boats per month after first 100, and could increase delivery very rapidly. We will do this work on the basis you suggested, namely, an estimated cost plus a fixed sum with a savings clause such as is usual in your contracts, payments to be made promptly as our expenditures are made. We have made an estimate of cost based upon present conditions and after conferring with experts and taking some figures on power plant and other parts of the work are willing to undertake this work upon an estimated cost of \$275,000 per vessel, at the same time expressing our belief that this is a liberal figure and that there would be considerable savings. However, we are not boat builders and will not assume responsibility in damages if the cost should exceed this, nor do we assume responsibility for performance of boats. We estimate the requirements for buildings and ways and equipment especially needed for this work at not exceeding \$3,500,000, to be paid by you as expenditures are made and to be sold for your account at the conclusion of the work either at the value of same to us or third persons at your election. Please do not misunderstand our position. We are not soliciting orders, but are willing to assist the Government by undertaking this work as of the highest and most vital importance, but impossible of accomplishment without disturbing or seriously impairing present program of the Navy and Shipping Board."

The plans and specifications as completed were forwarded to the Secretary of the Navy for approval, through the General Board, which recommended, with certain reservations as to battery and sustained speed, the immediate construction of 100 of the boats, with such later increase as occasion might require. The Secretary of the Navy approved the project in accordance with the recommendation of the General Board on January 17, upon which date a telegraphic order was addressed to the Ford Co. to proceed with 100 boats, the details of the contract to be arranged as soon as practicable. Later 12 additional boats intended for the Italian Government were ordered.

The salient features of the contracts with the Ford Motor Co. for the construction of Eagle patrol boats were as follows:

The original contract, dated March 1, 1918, covering 100 boats and stated that "time is the essence of this contract" and that "the contractor shall use every endeavor to deliver the first of said vessels within five months from the date of this contract, 10 boats within one month thereafter, 20 boats within the next following month, and 25 boats a month thereafter." It provided that the contractor construct all buildings, building slips, plant, and other special facilities, in addition to those already in its possession, for the special purpose of building the vessels contracted for, and to be paid for by the department at their actual cost, not to exceed \$3,500,000, no profit being allowed the contractor on such costs. It also gave the contractor, upon completion of all work under the contract, the option of taking over the special plant facilities at appraised values determined by the compensation board. The price to be paid for the vessels was to be actual cost plus a fixed fee of \$20,000, with a provision that 25 per cent of the savings, if any, under the estimated cost of \$275,000, revised as provided for in the contract, be paid the contractor in addition to the fixed fee of \$20,000.

A supplementary contract, dated July 10, 1918, provided for building 12 additional boats under the same conditions as obtained in the original contract.

A further supplementary contract, dated October 7, 1918, was made on account of the fact that a number of the patrol boats could not be completed at Highland Park plant of the contractor in 1918 before the close of navigation on the Great Lakes, and to provide additional plant facilities on the east coast so that the assembly and completion of such patrol boats could be carried on and delivery made during the winter. The Ford Co. was authorized in this

contract to provide additional buildings, plant, and other facilities on land owned by it at Kearny, N. J., the expenditures for such plant being limited to \$2,500,000; the total expenditures for plant and all other facilities at both Highland Park and Kearny not to exceed \$5,500,000. The provisions of the original contract as to profit on expenditures for plant facilities at Kearny, and as to disposition of same, were extended to this supplementary contract.

In accordance with the contract the Ford Co. erected a shipbuilding plant at River Rouge on the outskirts of Detroit for fabricating and assembling the hulls of the vessels. The main propelling machinery was largely built at the Ford Motor Co.'s main plant, Highland Park, Detroit.

Perhaps the greatest successful departure made by the Ford Co. from ordinary shipbuilding methods was in connection with the assembling and launching of the hulls. In ordinary ship practice, the hull of the vessel is constructed upon land and transferred to the water by sliding down greased ways placed longitudinally or transversely. At River Rouge there was located a building 1,702 feet by 306 feet, containing three railway tracks running lengthwise. Twelve trucks were provided, capable of carrying the completed hull upon the tracks.

Each track has seven erecting stations. Starting with a truck at the first station, the keel, etc., would be assembled; then the truck shifted to the second station, where the frames would be erected. At each succeeding station a certain definite group of operations would be performed and a certain definite proportion of the material incorporated. At the seventh station the hull was made ready for launching; then the truck hauled out of the building to a transfer bridge, which could take a truck from any one of the three erecting tracks. Owing to the question of grade, any ordinary system of launching or marine railway arrangement was out of the question, and the transfer bridge was so arranged as to deliver the boat on its truck to a fourth track onto a large hydraulic table. When the truck was secured on this table the latter was lowered into the water and the boat floated clear.

The Ford Co. undertook this enterprise with the greatest zeal and enthusiasm, the building described being erected and the plant generally ready for operation by May 1, 1918, or within a little more than 100 days from the receipt of order to proceed. The first keel was in place by May 7. In spite of unbounded energy and effort, the Ford Co., which was entirely without previous shipbuilding experience, found it impossible to prosecute the enterprise as rapidly as they had expected. There was great difficulty in training "green" labor so as to secure proper workmanship, especially as regards water and oil tightness, and the Ford Co. also found that the difficulties of finishing, ready for service, a vessel as elaborate and complicated as the Eagle boats (so named by the department) were great and time consuming, as well as more expensive than it had anticipated.

During the summer of 1918 it became evident that comparatively few vessels would be finished at the River Rouge plant before the close of navigation by ice upon the Great Lakes. It had been contemplated from the first that if necessary to deliver vessels during the winter a supplementary assembling plant would be erected at Kearny, N. J. After a good deal of discussion and some difficulty in obtaining permission from the War Trades Board, which regarded the Newark district as already somewhat congested and short of power, the erection of the supplementary plant at Kearny was undertaken. It had made but little progress, however, at the time of the armistice, and was suspended promptly thereafter.

Three boats were delivered and reached tidewater from the River Rouge plant before the close of navigation in 1918. An attempt was made to get out four more, making seven in all, in a more or less unfinished condition, but the last four were caught by the ice and returned to the builders in the spring of 1919 for completion and fitting for service. After the armistice of November 11, 1918, the work was no longer pressed, and the department, under date of November 30, 1918, canceled 52 of the total number of 112 boats originally ordered, leaving 60 to be completed during the season of 1919. Although, of course, the work was not pressed as under war conditions, and at one time there seemed to be doubt as to whether all vessels would be completed, the last one was delivered November 12, 1919.

It is interesting to note that 23 of those vessels were completed in September, 1919, rather indicating that the Ford Co.'s original estimate of 25 vessels a month was mechanically feasible, although it was seriously in error as to the time within which such a rate of production could be reached.

At the time this project was undertaken the experienced regular constructors in the Navy were all absorbed in important work, and arrangements were made by which one of the best-known shipbuilders on the Lakes, Mr. C. C. West, became the local representative of the Bureau of Construction and Repair charged with the inspection of the work. Capt. Stocker, who had been in charge of the design, kept in close touch with the work of construction, visiting Detroit as necessary. After the armistice, Mr. West returned to his regular business, and during the season of 1919, Commander Whitford Drake was inspector at the works, representing the Bureau of Construction and Repair.

It is not generally realized that the Eagle boats are vessels of considerable size. They are much larger than the early torpedo boats, and are in fact larger than the destroyers built prior to 1903. The destroyer *MacDonough*, commissioned in 1903, had a displacement of only 400 tons. The characteristics of the Eagles, as built, are as follows: Length, 200 feet; beam, 25 feet 6 inches; draft amidship, 7 feet 3 inches; normal load displacement, 500 tons; single screw, turbine driven; normal shaft horsepower, 2,000; overload shaft horsepower, 2,500; speed, 18.3 knots; cruising radius, 3,500 miles; armament, two 4-inch 50-caliber guns, one 3-inch antiaircraft gun, two machine guns, and one depth-bomb projector; complement, 5 officers and 68 men.

The Eagle boats have a peculiar appearance, being built as much as possible of flat plates to facilitate rapidity of construction. Nevertheless they are thoroughly seaworthy as shown by reports submitted by the commanding officers of numbers 1, 2, and 3, forwarded by the division commander in May, 1919, which were very favorable as to the performance of the boats after steaming from New York to Inverness, Scotland, over a 4,500 mile course, with green crews. The division commander's report stated:

"At sea the Eagles are very dry considering size, and living conditions good except in the after compartment. Some fairly bad weather has been encountered and their behavior has been good. * * * The boats are lively, but the motion is not as bad as might be expected."

While the report on Eagle 1 included the following statements:

"The sea-going qualities of this vessel under nearly all conditions have been more than satisfactory when properly handled. Owing to the peculiar construction of the vessel, it will probably be interesting to see how she will act under different conditions, and there I wish to point out the following, gained from my experience on board since commissioning under varied sea conditions:

(1) In driving into a head sea the vessel is very steady, but pounds to such an extent that I would not consider it advisable to force her into such a sea, especially at over 8 knots. (2) With sea on the quarter this vessel rolls very heavily. Our maximum roll on this vessel was 44° to leeward in a medium choppy sea. The force of wind at the time was about 7 (Beaufort's scale). (3) With wind dead astern the vessel yaws to such an extent that it is very difficult to keep her on her course. (4) With wind just off the bow the vessel is very steady and does not pound.

"This condition I consider the ideal sea condition for this type of vessel. At one time it was necessary for us to lay to in a comparatively heavy sea. Under that condition the wind holds the vessel over from 10° to 15°, but she is very steady.

"This vessel handles very easily at anything over 8 knots speed, but it is very difficult to handle in a tight place, as, for instance, around a dock, owing to the single screw and great wind surface; and then, this being a turbine ship, it takes at least a minute from standard ahead to stop and about two minutes from stop to full astern."

Various minor recommendations as to improvement in ventilation of quarters aft, alterations in chart house and bridge, etc., are receiving consideration.

A further report forwarded by the division commander in September, after steaming a total of 11,500 miles, confirmed the earlier reports with little additional comment. This report stated that the boats had been in use to maintain a dispatch service between ports in north Russia, and that each ship had made passages through considerable field ice on several occasions with no damage. It also remarked the fact, frequently commented upon by our own and allied officers, that there is practically no vibration at any speed. The boats in service will be available for "gunboat" duty in addition to their special function of patrol vessels.

A special report on Eagles 1 and 3, submitted by Rear Admiral McCully in July, 1919, described the behavior of the vessels under various conditions of

weather, including a moderate gale encountered in the White Sea, in which "the vessels behaved fairly well but motion was very violent." In head seas "very little water was taken forward, even over the low, sharp fore-castle, and no water except spray reached the high forward gun position." During target practice "each vessel made 17 knots without difficulty."

Admiral McCully also suggested various minor changes toward improving the habitability and seaworthiness of the vessels, his comments concerning which are not unfavorable, considering their type and size. The summary of his report states: "Lack of sufficient seaworthiness would make it inadvisable to use them for service in rough open waters. They would probably be very uncomfortable in the Tropics.

"They carry a good battery, well mounted, and are fairly economical. They are easy to handle when under way, turn quickly, but maneuvering alongside docks do not handle very well. At anchor in winds or currents they are dangerously uneasy unless modified. They are quite comfortable in temperate climates, and crews seem to like them.

"As to the character of service for which they are qualified, it would be difficult to say. They were evidently designed to hunt submarines in coastal waters, and near home ports, would be able to perform this character of service very well. As dispatch vessels in northern Russian waters, they were very serviceable.

"They would probably be of most value during peace in training officers and crews for manning destroyers in time of war. The experience gained by their commanding officer in piloting work along coasts would be invaluable.

"The Eagles arrived in good conditions, and have been maintained so by their crews alone. The waters in which they were required to serve have not been thoroughly surveyed; charts are imperfect. Navigational data is scanty, and the commanding officers in carrying out their duties have been hampered by ice, fog, strong currents, and other difficulties requiring most careful navigation. This they have performed excellently, so far without any accident, and the Eagles are leaving the station in even better condition than when they arrived."

TUGS AND MINE SWEEPERS.

Prior to entering the war, the Navy had in service about 50 tugs of all types, only 12 of which could be classed as seagoing. The necessity for large ocean tugs and for mine sweepers had been appreciated and considered in the fall of 1916, by the General Board, which laid down similar characteristics for the two types based upon those of the *Ontario* and *Sonoma*, designed and built as Navy tugs in 1912, the recommendations as to mine sweepers involving increased speed and a reduction in draft. The characteristics were approved by the department on December 6, 1916, and referred to the bureau for development.

As referred to elsewhere, the various inspection boards, immediately before and after our entry into the war, reported several hundred vessels of different types as suitable for such service as patrolling, mine sweeping, towing, etc., and of those taken over, over 80 were designated as mine sweepers, and about 50 added to the list of tugs. Very few of them, however, possessed the characteristics which had been adopted as the most desirable for such service.

Two designs for mine sweepers were prepared, early in 1917, one for a 200-foot, 1,250-ton vessel of 16 knots speed, and the other for a 180-foot vessel of 950 tons and 14 knots, both designed along the lines of a modern seagoing tug, with a view of their utilization as such during the war, if necessary, and after the war might end. The advantage appeared to be with the smaller design, both as to time and expense of construction, ease of handling, etc., and the department on May 10, 1917, authorized the building of 14 of those vessels from the emergency fund. As it had just previously issued instructions for the construction of 10 seagoing tugs, it was decided to place orders for 24 vessels of the design referred to, the details of which were as follows:

Length over all, 188 feet 10 inches; length between perpendiculars, 180 feet; beam, 35 feet 6 inches; depth, 18 feet 8½ inches; draft, maximum, 10 feet 3¼ inches; displacement, normal, 950 tons; speed, 14 knots; horsepower, 1,400; propelling machinery, vertical 3 expansion; 19 by 29 by 46 feet; stroke, 30 inches; fuel, 275 tons oil; cruising radius at 10 knots, 6,000 knots; battery, two 3 inch .50-caliber AA; messing and berthing for 5 officers and 67 men.

The problem presented in placing contracts for a considerable number of steel vessels of this size was not simple in its solution, as a survey of the coun-

try's facilities had been made, the result of which indicated that all yards capable of undertaking such construction had their facilities obligated to capacity for the coming year. The Navy had, however, come to view such a condition as standard and one which called merely for the uncovering of other ways and means which in this case must be quickly found as the department had placed the mine sweepers on a par with the destroyers, the construction of which took precedence over all other types of ship construction.

As a first step in the interest of expeditious construction it was decided to develop all features, except those of a purely military nature, along the lines of commercial-ship construction, with the result that naval specifications were to give way to commercial practice, as stipulated by the American Bureau of Shipping, with the intention of building the vessels to the highest class under these rules. To further facilitate matters for those builders who were accustomed to build only to commercial standards, arrangements were made to have the detail plans prepared by a private concern with a long experience in tug design and construction. A later development in this direction provided for this same concern placing orders for all materials except those to be furnished to the contractors by the Government.

These arrangements made it possible to utilize facilities of builders who had not had experience in Government work and whose organizations ordinarily would not contain personnel capable of such work, but who were otherwise entirely competent to carry on the actual construction.

In view of the conditions at the time, bids were not solicited, as it was considered a more expeditious arrangement to call a conference of those contractors who had facilities which seemed to possess possibilities for mine-sweeper construction without undue interference with existing contracts for naval and merchant ship construction. As a result of this conference it was found possible to place contracts for the 24 vessels, which were accordingly awarded to eight contractors. The Harlan plant of the Bethlehem Shipbuilding Corporation accepted as their portion of the task a contract for the preparation of detail plans, the ordering of materials for all contractors, and the manufacture of all necessary patterns.

As a result of the diligent search which had been made for unused facilities, it became evident after the first award had been made for 24 vessels that more of this class could be constructed, which condition of affairs was promptly taken advantage of, and in July, 1917, the additional mine sweepers were ordered of three private yards and two assigned to the Puget Sound Navy Yard.

With 36 of these vessels placed, attention was directed to assisting the contractors to put their plants in such shape that construction might be started immediately upon the arrival of the first consignment of material. With but few exceptions it was necessary to add ways, tools, and handling devices and in some cases the reconstruction of an entire yard was required. Material orders were followed up, and by early fall materials were beginning to arrive in sufficient quantities to permit a real start in the way of construction.

The progress made at the outset was considered most gratifying, but a long period of winter weather set in which was most unusual in its severity and duration. In spite of these conditions, however, work at no time was completely suspended.

In January, 1918, it became apparent that the 36 mine sweepers already under construction would not prove sufficient for the needs in prospect, and it was accordingly necessary to arrange for the construction of an additional group of 18. Some few of the contractors had in the meantime made rather exceptional progress in the completion of their original contracts, and it was thought advisable to assign this new construction to them in order to take advantage of the experience their organization had obtained. Of these 18 vessels 14 were placed in private yards and the remaining 4 assigned to the navy yard, Philadelphia, thus providing for a total number of 54 mine sweepers, 5 being canceled eventually.

It had been expected that deliveries of the first completed mine sweepers might be made about February 1, 1918, but this was not accomplished until May 25, 1918, on which date the Todd Shipyard Corporation delivered the *Owl*, the first United States seagoing mine sweeper to be completed. This delivery took place but a few days before the commissioning of the *Kingfisher* at the Puget Sound Navy Yard. From this time on deliveries were made at rates varying from three to seven completed vessels each month.

All mine sweepers, with the exception of the *Kingfisher*, built at Puget Sound Navy Yard, were placed in service without the formality of the usual official

trials. In the case of the *Kingfisher*, a set of trials were held with most gratifying results. All requirements had been exceeded by a satisfactory margin, the only factor remaining unknown at the conclusion of the trials being the seaworthy qualities. About June 15, 1918, however, the *Kingfisher* sailed for Hampton Roads, and in extremely heavy weather which was encountered during the passage effectively demonstrated that the new class of mine sweepers would prove exceptional as regards their seaworthy qualities.

As the first mine sweepers became available they were pressed into service as seagoing tugs, for the need of this type of vessel was at the time great, indeed. As increasing numbers were completed they were promptly assigned to such service as most pressing needs dictated, but as events shaped themselves it was not until after hostilities had ceased that opportunity came to utilize these mine sweepers as such, in connection with the removal of the North Sea mine barrage, an undertaking which had lost none of its war-time hazards with the signing of the armistice and which was not completed until September, 1919. The first detachment dispatched for this duty included 18 of the new mine sweepers, which force was augmented from time to time until it comprised a total of 36 of this class of vessel.

As stated in the body of the narrative, the American Shipbuilding Co., of Cleveland, undertook, in the spring of 1917, the construction of two seagoing tugs, duplicating one of its earlier designs as represented by the *Piscataqua*, which had been purchased by the Navy in 1898 and had proven most satisfactory in service. These two tugs were named the *Allegheny* and *Sagamore*. Unfortunately they did not reach the Atlantic until after the opening of navigation in 1918.

When it became possible, in the spring of 1918, to place 25 additional ocean tugs, it was decided, in order to minimize delays, to duplicate the *Allegheny* and *Sagamore*, with a few minor changes, as they had been built to commercial standards, and detail plans were available. The characteristics are as follows:

Length over all, 156 feet 8 inches; length between perpendiculars, 149 feet 3½ inches; breadth, 30 feet; depth, 17 feet 6 inches; mean draft, 14 feet 7 inches; displacement, 1,000 tons; speed, 13 knots; propelling machinery, vertical triple-expansion, 31 by 33½ by 55½ by 42; indicated horsepower, 1,800; fuel, 260 tons, oil; cruising radius, at 10 knots, approximately 4,880 knots.

At the time instructions were received by the bureaus relative to arranging for the construction of 25 seagoing tugs, 40 smaller tugs for harbor use were required by the department. In view of the difficulty in placing further contracts for steel-hull construction, it was decided to construct these tugs of wood. This procedure presented the further advantage of being able to secure the most lively competition, as the field in wood construction for craft of small size had been intensively developed by the Bureau of Construction and Repair in the successful completion of a large number of submarine chasers.

In the development of the final design for these tugs the bureaus first investigated the various types of tug boats of this approximate size in commercial use. The design finally approved was developed with the idea of making the construction as simple as possible in order to reduce the time required for construction to a minimum. The "88-foot harbor tug," as these tugs were termed, embodied the following dimensions and characteristics:

Length, 88 feet; length between perpendiculars, 82 feet 2½ inches; breadth, 20 feet; depth, 10 feet 9 inches; mean draft, 8 feet 9 inches; displacement, 215 tons; indicated horsepower, 300; speed, 10 knots; fuel, 30 tons coal.

On May 21, 1918, bids were opened and, as was expected, a large number of bidders submitted proposals which insured competition and also the possibility of placing these contracts on a lump-sum basis. Contracts for 35 tugs were awarded to 13 private contractors, two tugs being ordered built at the Charleston Navy Yard and three at the New Orleans Naval Station. Work was started promptly, but it was apparent from the outset that serious delays would be occasioned in obtaining steel for the boilers. Deliveries in accordance with the contract delivery dates were to commence in the fall of 1918, but as anticipated, the delay in furnishing boilers interfered with this schedule and the first boat was not delivered until February, 1919.

Another project for tug construction was undertaken early in the year 1918, which was both interesting and profitable in the way of results obtained.

Officers in the Bureau of Construction and Repair, who had previously been assigned duty on the Pacific Coast, had closely observed a type of so-called "motor tug" which had been developed for commercial use and which seemed

to possess marked advantages as compared with steam-propelled tow boats of the smaller sizes. These commercial tugs ranged in length from 50 to 90 feet, the size in most general use being 65 to 70 feet. The advantages of this type of tow boat lay in the small crew required, usually three men, and the elimination, with the exception of crew hire, of standby charges. The propelling machinery consisted generally of an internal combustion engine of about 150 belt horsepower capable of burning distillate and so installed as to allow complete control by the helmsman in the pilot house, an arrangement which accounts for the very small crew required.

As the hulls were of wood and of small size the additional merits of quickness and cheapness of construction were possessed by this type of craft. These tugs were to be constructed for about \$30,000 each, in comparison with a cost of \$85,000 for steam tugs capable of doing apparently the same duty.

The desirability of determining the usefulness of this type of tug was at once recognized by the department, and after plans had been obtained the Mare Island Navy Yard was authorized, on April 29, 1918, to construct four of them with as much dispatch as possible.

By September the first of the four experimental motor tugs had been completed and found to be very satisfactory, with the result that on November 5, 1918, an order for 10 additional tugs of this type was placed with the Mare Island Yard. Two "65-foot motor tugs," as they came to be designated, were authorized for construction at the naval station, Pearl Harbor, in August, 1918, bringing the total of this type to 16, all of which have since been completed.

Schedules are appended showing distribution of contracts for mine sweepers, seagoing tugs, and 88-foot harbor tugs, with dates of keel laying and percentage of completion the beginning of November, 1918.

CONTRACTS FOR MINE SWEEPERS.

No.	Name.	Built by—	Keel laid.	Percentage completion, Nov. 11, 1918.
1	Lapwing.....	Todd Shipyard Corporation.....	Oct. 25, 1917	100
2	Owl.....	do.....	do.....	100
3	Robin.....	do.....	Mar. 4, 1918	100
4	Swallow.....	do.....	Mar. 18, 1918	100
5	Tanager.....	Staten Island Shipbuilding Co.....	Sept. 28, 1917	100
6	Cardinal.....	do.....	Jan. 11, 1917	100
7	Oriole.....	do.....	Mar. 6, 1918	100
8	Curllew.....	do.....	Apr. 1, 1918	91
9	Finch.....	Standard Shipbuilding Corporation.....	Aug. 22, 1917	100
10	Heron.....	do.....	Aug. 26, 1917	100
11	Conder.....	Consolidated Shipbuilding Corporation.....	do.....	14
12	Flover.....	New Jersey Dry Dock & Transportation Co.....	do.....	14
13	Turkey.....	Chester Shipbuilding Co.....	Oct. 19, 1917	95
14	Woodcock.....	do.....	do.....	91
15	Quail.....	do.....	May 14, 1918	69
16	Partridge.....	do.....	do.....	65
17	Fider.....	Pusey & Jones.....	Sept. 25, 1917	93
18	Thrush.....	do.....	May 27, 1918	64
19	Avocet.....	Baltimore Dry Dock Shipbuilding Co.....	Sept. 13, 1917	100
20	Bobolink.....	do.....	Oct. 29, 1917	96
21	Lark.....	do.....	Mar. 11, 1918	80
22	Widgeon.....	Sun Shipbuilding Co.....	Oct. 8, 1917	100
23	Teal.....	do.....	do.....	100
24	Brant.....	do.....	Dec. 8, 1917	100
25	Kingfisher.....	Puget Sound Navy Yard.....	Dec. 15, 1917	100
26	Rail.....	do.....	do.....	100
27	Pelican.....	Consolidated Ship Corporation (E. & P.).....	Nov. 10, 1917	100
28	Falcon.....	do.....	Nov. 14, 1917	100
29	Osprey.....	do.....	do.....	80
30	Seagull.....	do.....	June 15, 1918	60
31	Tern.....	do.....	Sept. 7, 1918	51
32	Flamingo.....	New Jersey Dry Dock & Transportation Co.....	Oct. 18, 1917	97
33	Penguin.....	do.....	Nov. 17, 1917	99
34	Swan.....	Alabama Dry Dock & Shipbuilding Co.....	Dec. 10, 1917	85
35	Whippoorwill.....	do.....	Dec. 12, 1917	72
36	Bittern.....	Shipbuilding Co.....	do.....	69
37	Sanderling.....	Todd Shipyard Corporation.....	May 27, 1918	79
38	Auk.....	do.....	June 20, 1918	71
39	Chewink.....	do.....	Aug. 8, 1918	52
40	Cormorant.....	do.....	Sept. 4, 1918	38
41	Garnet.....	do.....	Oct. 1, 1918	31
42	Goshawk.....	do.....	do.....	30

NAVAL INVESTIGATION.

CONTRACTS FOR MINE SWEEPERS—Continued.

No.	Name.	Built by—	Keel laid.	Percentage completion, Nov. 11, 1918.
43	Grebe.....	Staten Island Shipbuilding Co.....	May 25, 1918	60
44	Mallard.....	do.....	do.....	55
45	Ortolan.....	do.....	July 9, 1918	41
46	Peacock.....	do.....	Aug. 31, 1918	40
47	Pigeon.....	Baltimore Dry Dock & Shipbuilding Co.....	June 15, 1918	56
48	Redwing.....	do.....	Aug. 5, 1918	40
49	Raven.....	do.....	do.....	35
50	Shrike.....	do.....	do.....	31
51	Sandpiper.....	Philadelphia Navy Yard.....	Nov. 15, 1918	20
52	Vireo.....	do.....	Nov. 20, 1918	29
53	Warbler.....	do.....	Apr. 25, 1919	25
54	Willet.....	do.....	May 26, 1919	25

NOTE.—Contracts for mine sweepers 11, 12, 42, 49, and 50 canceled.

CONTRACTS FOR SEAGOING TUGS.

21	Bagaduce.....	Ferguson Steel & Iron Co.....	July 16, 1918	56
22	Tadousac.....	do.....	July 22, 1918	53
23	Kalmia.....	do.....	Aug. 23, 1918	34
24	Kawaydin.....	do.....	Aug. 23, 1919	30
25	Umpqua.....	do.....	Feb. 19, 1919	14
26	Wandank.....	do.....	Apr. 7, 1919	14
27	Tatnuck.....	Puget Sound Navy Yard.....	Dec. 7, 1918	5
28	Sunnadin.....	do.....	Dec. 3, 1918	5
29	Mahopac.....	do.....	Nov. 30, 1918	5
30	Sciota.....	do.....	do.....	5
31	Koka.....	do.....	do.....	5
32	Napa.....	do.....	Mar. 5, 1919	5
33	Pinola.....	do.....	Mar. 3, 1919	5
34	Algerna.....	Staten Island Shipbuilding Co.....	Jan. 6, 1919	20
35	Carrabasset.....	do.....	do.....	19
36	Contocook.....	do.....	Mar. 6, 1919	15
37	Iuka.....	do.....	Feb. 6, 1919	11
38	Keosanqua.....	do.....	do.....	11
39	Montcalm.....	do.....	do.....	11
40	.....	do.....	do.....	4
41	.....	do.....	do.....	4
42	.....	do.....	do.....	3
43	.....	do.....	do.....	3
44	.....	do.....	do.....	3
45	.....	do.....	do.....	3

OTE.—Tugs 40 to 45, inclusive, were subsequently canceled.

CONTRACTS FOR HARBOR TUGS.

No.	Contractor.	Keel laid.	Percentage completion Nov. 11, 1918.
46	Charleston Navy Yard.....	Oct. 17, 1918	20
47	do.....	do.....	22
48	New Orleans Naval Station.....	July 19, 1918	41
49	do.....	Aug. 26, 1918	33
50	do.....	Nov. 21, 1918	12
51	Chance Marine Construction Co.....	June 15, 1918	51
52	do.....	June 18, 1918	41
53	Clayton Ship & Boat Building Corporation.....	July 9, 1918	53
54	do.....	do.....	55
55	do.....	do.....	58
56	Eastern Shipyard Co.....	Aug. 5, 1918	43
57	Eastern Shore Shipbuilding Corporation.....	July 1, 1918	44
58	do.....	do.....	29
59	Great Lakes Boat Building Corporation.....	June 17, 1918	76
60	do.....	do.....	76
61	Greenport Basin & Construction Co.....	July 15, 1918	42
62	Hiltebrandt Dry Dock Co.....	July 18, 1918	44
63	do.....	July 30, 1918	44
64	do.....	Aug. 17, 1918	28
65	do.....	Aug. 19, 1919	26

CONTRACTS FOR HARBOR TUGS—Continued.

No.	Contractor.	Keel laid.	Per-centage completion Nov. 11, 1918.
66	Jacob, Robert.....	July 2, 1918	59
67	do.....	do	51
68	do.....	do	40
69	do.....	July 3, 1918	37
70	do.....	July 5, 1918	37
71	Luders Marine Construction Co.....	July 1, 1918	55
72	do.....	July 2, 1918	46
73	do.....	Aug. 28, 1918	44
74	do.....	Sept. 30, 1918	36
75	Mathis Yacht Building Co.....	July 31, 1918	35
76	do.....	do	35
77	New York Yacht, Launch & Engine Co.....	July 27, 1918	66
78	do.....	July 27, 1917	57
79	do.....	Aug. 5, 1918	47
80	do.....	Aug. 14, 1918	34
81	do.....	Aug. 21, 1918	30
82	Vineyard Shipbuilding Co.....	June 5, 1918	65
83	do.....	July 10, 1918	62
84	Wheeler, Howard E.....	June 15, 1918	61
85	do.....	June 17, 1918	61

PRODUCTION OF SEAPLANES.

The bureau upon the entry of the United States into the war was not without experience in seaplane design and construction, and the theoretical and technical knowledge necessary to undertake the war program was, to a large extent, already available. Prior to 1916 no appropriations were made specifically for aircraft purposes, but funds were allotted by the department for aeronautical experiments as follows: 1912, \$25,000; 1913, \$10,000; 1914, \$10,000; 1915, \$10,000; and in 1916 the first appropriation was made for naval aeronautics in the sum of \$1,000,000. These funds had been spent in the construction of about 95 seaplanes for training purposes, and the establishment of the air station at Pensacola for the training of aviators and the testing of experimental seaplanes.

The first production order for seaplanes in the United States was placed in the fall of 1916 with the Curtiss Co. for 30 type N-9 training machines. Previously no satisfactory type had been developed and the preparations for war practically date from this order. By the spring of 1917 large classes of aviators were in training on these machines.

With the declaration of war the first requirement was for more training machines and the Curtiss Co. was given an order for 64 more N-9's and 76 of a larger type designated as R-6. These orders filled the available capacity of the Curtiss Co., which at that time had large orders for training airplanes from the Army and the British Government. To permit expansion of the training program, additional orders were placed with each of the six other aircraft manufacturers for sample training planes of their design. Several satisfactory types were submitted for test and orders were placed in the summer of 1917 as follows: Burgess Co., of Marblehead, 12 planes of Burgess design, plus 30 Curtiss N-9's; Boeing Co., of Seattle, 50 planes of Boeing design; Aeromarine Co., of Keyport, N. J., 200 planes of Willard design; Curtiss Co., of Buffalo, 15 training boats type "F" and 122 R-6's, both of Curtiss design. These orders were delivered at a satisfactory rate and the training of aviators was at no time held back for lack of satisfactory training planes. The fact that the bureau was able to proceed with confidence to produce these training seaplanes is due to the experience gained in 1916. A satisfactory type, N-9, had been developed by the Curtiss Co. in cooperation with the bureau, and it was not difficult to arrange for other firms to produce similar planes equal or superior to it.

The development of the N-9 was a fundamental without which the entire naval air effort would have broken down. Its conception was simple in the extreme. In the summer of 1916 there had been a succession of fatal accidents with the pusher seaplanes then in use and flying at Pensacola had

come to a standstill. The chief constructor sent for Mr. G. H. Curtiss and proposed to him that he take the existing Curtiss JN Army plane, place a pontoon under it, add a specified amount to the wing area to carry the extra weight, and add specified amounts to the tail areas to give stability. The result was the N-9, which proved the remedy for the accidents at the flying school.

With the training program well under way, it remained to determine what part naval aircraft would play in the war and to provide the necessary material. At first it was not known whether the Navy would send aircraft abroad at all, but it was decided by September, 1917, that the Navy should operate 15 seaplane stations on the coasts of France and Ireland from which seaplanes would patrol the submarine-infested coastal waters through which American troop and supply ships were to pass.

Attempts were made to obtain information from abroad of any successful types in order that their manufacture might be undertaken, and in July, 1917, a board of officers was sent to England, France, and Italy, to obtain this information at first hand. This board on its return, September 1, 1917, reported that there was no wholly satisfactory foreign seaplane suitable for coastal patrol; that foreign development had concentrated on the production of land machines, and that American types equipped with the new Liberty engine would be superior to any abroad. The Joint Army and Navy Technical Board, acting upon this information, and with the knowledge that 15 coastal air stations abroad would be operated by the United States Navy, prepared a building program which was approved by the Secretary in October, 1917.

This initial program provided for the first equipment of stations abroad, advanced training in this country, and replacements for the period of a year, and included 1,185 single Liberty-engine flying boats (HS-1) and 235 twin Liberty-engine flying boats (H-16); two types only, and both American designs (Curtiss). Among reasons for this policy were (a) the engine had been demonstrated to be satisfactory; (b) these flying boats had been demonstrated to be superior to any others; (c) provision of but two types with a single type of engine simplified production and maintenance; (d) two types of flying boats were necessary as the large boats could not be constructed in sufficient quantities, involved shipping difficulties, and drew too much water for use on certain of the French stations.

Again, as in the case of the training planes, the bureau was well prepared in the technical sense and could proceed with confidence to quantity production without much time lost in experiment. The problem was, of course, simplified by the requirement of but two types.

The HS-1 was developed from a Curtiss design known as H-14, which was brought out in the summer of 1917 with twin 100-horsepower engines. It was too heavy for the power and was a failure. The Curtiss Co. then replaced the twin 100-horsepower engines by a single 200 horsepower-engine. The boat then performed much better and while still underpowered, gave considerable promise. The bureau was in close touch with this development and when the Liberty engine seemed to be successfully tested on the bench, arranged to have one of the experimental engines assigned to try in an HS boat. A contract was made with Curtiss to install this engine and on October 21, 1917, successful trials were held over Lake Erie, at Buffalo. This was the first time a Liberty engine was put into the air. There had been a friendly race with the Army to see which service would first make use of this remarkable new engine.

The boat was pronounced successful by a naval trial board, and arrangements made for its production by the Curtiss Co. to the limit of its capacity. In order to provide additional units, the department purchased for \$50,000 the unlimited production rights from the Curtiss Co. and placed orders with five other concerns to build HS boats to Curtiss plans.

The first model, known by the type symbol HS-1, was a typical Curtiss type of flying boat, having a length of 38 feet and a wing span of 62 feet. The gross weight in the air of 5,900 pounds included a crew of two men, one machine gun, and two 180-pound bombs. The maximum speed of 87 miles could be maintained for four hours. After production had got well under way, information was obtained that the 180-pound bomb was not really effective against submarines and heavier bombs, as well as a radio outfit, would be needed. Obviously, the extra could be carried only if the fuel supply were cut down, which was not advisable. The solution was found in an increase in the wing area of the boat, by which a greater load could be carried in the air. The bureau

designed a 6-foot wing panel to be inserted outboard of the engine section on each side and a larger rudder, which could be supplied to the HS-1 boats, converting them to model HS-2 without further change. This increased the span to 74 feet and permitted a total weight of 6,500 pounds. The radio, two 230-pound bombs, machine gun, and two pilots were carried with ease, and, furthermore, the endurance was increased to 4.4 hours at full speed and 6.5 hours at cruising speed. The full speed was only reduced 2 miles per hour by this change in design, which at once gave us a vastly improved machine without interference with production. It is believed this is a unique example of a fundamental design change which did not cause as much trouble as benefit.

The production of HS-2 boats is summarized in the following table:

	Number ordered.	Shipped abroad.	Delivered.	Canceled after armistice.
Curtiss A. & M. Corporation, Buffalo, N. Y.	674	213	674	.....
L. W. F. Engineering Co., College Point, L. I.	300	10	250	50
Standard Aircraft Co., Elizabeth, N. J.	150	6	80	70
Gallaudet Aircraft Corporation, East Greenwich, R. I.	60	.....	60	.....
Boeing Airplane Co., Seattle, Wash.	50	.....	25	25
Loughead Co., Los Angeles, Calif.	2	.....	2	.....
Total	1,236	229	1,091	145

With these concerns the following yacht-building firms worked as subcontractors for the boat hulls: College Point Boat Co., College Point, N. Y.; Geo. Lawley & Sons, Neponset, Mass.; Unit Construction Co., Philadelphia, Pa.; Mathis Yacht Building Co., Camden, N. J.; L. E. Fry & Co., Clayton, N. Y.; Palmer-Simpson Co., Saranac Lake, N. Y.; Mathews Boat Co., Milwaukee, Wis.; Fay & Bowen Engine Co., Geneva, N. Y.; Niagara Boat Co., Tonawanda, N. Y.

The other type adopted for production by the Joint Army and Navy Technical Board was the H-16, to be fitted with twin Liberty engines of 400 horsepower each. This type had been developed during 1915 and 1916 by the Curtiss Co. and the British Admiralty. The original model had been the Curtiss *America* of 1914, built for a proposed trans-Atlantic attempt. The *America* was not successful, because no high-power engines were available, but the British Admiralty ordered a number of them and fitted them in England with two French Anzani engines of about 100 horsepower each, known as "small America's," and they were used to patrol submarine areas. Curtiss then designed the H-12, a larger machine on the same lines, which was fitted in England by the Admiralty with twin Rolls-Royce engines. The Admiralty redesigned the hull of the H-12 to provide greater strength and introduced for the first time the steep Vee bottom, with double steps. The Curtiss Co. was given, in 1917, a large order for the British redesigned boat, known in England as F-3, or "Large America," and in the United States as H-16. This machine was already in production at the Buffalo works of the Curtiss Co., but the design was arranged to mount Rolls-Royce engines. It became necessary to redesign extensively to provide for Liberty engines. As engines were installed in England, none of the H-16's had ever been completed or flown in the United States.

The redesign of the H-16 to take the Liberty engine necessarily involved extensive changes, but there was no time to work out a trial installation. Production was started at once, and by a combination of good luck and good management no serious difficulties developed. It should be remembered that the engine is the heart of a flying machine, and a complete change of power plant involves in addition to extensive structural revisions alterations in balance and stability.

The H-16 is a biplane flying boat 46 feet long with wings of 95 feet span. The twin Liberty engines develop 360 horsepower each (if low compression) or 400 horsepower (if high compression). The weight empty is 7,400 pounds and loaded 10,900 pounds. The useful load includes four men, radio, two 230-pound depth bombs, and four machine guns. The maximum speed is 95 miles. At this speed the endurance is four hours, but patrols at cruising speed of nine hours were made in the war zone.

During 1917 the British Admiralty redesigned the *H-16* again to produce a boat to carry more depth bombs and to have greater endurance. A sample machine was successfully developed in the spring of 1918 and plans sent to the United States. In this case the change to get greater load capacity was not at all like the *HS-1*, *HS-2* change noted above, but an entirely new design down to the last bolt. The new type *F-5* had an allowable full load of 13,000 pounds and could carry four depth bombs against two for the *H-16*, besides having a cruising endurance of 11 hours against 9 for the *H-16*. The maximum speed was about 7 miles less.

The advantages of the new type were obvious, and during 1918, as the *H-16* contracts were completed, orders for type *F-5* were placed with the same concerns. It should be noted that the British plans for the *F-5* were taken from a sample machine and were in no way production plans. Also the details of construction were impossible for quantity manufacture and the design provided for Rolls-Royce engines. The machine was completely redesigned at the naval aircraft factory to adapt it for quantity production on the assembly system, to use American standard parts and practices, and to install twin Liberty engines.

The production of *H-12*'s, *H-16*'s, and *F-5*'s is summarized in the following table:

	Ordered.		Delivered.	Shipped abroad.	Canceled after armistice.
	Number.	Biplanes.			
Curtiss A. & M. Corporation, Buffalo, N. Y.....	19	H-12....	19	.....	.....
	74	H-16....	74	62	.....
	410	F-5....	60	.....	350
Curtiss Engineering Corporation, Garden City, L. I..	50	H-16....	50	18	.....
Naval Aircraft Factory, Philadelphia.....	150	H-16....	150	78	.....
	680	F-5....	137	.....	543
Canadian Aeroplanes (Ltd.), Toronto, Canada.....	50	F-5....	30	1	20
Total.....	1,433	.....	520	150	913

In December, 1917, the naval aviation forces operating abroad, in conjunction with the British Admiralty, had found the twin-engine flying boat (the *Large America* of the Royal Naval Air Service) a very superior fighting craft, and, following recommendations by Admiral Sims, a greatly increased program, calling for a total of 864 of the twin-engine flying boats was authorized on December 26, 1917, for delivery by the spring of 1919. That added 629 boats to the program of 235 of October, 1917. The firms then manufacturing naval aircraft could not handle any larger orders. In those plants there were on order for the department 19 *H-12*'s, which were suitable for training but not for patrol, and 134 *H-16*'s for delivery in the first six months of 1918. The Curtiss plant at Buffalo could deliver 150 and the naval aircraft factory 100 units. That left 480 boats to be secured from some new source, to be organized from the ground up. How was the situation to be met? Allowing three months for building a new plant and one month for equipping and organizing, work might start in four months, and deliveries begin before six months had elapsed. After the labor and material were assembled the capacity of the plant must be about 90 boats per month. Such a project would have required a very large plant, doing a gross business of approximately \$36,000,000 per annum, exclusive of engines, and its creation appeared impossible in the time available. Accordingly, after careful study, a plan was worked out for coordinating existing yacht yards, as well as metal and wood-working shops, in manufacturing hulls, panels, and parts for delivery to a central organization in the nature of a great storehouse or progressive assembly plant. It was not practicable, because of the financial aspect, to get a private manufacturer to provide this large assembly plant, and since the plant must be built by the Government, it was obvious that it should be built as an addition to the existing naval aircraft factory. The extension was approved by the Secretary on February 9, 1918, and construction began at once.

Production in appreciable quantities was first reached in April, 1918. *HS-1*'s were being delivered at the rate of 6 per week and *H-16*'s at the rate of 3 per week, and these rates were constantly increasing, when, in June, the program

was again augmented, for delivery by the summer of 1919, by 700 F 5's, 300 HS-2's, 300 F boats and 200 N-9's. In September this was increased by 100 F boats.

By the summer of 1918 aircraft production was well under way and had reached its height about September 1, when deliveries were being made on twin Liberty engine flying boats at the rate of 13 per week, from the Naval Aircraft Factory, Philadelphia, Pa.; the Curtiss Aeroplane & Motor Corporation, Buffalo, N. Y.; the Curtiss Engineering Corporation, Garden City, N. Y.; and the Canadian Aeroplanes (Ltd.), Toronto, Canada. Single Liberty engine flying boats were being delivered at the rate of 38 per week, from the Curtiss Aeroplane & Motor Corporation, Buffalo; the L. W. F. Engineering Co. (Inc.), College Point, Long Island; the Standard Aircraft Corporation, Elizabeth, N. J.; and Gallaudet Aircraft Corporation, East Greenwich, R. I. School or training machines were being delivered at the rate of 32 per week, from the Burgess Co., Marblehead, Mass.; and the Aeromarine Plane & Motor Corporation, Garden City, N. Y.

Hulls for the naval aircraft factory's production, and also for a number of the above-mentioned private concerns, were being constructed by the Herreshoff Manufacturing Co., Bristol, R. I.; Robert Jacobs, City Island, N. Y.; Geo. Lawley & Sons Corporation, Neponset, Mass.; L. E. Frye Co., Clayton, N. Y.; Mathews Boat Co., Port Clinton, N. Y.; Unit Construction Co., Philadelphia, Pa.; Mathis Yacht Building Co., Camden, N. J.; Chas. L. Seabury Co. and the Gas Engine & Power Co., Morris Heights, N. Y.; Niagara Boat Co., Tonawanda, N. Y.; Albany Boat Co., Albany, N. Y.; H. B. Nevins, City Island, N. Y.; Murray & Tregurtha Co., Boston, Mass.; Palmer Cimpson Co., Saranac Lake, N. Y.; College Point Co., New York; and a large number of wings, tail surfaces, and metal fittings were being manufactured by the Curtiss Aeroplane & Motors (Ltd.), Toronto; the Victor Talking Machine Co., Camden, N. J.; and Lock & Co., New York City.

In the fall of 1918, however, it was found that aircraft were being manufactured at a rate in excess of that required both for training and for service abroad, and the program was reduced early in November by 550 F-5's, 248 HS-2's, and 300 school or training machines. As soon as the armistice was signed the rate of production was slowed down as rapidly as possible and cancellation on outstanding orders was effected which further reduced the program by 145 HS-2's, 512 F-5's, and 100 school machines. In completing the few remaining units, the manufacturers were able to liquidate their large labor force and the industry was gradually reduced to a peace basis.

The construction of machines under this program was allotted to manufacturers already experienced in the art of airplane construction, as it did not appear wise to place orders with inexperienced concerns or to promise them orders which might drain raw materials already scarce and skilled labor from the established builders who were being pressed to expedite delivery. Many offers of facilities from manufacturers who had not previously built aircraft, and also from inexperienced aircraft concerns, were received by the bureau, and in every case hearing was given and careful investigation made. It was necessary in all production matters to cooperate closely with the Army by direct conference and all especially important matters were submitted to the Aircraft Board for approval and coordination. This arrangement worked well and eliminated competition and duplicate efforts.

Before placing the larger contracts prices and terms were submitted to the Aircraft Board for approval, although final approval was, of course, in the hands of the Secretary of the Navy.

At first school planes were purchased on a flat price basis, but when the large production contracts for the large service planes were wanted it was impossible to fix a fair price due to a complete lack of experience in building these types in the quantity contemplated. Furthermore, the material markets were becoming demoralized and there was no means of predicting future developments. The straight "cost-plus" contract was objectionable on many grounds, and a form of contract was evolved with the assistance of the Aircraft Board which provided for paying the contractor actual cost, plus a fixed profit of 15 per cent on an agreed on estimated or "bogey" price, plus one-quarter of any difference or saving the contractor might make under such "bogey." This form of contract was in the main very satisfactory and was used until late in 1918, when the mandatory "Navy order" was put in effect. The latter was less satisfactory as it did not contain the incentive to beat "bogey" and involved equally elaborate accounting system.

The Aircraft Board assigned the following aircraft manufacturers to accept orders from the Navy only: Aeromarine Plane & Motor Co., Keyport, N. J.; Burgess Co., Marblehead, Mass.; Victor Talking Machine Co., Camden, N. J.; Boeing Airplane Co., Seattle, Wash.; Curtiss Engineering Corporation, Garden City, Long Island, N. Y.; Gallaudet Aircraft Corporation, East Greenwich, R. I.; Canadian Aeroplanes (Ltd.), Toronto, Canada; L. W. F. Engineering Corporation, College Point, Long Island, N. Y.; Curtiss Aeroplane Co., Toronto, Canada; and assigned a fraction of the capacity of Curtiss Aeroplane & Motor Co., Buffalo, N. Y.; Standard Aircraft Corporation, Elizabeth, N. J. The other plants in the country were assigned to the Army.

The producing capacity so assigned was adequate to meet the Navy's requirements, and by September, 1918, production was in excess of requirements, all air stations at home and abroad had a full complement of seaplanes and shipments abroad were stopped temporarily. The armistice intervened before shipments had to be resumed.

In December, 1917, when manufacturers started building naval aircraft on a production basis, it was seen that it would be impossible to secure in the open market various materials, such as spruce, fabric, tape, dope, veneer, and steel tubing; and it became clear that the supply of them must be controlled by the Government. Of such materials the most difficult to obtain appeared to be spruce. The War Department was just starting its development of Sitka spruce on the Pacific coast, and the Navy was unable to secure definite assurance that Navy contractors would receive a quantity sufficient to meet its needs. A considerable portion of the New England spruce output had been found suitable for airplane construction before the war; had, in fact, been purchased by Germany for that purpose; but at this time was apparently being overlooked. As the emergency for spruce became acute, it was deemed advisable to determine if suitable material could not be secured from the New England woods, and an officer from the Bureau of Construction and Repair was sent to investigate. Early in January, 1918, he reported that approximately 1,000,000 feet per month of spruce, suitable for aircraft construction, could be secured from New England sources, at prices ranging from \$90 per thousand feet to \$125 for various lengths, and an agreement was reached with the Army whereby the Navy was to have the exclusive right to develop that territory.

The Navy Department then established an office in Boston, Mass., so as to keep in close touch with the New England spruce-producing mills, to secure information, to arrange contracts, and in other ways to safeguard an adequate supply of airplane spruce, the policy settled upon being a decision to use the New England lumber as a reserve stock in the event that the War Department should be unable to furnish Navy contractors with the required amount of Sitka spruce.

From February to May, 1918, about 1,000,000 feet of New England spruce was produced each month, but from June to October that quantity was reduced, as the need was not so urgent. From January to May, 1918, deliveries of Pacific coast spruce were not coming through in a satisfactory manner, and an effort was made to use the New England wood. However, owing to the fact that much of it contained small pine knots and was in shorter lengths than the Pacific coast spruce, contractors were reluctant to use it, and, in fact, its use was difficult under the interpretation of the specifications existing at that time. Accordingly, during May and June, 1918, detailed specifications were issued so as to allow the use of the type of spruce coming from New England, and in August, 1918, manufacturers of school seaplanes were required to build wooden part of laminated and spliced construction, and hence a larger quantity of New England spruce was used.

By May, 1918, about 70 New England mills were turning out spruce suitable for airplanes, and it became apparent that the production was greater than the needs of the Navy. Accordingly, efforts were made to dispose of the excess, various allied Governments were approached on the subject, and the Navy was successful in arranging a contract for 1,000,000 feet with the British war mission. When the first shipments reached England the British war mission to this country was notified that the material was satisfactory and was authorized to procure a further amount. Accordingly, shipments were then made to the British at the rate of approximately 500,000 feet per month under that contract and under a subsequent one calling for 3,000,000 feet.

Early in July, 1918, the War Department began to run short of strut material, and the Navy was asked to furnish various quantities to manufacturers of airplanes for the Army. In compliance with that request, New England spruce was supplied to the Sturtevant Aircraft Corporation, the Metz Co., the Wilson Body Co., the Packard Motor Car Co., and the Engle Aircraft Co., all contractors to the Army, the larger part of this material being strut stock suitable for the manufacture of De Havilland and JN-4 struts. The Army contractors first accepted it hesitatingly, as many were dubious about the use of material containing pin knots, but as soon as it was found that it worked as well, if not better, than Sitka spruce the Navy was in receipt of insistent orders from those same manufacturers for a further supply, and up until the signing of the armistice the Navy supplied them approximately 1,000,000 feet.

Soon after the shipment of spruce to the British began to go forward it was determined that it would be necessary to dry spruce down to a point that would permit its being shipped abroad in confined quarters. In order that the necessary drying could be accomplished under the control of a Navy inspector, it was found advisable to secure a yard where that material and material for the Army and the Navy contractor could be selected and sorted out. A yard at the foot of Southampton Street, Boston, Mass., was selected and secured at a nominal rental—\$4,000 per year—and stocks of New England spruce were built up, nearly 6,000,000 feet of lumber being handled there.

When orders were placed for Sitka spruce prices ranged as high as \$350 per thousand feet b. m. In October, 1918, however, A-grade spruce was charged at \$642 per thousand, and the Navy was informed that it was the intention of the War Department to amortize in a period of 10 months its entire Pacific coast lumbering establishment, cut-up plant, railroads, etc., and that it was necessary to charge those prices to absorb that overhead.

While many of the mills on the Pacific coast were cutting spruce for the Army's cut-up plant, there were a few small mills, not considered by the War Department, which had a small output of Sitka spruce. This stock was sold to various New England mills holding Navy contracts, and Sitka spruce was shipped in from the West over the Canadian Pacific Railroad, sorted in New England, selected by Navy inspectors, and purchased at the same prices paid for New England spruce, viz., \$125, \$110, and \$100 per thousand feet for A, B, and C grades. This material was found to be just as satisfactory as that stock supplied by the Army at \$642, \$350, and \$160 per thousand for A, B, and C grades, respectively.

The Army's airplane program required a tremendous quantity of airplane wing covering fabric, and it was thought best to pool the interests of the Army and the Navy in securing it. Accordingly, the control of the mills capable of producing this material was centralized in the Army, with the understanding that the Navy requirements would be taken care of. At no time during the active production period of the Navy seaplanes was there any great shortage in fabric or tape; but when a slight shortage did exist every effort was made by the Army to keep Navy contractors supplied.

The manner in which fabric was supplied was at all times very satisfactory, and shipments in many instances were made within 24 hours after the receipt of the Navy's request.

As the Navy's program grew it was found that a larger quantity of acetate dope than was first anticipated would be required. At the same time there was a shortage of cellulose acetate, and it was therefore decided that the control of that necessary product should be centralized in the War Department, as had been done with tape and fabric. From January until July, 1918, however, there was no difficulty in securing sufficient acetate dope to meet the Navy's needs, due largely to the fact that the Army's airplane production had not yet reached any large volume. In July Army production increased greatly, and there was considerable difficulty for both Army and Navy in securing the required amount of acetate dope, but at no time was Navy production held up for the lack of acetate dope.

Nitrate dope was secured by the Navy from the Du Pont Co., but owing to the shortage of nitrates the War Industries Board was reluctant to release the necessary raw materials. However, by ordering merely enough to satisfy immediate needs, maintaining low stocks, and watching them very carefully the bureau was able to secure sufficient nitrate dope.

From May to October, 1918, it was found that some materials were running short, especially tubing and waterproof plywood. While it was unnecessary in

many instances to purchase those materials for Navy seaplane contractors, it was necessary for the Navy to help seaplane contractors secure them, as production could be held because of the lack of any one. Many delays in delivery of materials were brought about by improper handling of priorities certificates by contractors, but Navy inspectors at contractors' works soon found the proper method of securing quick deliveries of materials through the departments' co-operation and, except in rare instances, little difficulty was experienced in securing adequate stocks to maintain production at contractors' plants at all times.

During 1918 several new types of seaplanes were constructed for the Navy Department, and trials were conducted to determine their suitability for special service, either as training or as service machines. The order for each of these seaplanes was placed with the definite purpose of development of some particular need in the future program, if the war had continued.

With reference to training machines of the flying-boat type the Curtiss model F had proved itself the most satisfactory in use, but it was desired to develop a machine of better structural character along the same lines. Encouraged by the Navy Department the Aeromarine Plane & Motor Co., developed its model 40-A and the Curtiss Engineering Corporation its MF (modified F) boat, both of which were recommended for adoption by the trial board and for which contracts were awarded.

Several service machines of particular interest, some of which presented a distinct advance in airplane design, were constructed and tried out in the summer and fall of 1918. Of these the most important are the NC-1, the Curtiss model 18-T, or Kirkham fighter, the HA, and Gallaudet or D-4.

The NC-1 is a large flying boat, built by the Curtiss Engineering Corporation, under the direction of certain officers of the Bureau of Construction and Repair who were responsible for the design. It is a biplane, and has a spread of 126 feet for the upper wing, and a length of 68½ feet from the bow to the end of the tail surfaces. The weight, fully loaded, is 22,000 pounds, the bare machine weighing 13,000 pounds. It is equipped with three Liberty engines, each located in a nacelle between the wings. Of particular note is the hull, which somewhat resembles a large pontoon in appearance, and which has proved especially efficient in planing and get-aways. The NC-1 is the machine which made a flight at Rockaway, N. Y., on November 27, 1918, with 51 men aboard, thereby establishing the world's record for passengers carried.

After the armistice four NC boats were fitted with four Liberty engines for the trans-Atlantic flight.

The Curtiss model 18-T, or Kirkham fighter, is a land machine, designed and constructed for the Navy Department by the Curtiss Engineering Corporation and intended for the protection of those bombing squadrons along the coast of France which required extremely fast machines. It is a triplane of 32-foot wing spread and has 2,800 pounds weight when loaded. It is equipped with a Curtiss (K-12) engine, a new type engine which was used for the first time in this machine. The Curtiss 18-T made 162 miles an hour, a world's record. It carried two men, two synchronized guns forward, and two Lewis guns in the rear cockpit.

The HA is a single-pontoon seaplane, equipped with one Liberty engine, constructed by the Curtiss Engineering Corporation for the Navy. It has a wing spread of 36 feet. This is a two-seater machine, equipped with two synchronized machine guns forward, and two Lewis guns in the rear cockpit. Its maximum speed of 125 miles per hour is a remarkable performance for a seaplane.

The Gallaudet D-4 is a two-seater seaplane with a single Liberty engine driving a propeller by means of a ring gear mounted on the fuselage aft of the wings. The machine is designed as a fighter, and with 2 men and 434 pounds of machine guns and bombs made 119 miles per hour. At this speed the endurance is 2.5 hours. The design is distinctly novel in that it gives excellent view and field fire forward.

DESIGN AND CONSTRUCTION OF THE NC FLYING BOATS.

In June, 1917, due to the lack of any conclusive information regarding the work of the allied Governments and to varied and contradictory recommendations which had been received from the War Department and the Admiralties of Great Britain and France as to the types of planes which should be adopted

by this country, an informal joint Army and Navy board was appointed to proceed to Europe and to make a study of the air matters among the principal Governments engaged in the war against Germany, and to recommend the steps to be taken by our Government in building up its own air services and in carrying out a definite air policy.

The personnel of this committee was Maj. R. C. Bolling, Capt. V. E. Clark, Capt. E. S. Gorrell, Capt. Howard Marmon, and Capt. Hughes representing the Army, and Lieut. W. G. Childs and Commander G. C. Westervelt representing the Navy. In accordance with instructions to the committee, they proceeded to Europe, arriving in London the latter part of June. At this time the naval activities of the United States Government were directed mainly against the submarines. The center of naval activities was the American Embassy in London, and by this time the naval officers had become keenly aware of the grave menace of the German submarines. At the embassy all discussions centered around this subject, and it was evident that fuller methods of combating the submarine must be provided and provided very quickly. Accordingly, there began a particular and detailed study of the types of aircraft for use against the submarine menace. This study was carried on in England, in France, and in Italy, and, as a result of this study, it was concluded that the quickest way for the Navy to obtain results in the air would be with kite balloons, for observation purposes, anchored to a destroyer or some other type of patrol vessel, and with seaplanes of the flying-boat type, as differentiated from the hydroaeroplane, for patrol purposes and for the bombing of submarines.

At this time the largest flying boat in use for patrol work was the *H-12*, a craft equipped with two Rolls-Royce motors, with a lifting capacity of approximately 9,000 pounds, and a cruising radius of slightly over 500 miles. This type of boat had proved successful in patrol work, except for its limited cruising radius. Because of the fact that the regions in which submarines were active were often a considerable distance from the naval air base, the entire time available for patrol was often used in flying to and from a base. It was very desirable that larger craft should be provided—craft which could not only carry a heavy load of bombs but which also had sufficient radius of flight for the trip from the naval bases to the patrol regions and return.

The commission mentioned above returned to this country in the latter part of August, 1917. When the report with its recommendations had been presented, it was decided by the chief of bureau to go much farther, having in view design of a boat able to fly itself, if necessary and possible, across the ocean, with capacity to proceed before daylight from the base to the patrol area, to spend the day in patrol work or in convoy, and to return to its base after dark; in addition to this, to be able to carry several bombs of a size to increase very materially the danger zone in the bombing of submarines. This decision was made notwithstanding all information available regarding the design and construction of flying boats of great size indicated the enormous difficulty of such a project. The trend of opinion of the European air ministries was against such large sizes, and, as far as the methods of construction and the motor powers available at that time were concerned, the limit of size was generally believed to have been practically reached.

This was the inception of the design of the NC type of flying boats. After some further consideration, it was decided to call upon Mr. Glenn Curtiss, at that time the American most experienced in the design and construction of seaplanes, for his suggestions as to the type of seaplane which might best fulfill the requirements. Mr. Curtiss came to Washington, and, after a conference, it was decided to investigate the possibilities of a seaplane capable of sustained flight from Newfoundland to Ireland, if possible, or at least capable of flight from Newfoundland to the Azores. Certain definite conclusions reached by the bureau regarding the probable type of such a seaplane were given Mr. Curtiss for his examination.

Within a few days after this conference Mr. Curtiss returned to Washington with preliminary plans for two types of flying boats embodying in their general characteristics the conclusions of the bureau—one a five-motor, 1,700-horsepower machine, and the other a three-motor, 100-horsepower machine. Both were biplanes, similar in design, and differing only in size, this being dependent upon the available horsepower. The hulls of these machines differed greatly from conventional design. They were much shorter than the conventional boat hull, were shaped more like the pontoon of a seaplane, and with the intention

that the tail surfaces, instead of being supported by the hull, would be carried by a system of outriggers in part from the upper wing beams and in part from the stern of the hull. These suggestions covered rough sketches only of the proposed machines, together with certain estimates based on extensive experience as to weights and sizes. Following a thorough discussion of the matter it was decided not to attempt the construction of the large size of 1,700 horsepower but to develop a smaller one of approximately 1,000-horsepower.

In taking up the design of such seaplane, it was very evident that radical changes in the method of design must be followed. With the methods of design at the time almost generally employed the limits of size had been practically reached. The largest machine at that time in use was the Handley-Page night bomber. In the design of this airplane new and advanced methods had been employed, and to its study much consideration was given. This machine had a total lifting capacity of 11,000 pounds and was equipped with two 275-horsepower Rolls-Royce motors. The deadweight was approximately 6,600 pounds, and the allowable weight for oil, gasoline, cooling water, crew, and miscellaneous supplies, which grouped together and called by the name of "useful load," was 4,400 pounds. This made the value of the useful load 40 per cent of the gross load, which was the maximum percentage which had been obtained in any large machine. Naval Constructor Hunsaker in estimates which had been made of various planes of an average lifting capacity of 2,500 pounds had found that the percentage useful load was from 30 to 32 per cent. The proposed design for the 1,000-horsepower flying boats called for a total load of approximately 25,000 pounds. In comparing this machine with the Handley-Page night bomber it was apparent that the design of the Handley-Page would have to be improved upon and the percentage of the useful load made at least as high if this design was to be considered successful. One possibility of improvement of the design was in the use of the Liberty motor, which was at that time undergoing its first tests and which gave promise of being lighter for its power than any other motor then in use.

It has been found that in the construction of airplanes and seaplanes certain unescapable deadweights, such as engines, propellers, radiators, gasoline and oil tanks, crew, etc., must be allowed for. The total weight of the machine will be, roughly, from three to four times the sum of these deadweights. If in any manner, such, for example, as by a reduction of the weight per horsepower of the motor, 100 pounds can be saved in the weight of any of these parts there will be a reduction in the total weight of the machine of from 300 to 400 pounds with a considerable increase in the weight of gasoline which can be carried. There were also possibilities of reduction in the weight of structural elements, such as wing beams, ribs, wing struts, compression struts, fittings, etc. If by any method of design it were possible to reduce the weights of these parts without reducing their strength there would again be a gain in the fuel-carrying capacity of the machine over that possible with methods of construction at that time in use.

The points outlined above give some idea of the problem of design which it would have been necessary for the Bureau of Construction and Repair to handle in the preparation of plans for this boat. Because of the insufficient technical force at the bureau and the difficulty in increasing this force it was decided that the best method of procedure would be to transfer the physical work of the design of this machine to the Curtiss Aeroplane & Motor Corporation, at Buffalo. The Curtiss Aeroplane & Motor Corporation was the only aeronautical manufacturing company which had a well-organized design force in any way capable of handling this problem. On the transfer of this design to the Curtiss organization, it was intended that the Navy would exercise close control over the design, and that the Curtiss organization should work out all details under Navy supervision.

When plans for the design had been carried this far it became necessary to obtain the cooperation of the other bureaus which would be concerned in the construction of such a craft and to obtain the approval of the Secretary of the Navy. The Division of Operations and the Bureau of Steam Engineering agreed to the carrying out of these plans, and the entire proposition was then submitted to the Secretary of the Navy. The Secretary approved the proposal which had been made, and it was then possible to proceed upon the definite work of design. Accordingly, a contract was made with the Curtiss Aeroplane & Motor Corporation on the basis of cost plus a fixed profit on the determined cost. Such a contract was necessary because no design similar in nature to this had even been attempted, and there were no figures available which could

give even an approximate estimate of the cost of such a design. The contract as arranged provided that all labor and material should be charged directly to the contract. To this charge 100 per cent would be added to cover intangible and indirect expenses which could not be definitely estimated, and to the sum of these two amounts 10 per cent was to be added for profit. This proposed contract was satisfactory to both the Navy and the Curtiss Aeroplane & Motor Corporation, and work was started upon the design early in October, 1917. The design work was later transferred to the Curtiss Engineering Corporation, at Garden City, Long Island, where it was completed in January, 1918.

At this time it became necessary to choose a name for this type of flying boat. Inasmuch as the design work was under the supervision of the Navy but was being carried out by the Curtiss organization, it was decided that the name of the type would be the NC-1, N standing for Navy and C for Curtiss, and the 1 representing the first boat designed under this arrangement between the Navy and the Curtiss Co. It was intended calling specific boats of this type NC-1 No. 1, NC-1 No. 2, etc., but as this has proven awkward in use the type is now known as the NC type, and the specific boats as the *NC-1*, *NC-2*, etc.

The method usually followed until a year or two ago in the production of new types of flying boats, and for new types of airplanes in general, had been to make sketches of the proposed type of plane and of some of the more important elements and details, estimate the probable weight, and then to proceed immediately upon the construction of parts. If the completed machine did not give satisfactory operating characteristics, certain parts would be changed and it would be tried again. This method would be continued until the design proved to be entirely unsuited for practical use or some satisfactory compromise was reached. With such an unscientific method of design it is exceedingly difficult to determine why a plan fails to come up to the estimated performance. If the weights are excessive, it is difficult, or even impossible to determine wherein the excess lies, or how to change the construction to make a reduction. If the speed of the machine fails to come up to expectations it is practically impossible to determine what changes can be made.

In the design discussed, due to the great increase in size over any successful boat previously constructed, and to the necessity of increasing the percentage of useful load above any which had been reached in flying boats, the adoption of the method of procedure as outlined above would have made failure certain. It was determined to have every detail designed carefully, according to the best engineering practice, and to have the design practically completed before any construction work was commenced. It was only in this way that it would be possible to arrive at a design which would give a practical certainty of a flying boat coming up to the requirements laid down, or which failing in this would show definitely and exactly to what failure was due.

The original plans discussed with the representatives of the Curtiss organization, called for the design of a flying boat capable, if possible, of sustained flight from Newfoundland to Ireland. As soon as the design had progressed far enough, accurate calculations of weights and resistance were made. Upon the completion of these calculations it was found that although the total weight came within the specified limits of 25,000 pounds, the total resistance was so high that, with the horsepower available, the speed would be cut down to such a low value that the estimated cruising radius instead of being the 2,000 miles required for going from Newfoundland to Ireland, would be not more than 1,300 miles. There seemed to be no possible way by which the amount of this resistance could be reduced and, because of this fact, the design of a flying boat, capable of flying from Newfoundland to Ireland, had to be abandoned as impracticable, temporarily at least. The design was now taken up on the basis of a total weight of 22,000 pounds and a cruising radius of 1,300 miles.

It would have been possible at this time to take up in detail calculations for a five-motored flying boat, as previously suggested by Mr. Curtiss. Difficulties which had been met with in the design of the three-motored craft had shown, however, that the original decision regarding size and horsepower had been wisely made, and that it was better to continue the work with the three-motored type of craft, even though its cruising radius were limited to 1,300 miles.

It was necessary to carry on a considerable number of very complete investigations to determine the sizes and shapes of parts to be used in the construction and the materials of which these parts should be made. These investigations had to do with the choice of wing beams, wing struts, wing ribs, compression

struts, metal fittings, outriggers for the tail support, and various other parts to be used in the construction of the hull and tail surfaces.

The NC type of hull, with the tail surfaces carried on outriggers supported in part from the upper rear wing beam and in part from the hull sternpost, was suggested by Mr. Curtiss in his original proposal. The details of the hull design are largely the work of Commander H. C. Richardson, of the Construction Corps. Commander Richardson had had a very wide experience in the design and testing of pontoons for seaplanes and as a result of this experience was best qualified to take up the design of a new hull of the type to be used for the NC flying boat. As the result of his experience in the design and testing of pontoons, he decided that a very satisfactory float could be produced by modifying the design of the R-6 pontoon, which had proved very successful in its use in seaplanes. The shape of the V bottom is similar to that of the Curtiss H-16 flying boat and to the British F-5, which was later adopted by the United States Navy. Changes were made in the shape of the deck of the pontoon at the bow to allow for a gunner's cockpit, and the stern was changed to allow for the stresses produced, due to the weight of the tail surfaces to be supported from the stern to the hull.

To provide for the heavy weights to be carried in the hull, for which no provision was made in the design of the R-6 pontoon, the internal construction was necessarily very different from that of the pontoon. The design called for sufficient strength for 10,000 pounds of gasoline in the hull in addition to the weights of the crew and spare parts which would also be carried there. To provide this necessary strength a fuselage structure of ash and spruce was the basis of construction. To this fuselage structure suitably designed floors, floor stringers, keels and side keelsons, and the framework to support the hull deck are attached. By means of five 2-ply mahogany bulkheads the hull is divided into six compartments. Access from one compartment to another is had through water-tight bulkhead doors. At the points where the wing beams are attached these bulkheads are suitably braced with spruce strips and steel straps, so that the weight of the hull is distributed throughout the bulkheads and to the wing beams without producing excessive strain on any one part of the structure.

Before the design was entirely detailed a model of the complete plane was tested at the Washington Navy Yard Wind Tunnel. A similar model was made later and tested in the wind tunnel of the Curtiss Engineering Corporation. The tests were made to determine the life and drag of the complete machine and its longitudinal stability.

In direct charge of the design, which was under the general supervision of Commander Westervelt, the Curtiss Engineering Corporation detailed Mr. W. L. Gilmore, their assistant manager; Mr. S. V. Davis, who had charge of their drafting room; and Mr. J. A. Christen, who was in charge of the drafting force which was working particularly upon the design of the NC parts. Working with these men and looking after all information regarding changes in design, the strength of parts and the effect upon the strength of various parts of changes in the design, was Ensign C. J. McCarthy. The design work was started at the plant of the Curtiss Engineering Corporation in Buffalo, and in December, 1917, was removed to the new plant of this corporation which had just been completed at Garden City, Long Island. It is interesting to note in connection with this removal that all those engaged upon this design work completed their work in Buffalo at the usual time in the afternoon, were carried to Garden City on a special train at night, and reported for work at the Garden City plant on the following morning, without the loss of time on the design work.

The design, because of the immense amount of detail involved, seemed to progress very slowly, and it was not until January 19, 1918, that it was finished sufficiently to begin the building work of the machines. For this construction work a contract was made with the Curtiss Engineering Corporation for four complete seaplanes. For these craft the Navy Department was to supply three of the hulls and all the engines. The fourth hull was to be built by the Curtiss Engineering Corporation. A contract was let on the basis of actual cost plus 10 per cent for profit.

To facilitate construction, various parts were made under subcontracts from the Curtiss Co. The principal ones which may be noted are as follows: Wing panels, control surfaces, and wing struts were built by Locke & Co., of New York City, expert manufacturers of high-class motor car bodies. Metal parts were made by Unger Brothers, Newark, N. J., manufacturers of silverware, jewelers. Later, to expedite the production of metal parts, some of these

were manufactured by the Beaver Machine Works, of Newark, and some by Brewster & Co., of New York City. Wing-tip floats were built by the Albany Boat Co., builders of high-class steam launches and motor boats. The outriggers supporting the tail were built by the Pigeon-Fraser Hollow Spar Co., of Boston, makers of masts and spars for racing yachts. The gasoline tanks were built by the Aluminum Co. of America, of Pittsburgh. The construction of these tanks was the largest and most difficult job of this nature ever undertaken by an aluminum manufacturer. Two of the hulls to be supplied by the Navy were built by Lawley & Sons, of Neponset, Mass., and one by the Herreshoff Manufacturing Co., of Bristol, R. I. These hulls were built on the basis of cost plus 10 per cent profit of an estimated cost, with the understanding, if the cost could be reduced below the estimated cost, the contractor would be paid 10 per cent on the estimated cost and in addition 25 per cent of the difference between actual and estimated costs.

To assist the Curtiss Co. in expediting the production of these parts, and to aid in every way in the construction and assembly of the machine, four officers were detailed by Commander Westervelt from his force to work with Mr. Gilmore, of the Curtiss Engineering Corporation, who had been placed in full charge of the construction work on these four machines. Only because of the faithful work of these officers was it possible to complete the construction of the first of these flying boats in September, 1918.

This boat, known as the *NC-1*, had a power plant which consisted of three low-compression direct-drive Liberty engines, arranged to drive tractor propellers. This arrangement was chosen because of the necessity of keeping the weights of the motors forward to bring the center of gravity in the required position with respect to center of lift. After actual tests of the machine it was found that slight variations in the position of the center of gravity had practically no effect upon its operating characteristics, and it was decided to change the arrangement on the third and fourth boats to two tractor motors and one pusher motor. This installation was later decided on for the second boat as well.

The *NC-1* was completed and assembled for tests at the Rockaway Beach Naval Air Station in September, 1918. The engines were tried out for the first time on October 1, and the boat was weighed, to determine the total bare weight, on October 2. In weighing this machine four platform scales of 8,000 pounds capacity each were used. These scales were so placed that jacks resting upon the scale platforms could be placed directly under the engine section wing beams, at the outer strut stations. By jacking up the entire weight of the machine was transferred to these four points. The summation of the four scale readings gave the weight of the plane. By carefully adjusting the position of the machine, leveling it fore and aft and transversely, the weights as indicated on the scales made possible the calculation of the fore and aft position of the center of gravity. The total weight was 12,740 pounds. This weight did not include any supplies or equipment. It was the net bare weight of the machine itself. The estimated weight for the complete machine as worked out by the Curtiss Engineering Corporation was 11,900 pounds, 840 pounds or 6.6 per cent less than the actual weight. The center of gravity was 65 inches aft of the leading edge of the lower engine section wing panel, or 28 inches aft of the mean center of lift of the wing panels. This condition indicated very decided tail heaviness, and in the first trial flight which was made it was decided to place in the bow of the machine, 15 feet forward of the leading edge of the lower engine wing panel, a sand load of 1,755 pounds, so that with the weights of cooling water, pilots, mechanics, fuel, and oil the center of gravity would coincide with the center of lift. This would bring the gross weight of the machine in flying condition up to 16,500 pounds.

The first test of the *NC-1* was made on October 4, 1918. In this test, though the craft was very tail heavy, its operation as a whole was very satisfactory and indicated that the work of the designers had been a success. It was found necessary, subsequently, to make slight changes in the position of the horizontal stabilizer to neutralize this tail-heavy condition, but otherwise no radical changes were necessary in the design or construction. This result was very gratifying to those who had been concerned with the design and construction of the machine and proved that the criticisms which had been made during construction by individuals of considerable experience, including officers of the English Royal Air Forces, were without any logical foundation.

The tests made on the *NC-1* showed operating characteristics very much better, as regards lifting capacity and speed in the air, than had been indicated

by the wind-tunnel tests. With the three low-compression tractor engines it got away with a load of 22,000 pounds at a speed of 52 miles per hour, after planing approximately one minute. The wind-tunnel experiments had indicated a get-away speed of approximately 60 miles per hour and a maximum speed of approximately 72 miles per hour with this load. The actual test showed a maximum speed in still air of approximately 80 miles per hour. Because of this exceptionally good showing it was decided to install high-compression engines to determine what load could be handled in this way. Test made with high-compression engines showed the maximum lifting capacity to be 24,780 pounds, as compared with the original 22,000 pounds, for which the craft was designed. The get-away with this load was made under very unfortunate conditions as to wind and tide, and it is very probable that with more more favorable conditions the three high-compression engines would have been able to lift 25,000 pounds.

Because of the possibility which seemed to be indicated of the machine handling much heavier loads than the 25,000 pounds just mentioned, it was decided to install an additional engine and make tests to determine the limit of loading of the machines. According, the NC-2 was equipped with four high-compression Liberty engines, arranged one tractor and one pusher in tandem in a nacelle on each side of the center nacelle. The pilots and controls remained in the center nacelle as in the original design. With this arrangement of engines, the machine got away successfully with a load of 28,100 pounds.

There are several objections to the double-tandem arrangement of engines described in the preceding paragraph. The efficiency of operation of the two engines in tandem can never be equal to the efficiency of operation if the two engines were set up in separate nacelles; in case of failure of one of the tractor engines the pusher engine becomes exceedingly inefficient, because of the propeller of this engine having been designed to operate in the slip stream of the tractor engine, and there is the excessive torque on the rudder which would result from an attempt to keep the plane to its course if one or both of the engines in one of the tandem nacelles should fail in operation.

To obviate as far as possible the difficulties just outlined it was decided to install in the NC-3 and NC-4 four engines arranged with one tractor and one pusher in tandem in the center nacelle, and one tractor engine in nacelle on each side of the center. This arrangement would provide for a better efficiency of operation and for fewer difficulties in operation due to a breakdown of any one of the engines. Trials made on the NC-3 and NC-4 proved this arrangement very satisfactory, and it was adopted for the installation to be used on the trans-Atlantic flight.

Such is the story of the design and construction of the NC flying boats. The performance of these machines in the recent trans-Atlantic flight, both in the air and on the water, shows the excellent results that may be obtained by the application of real engineering principles of design to the solution of problems seemingly as impossible of solution as was this one when first taken up by the bureau.

HISTORY OF NAVAL AIRCRAFT FACTORY.

The idea of having an aircraft factory owned by the Government came up in the summer of 1917, shortly after the declaration of war, at a time when it appeared unlikely that existing plants in the United States for aircraft construction would be able to cope with the large orders being thrown upon them by the Army and Navy. The advantage of such a Government-owned establishment was evident:

(a) For increasing the sources of supply and insuring to the Navy seaplanes as and when wanted.

(b) For developing new models and improving existing models, and to this end building up a competent engineering staff. (In service minor changes become necessary to improve the military characteristics of the units. These changes can be introduced promptly in a Government-owned plant, due to its appreciation of the military aspects of the problem, after which other manufacturers of the same type of machine may be instructed by means of data furnished by the Government plant.)

(c) For obtaining information, for the department's guidance, of the cost of production and experimentation.

In June, 1917, therefore, an investigation was made to determine a suitable location, size, and cost of naval aircraft factory, based upon a capacity of 1,000 school seaplanes per year. Upon recommendation by the Chief Con-

structor, the department, on July 27, 1917, with an allotment of \$1,000,000, authorized the building and operation of such a factory in the Philadelphia Navy Yard, to be under the direction of the commandant of the navy yard, but to be operated independently of existing yard divisions. A type of building was selected which could be built rapidly, but would be substantial and permanent, and included the factory proper, 400 by 400 feet, all under one roof, although divided into two sections, a section 300 by 400 feet, containing the manufacturing departments and offices; a high assembly shop, 100 by 400 feet, with a 10-ton crane; and, in addition to the main building, dry kilns, dry-lumber storehouse, and boiler house.

On August 6 the contract was awarded for the construction of the plant, and August 10 the ground was staked out for the building. Naval Constructor F. G. Coburn, United States Navy, was detailed as manager and reported at the factory August 27. The construction of the building proceeded while machinery and equipment were coming in, and the low factory building was sufficiently finished on October 9 to enable the establishment of temporary offices in it.

Although designed to build school machines, it was desired in October to start the factory on the largest type of service machine used by the Navy, as the school-seaplane program was then well in hand in other airplane factories and the greatest need was for patrol machines. The factory was authorized, therefore, to proceed with the construction of 50 twin-engine flying boats (Curtiss H-16) as a part of the then authorized program. On October 12 plans and engineering data for this machine were received at the factory, and the work of ordering material and starting production was taken up. On October 17 actual work on the first boat was started, and on November 2 the keel was laid. In the meantime construction work was rapidly going forward, and the building was pronounced complete in every respect by the supervising civil engineer on November 20, 110 days from the award of the contract for its construction.

In December, 1917, the number of large flying boats in the Navy's program was about quadrupled and the capacity of the factory had to be increased. The first problem was whether to construct a balanced factory to supply the needed capacity, but after considerable discussion it was decided that the time required for the erection of the building, the assembling of sufficient personnel, etc., was so great as to preclude this solution. It seemed better to utilize available plants in the industrial world for the production of parts and to erect as an enlargement of the naval aircraft factory an assembling plant to be fed by these sources of parts and minor assemblies.

On January 25, 1918, the Aircraft Board, at the instance of the chief constructor, passed a resolution recommending an allotment of funds necessary for this project, and it was approved by the Secretary of the Navy February 9, 1918. The contract for the new storehouse and office building was awarded on February 23, 1918, and for the assembly building on February 28.

The assembly building consisted of two parts: A low building, 13 feet under the roof trusses, for panel shop, varnish and dope room, pontoon manufacture, etc., and a bay 100 feet wide, 51 feet under the trusses, and 680 feet long for final assembly, flanked on each side by a bay of equal size, 50 feet wide and 30 feet under the trusses. The 100-foot bay was equipped with two 10-ton, three-motor, overhead traveling electric cranes, and the side bays each with a 2½-ton small crane. The plan was to manufacture and assemble wings, pontoons, and similar parts in the low section, assembling them to jigs and packing them for shipment, the boat hulls to be put through final assembly and packed and shipped from the high bay, the flanking bays to be used for sub-assembling.

In the summer of 1918, when production was at its height, the assembly plant was drawing its parts from the Victor Talking Machine Co., now very largely given over to this work, from seven yacht yards, two small aircraft factories, a number of furniture factories, automobile body, and sheet-metal products factories. Except for the two small aircraft shops, all of these plants had been drawn into the work by the Naval Aircraft Factory Organization, which maintained branch offices in each of its contributory plants.

The direction of the entire program was reposed in the central offices of the naval aircraft factory, which necessitated enlarged office space. Therefore, a concrete three-story office building was erected to accommodate the offices, and the old office space was put into production. A six-story concrete storehouse, approximately 200 feet square, was provided to meet the enlarged

storage-space requirements, and the storage room in the original factory was thrown into production space. The dry kiln capacity was doubled, as was also the heated storage building and the lumber yards.

The original boiler house was a temporary structure, as at the time it was projected it seemed probable that a new power plant under construction for the navy yard could be relied upon to supply the power to the Naval Aircraft Factory, but the enlarged plant made it necessary to provide a permanent and larger boiler house.

The authorization included a hangar, which was necessitated by the increase in experimental work, in the development of new models and of new features in old models, requiring a considerable amount of alterations on completed planes, with test and demonstration flights. This hangar has a door 200 feet wide and 50 feet high and the building itself is 150 feet deep. In front of this hangar is an apron 200 by 100 feet, made of concrete with a concrete ramp flanked by concrete piers. The concrete is to be colored green to relieve the glare. Provisions are made for the simplification of handling planes on the apron and ramp.

Over 40 acres are occupied by the enlarged plant, the building having 888,935 square feet of floor space, 519,955 square feet of which is normally available for manufacturing purposes. A considerable increase in paving, railroad tracks, roadways, etc., was necessary, and was provided for in the allotment, which, including the hangar, amounted to \$3,678,000. A photographic view showing the layout of the plant is attached hereto.

The first mechanic was employed on October 1, 1917. By November 1, 1918, the entire force numbered 3,642 persons. The employment problem was a difficult one, particularly at the beginning, and most of the employees had to be trained to their work, including superintendents, engineers, inspectors, and foremen. Of 400 engineers and technical men not more than 10 had had previous airplane experience, and no bid was made for employees of outside factories. By an executive order of August 23, 1917, the special classes referred to were exempt from competitive examination under the civil service, but all others were obtained in accordance with its prescribed regulations. Special effort was made to train and utilize women employees, who finally made up practically 25 per cent of the entire force. A training school was also conducted for enlisted men to be sent abroad for assembly and repair of planes.

There were many other problems connected with equipping the plant, incoming sources of supplies, educating manufacturers in meeting specifications, expediting deliveries, and coordinating the work of the factory in all its branches, much credits being due Commander Coburn for the rapid and successful organization of the factory and for the record of production attained. Of the 50 H-16 twin engine boats ordered built in October, 1917, the first was completed and given a successful trial flight on March 27, 1918, being shipped on April 2. A production of one machine a day was reached in June, and last of these 50 boats was finished on July 2. The average factory cost of the last 20, including overhead, was reported as less than half the average of the first 10, and considerably less than such boats were costing the Navy from other plane factories.

Shipment of boats assembled at the factory began on July 6, 1918, and the total output of the factory, up to the date of the armistice, included the large twin-engine flying boats, together with 50 sets of spare parts for that type, and four experimental machines. A quantity of experimental work was also done in individual fittings and parts for service machines. The value of this output was more than \$5,000,000, and the total program, completed and in hand at the factory, at that time originally scheduled for completion by the summer of 1919, was for 830 twin-engine boats, which, with their spares, would represent a cost of about \$23,000,000. Of these, 542, or nearly 70 per cent, were canceled, only such boats being continued as were far enough along to make completion advisable as a business proposition. The type was one suitable for peace-time use of the Navy. Work was likewise discontinued at the works of subcontractors, and the factory force was quickly reduced to about 2,000, with a view to proceeding with the original policy of using it for the manufacture of training models, the development of flying, etc. The large new assembly building was converted into an aircraft storehouse for the reception of raw materials and of partially or wholly manufactured parts and assemblies which could be utilized in future work.

In stopping of work in subcontractors' plants the policy was adopted of effecting an adjustment which would be mutually satisfactory. No arbitrary

cancellations were issued. As far as possible opportunity was given the contractor to taper off his work and to return to peace-time activities without any greater shock or disturbance to his organization than could be accommodated by its inherent elasticity.

AIRSHIPS.

The United States had little or no experience in lighter-than-air work previous to the war. Including the Goodyear Co., which had built a number of free balloons, there were but two concerns in the country that had manufactured such craft. A dirigible, known as the A-1, which had been contracted for in 1915, and not completed until April, 1917, did not prove a success, was of no military value, and practically worthless, even for training purposes. It had been designed and its construction supervised by German talent employed by the Connecticut Aircraft Co., which had undertaken the contract. The development of airships had been accomplished largely by the German and French armies and naturally was kept secret, as far as possible. Some information had been obtained abroad in 1913, but it was meager and out of date by the time war became to be considered by us as a possible outcome of affairs in Europe.

Theoretical and experimental study of the problem was commenced by the bureau in the summer of 1916, and some additional information was obtained from England, which had made a certain amount of progress. In October, 1916, the chief of operations requested the preparation of designs for a training airship to carry six men and to have an endurance of four hours at 40 miles per hour. This request was modified in December to cover a speed of 45 miles, an endurance of 12 hours and 35 miles, a crew of three men, radio equipment for 150 miles, and provisions for alighting on the surface of the sea, with arrangements for being towed.

These military requirements were carefully compared with information available as to foreign construction and with an independent analysis of the coast patrol problem.

From British accounts a small airship was useful. We know they used a 75 or 80 horsepower motor, but did not know the speed, endurance, or load. It was clear, however, that for patrol work the endurance should be enough to permit daylight patrols of 10 or 12 hours' duration. At night a patrol airship would be relatively useless, and hence such an endurance seemed great enough.

The speed must be sufficient to enable the airship to get back—

The necessary lift required an envelope of about 77,000 cubic feet, which with ordinarily good hydrogen gas gives a total lift or buoyancy of 5,275 pounds.

The envelope was then designed to give this lift and made of a shape which should be easy to drive. Experiments were conducted at the wind tunnel at the Washington Navy Yard to determine the resistance of this shape in order that the speed could be computed. It appeared possible to obtain the desired speed of 45 miles, but without any margin to spare.

We had heard that the British dirigibles were fast, but aside from them there was no record of a dirigible of such small size ever having been driven at a speed so high as 45 miles. Unless the fin and rudder surface were correctly proportioned, there would be difficulty in steering the ship at high speed. A research in the wind tunnel was, therefore, undertaken with a model of the ship fitted with fins and rudders of various sizes and arrangements. From these experiments fins and rudders were designed which appeared to be on the safe side and to guarantee stability in flight.

The car to carry the engine, fuel tanks, pilots, and other weights was designed after aeroplane practice, and presented no difficulties, except balance. The fuel tanks might be in flight full or nearly empty and to avoid disturbing the trim of the ship the tanks must be under the center of buoyancy of the envelope. The weight of fins and rudders tends to make the ship trim by the stern and to balance this the fixed weights, engine, men, radio, blower, etc., should be placed forward of the center of buoyancy a sufficient distance. To provide for proper balance the car was designed to have the tanks in the rear end under the center of buoyancy of the envelope and the engine forward with the men and other weights between. This gave a long car resembling the fuselage of an aeroplane and distributed the weights correctly.

The next problem was the suspension of this car from the gas bag, or envelope, in such a manner as not to deform the bag or put undue tension on any part of its fabric. The envelope was merely a fabric gas bag held taut by internal-gas pressure and the greatest delicacy and skill were required in sus-

pending the car. The calculations involved in the design of the suspension had to be devised from general engineering principles, but were not very satisfactory on account of the indeterminate nature of the distribution of load between various suspension members. It was desired to use the lightest fabric for the envelope that could be considered safe and to this the suspension was to be attached so that the envelope would be held fair and stiff with no more than 1 inch of water pressure inside. The calculation made was an application of the naval architect's usual method for calculating the longitudinal strength of ships and appears to be justified by the results.

The ballonnet capacity was fixed at 25 per cent of the total volume of the envelope. Such a capacity was enough to compensate for the change in pressure incident to a change of 7,500 feet in altitude on a normal day. There were two ballonnets provided, one in each end of the ship, so they could, by manipulation of suitable valves, be used as trimming tanks. This system had been used on French and German dirigibles.

The required speed of 45 miles meant that at high speed the nose of the ship would tend to cave in, due to external pressure, unless the internal-gas pressure were about 2 inches of water. As it was not desired to carry so high a pressure, the nose was stiffened by battens of ash. This feature had been seen on English dirigibles.

The characteristics of the design were as follows: Length, 160 feet; diameter, 31.5 feet; height, 50 feet; power of main engine, 100 horsepower; power of blower engine, 2 horsepower; maximum speed, 45 miles an hour; cruising speed, 35 miles an hour; endurance at 45 miles, 10 hours; endurance at 35 miles, 16 hours; gasoline capacity, 100 gallons; ballonnet volume, 19,250 cubic feet; envelope volume, 77,000 cubic feet; cross lift at 0.068 pounds per cubic foot; 5,275 pounds; weight empty, 3,250 pounds; instruments, etc., 100 pounds; blower outfit, 100 pounds; radio outfit, 250 pounds; lighting set, 15 pounds; two men, 320 pounds; fuel and oil, 633 pounds; ballast, 290 pounds; margin, 311 pounds; useful load, 38 per cent, or 2,019 pounds.

By January 6, 1917, the designs and calculations, which were prepared under supervision of Naval Constructor J. C. Hunsaker, United States Navy, were sufficiently well advanced to indicate that an airship could be built which would materially exceed the military requirements specified by the Chief of Naval Operations in his letter of December 13, 1916, and preliminary plans and specifications were submitted to the Secretary of the Navy. The type was approved by the General Board January 26, 1917, and by the Secretary January 27, 1917. At that time it was the intention to build one or two airships as an experiment, but relations with Germany were rapidly becoming strained, and on February 17, 1917, the Secretary of the Navy authorized the construction of 16 airships of the type proposed.

In its letter to the department, the bureau stated that the construction of such a ship was within the capacity of the industrial facilities of the country, but to get delivery of 16 in any reasonable time seemed at first glance entirely impossible, when it was realized that the work would have to be done by firms entirely unfamiliar with the work and without allowance of time for experiment and research. It was clearly impossible to allow time enough to build an experimental ship to the bureau's design, and, after correcting any defects, to proceed with the construction of the other units. This would have been the normal peace-time procedure, but six months' time was not available, and a start had to be made at once. The bureau, therefore, decided to go ahead with the construction regardless of the unproved nature of the design, and on February 6, 1917, sent copies of the plans and specifications to five firms, which had offered their facilities to the department for war work and which were considered to be in a position to help. Representatives of these five firms met with the bureau on February 12 to discuss ways and means for getting the 16 ships built quickly.

The five firms requested to undertake the work were the Curtiss Aeroplane & Motor Corporation, of Buffalo; the Connecticut Aircraft Co.; and the three great rubber manufacturers, Goodyear, Goodrich, and United States Rubber. In spite of a very great desire to help the Navy, it was immediately apparent that no one of them was in a position to handle the work. In the first place, they were without experience in airship building, with the exception of the one unsuccessful attempt of the Connecticut Aircraft Co. None of the rubber companies had ever made fabric of the hydrogen-resisting quality and strength required, and it would be necessary not only to develop new processes but to put in new machinery and special equipment to manufacture it. Supplies of

the special fine cotton cloth needed would have to be obtained, and the market for it was in an abnormal condition.

None of the firms represented had any building large enough to erect an airship, and though the Navy was planning to put up eight airship sheds at coastal stations, the date of completion of such sheds was indefinite and probably too remote to render such sheds available for the first few ships turned out. It was of utmost importance that one ship should be rushed to completion to prove the design before the others were too far advanced.

It was agreed at the conference that the manufacturers should form a committee, which committee should arrange that each concern would bid for such proportion of the work as appeared to be within its capacity; that the raw materials, information, and experience of all would be pooled both before and during manufacture, and that each would bid a flat price with a guaranty and bond. The cost-plus contract, or "Navy order," was then unknown, and the bid price arrived at was purely an estimate based to a large extent on information from abroad which the bureau made available to the committee. The price agreed upon was about \$40,000 per airship, with a guaranty to produce a practical ship making more than 35 miles per hour and a guaranty to replace any defective parts for three months. As things worked out, most of the contractors lost money, for the work was done as a rush job, and no expense was spared.

The Goodyear Co., as the most experienced, was in the best position to go ahead. R. H. Upson and R. A. D. Preston, aeronautical engineers of the Goodyear Co.'s staff, had had several years' experience in designing, making, and practical handling of free balloons. They could be relied upon to cope with the present problem. Goodyear agreed to put up at its own expense a complete erection and testing establishment consisting of a field near Akron, Ohio, with a large capacity hydrogen generating plant and an airship shed 200 by 100 by 100 feet, together with the barracks for the necessary field organization. This decision was reached March 20, 1917. Ground was broken for the hangar and hydrogen plant April 1, 1917, and the first balloon (a free balloon) was inflated in the hangar June 1, 1917.

The Goodrich Co., to make up for its lack of experience in making up airship envelopes, cabled for M. Juillot, the well-known engineer of the Lebaudy firm in Paris, with whom they had been in correspondence. M. Juillot sailed immediately and later, when the United States had declared war on Germany, the department was able to arrange for the release from the French Army of two of M. Juillot's assistants, M. Bourguignon and M. Gautier. These men, together with Mme. Bourguignon, who was a skilled fabric worker, were of the greatest assistance in introducing the practical refinements in manufacture about which information was so much needed.

The United States Rubber Co. decided not to attempt to build complete airships, but undertook to supply fabric for the Connecticut Aircraft Co.

On March 14, 1917, contracts were awarded as follows: Goodyear, nine airships; Goodrich, two airships; Curtiss, three airships; and Connecticut, two airships. The Curtiss Co. undertook to supply cars, power plants, and fins to Goodyear and Goodrich and later turned over its contract for three complete ships to Goodrich, supplying the same parts for them. Connecticut subcontracted for its cars and fins with the Pigeon Frazer Co., of Boston, and got its power plant from the Hall-Scott Motor Co., of San Francisco.

Much difficulty was experienced in developing the manufacture of satisfactory fabric, but through intensive research and improvement material was finally turned out which by comparative test proved to be superior to any produced in England, France, or Italy, during the war.

For some of this improvement, credit must be given to information received from England after the United States declared war. The English methods were of the greatest assistance. With them as a guide, the American manufacturers were able to adopt their own peculiarly American shop practices to work out a fabric which finally equaled the best foreign product.

The Goodyear Co. completed the first airship in May, 1917, before their shed at Akron was completed. The Goodrich Co. had in the meantime found an abandoned shed at the "White City," Chicago, put it in order, and arranged for a large supply of hydrogen in flasks. In order to get a trial of a type ship for the benefit of all contractors, it was arranged to ship the first Goodyear ship to Chicago. The ship was assembled, inflated, and given a short flight by Mr. R. H. Upson, of the Goodyear Co. He was so favorably impressed with the results that on the second time up, the weather being favorable, he con-

sidered there was less danger in trying to fly home to Akron than in attempting a return to the little field at Chicago which was seriously restricted by buildings and telegraph wires.

Accordingly, he headed for Akron at midnight and at noon of the next day, Decoration Day, 1917, landed in a meadow 10 miles from Akron. Had the oil supply held out he could have landed on the Goodyear field, but the motor ceased at the last minute.

The flight is remarkable in several particulars. In the first place, it was one of the longest dirigible flights on record up to that time. In the second place, it was a maiden flight of a new airship designed from theoretical and experimental data by a designer of no experience and built in two months by a firm without previous airship experience. In the third place, the flight is astonishing because Mr. Upson was not then an airship pilot, and, by our present standards, could not have been expected to handle the ship until he had gone through weeks of instruction at the hands of an experienced pilot. However, he was an experienced ballonist and as an engineer had thorough appreciation of how the airship was designed to function.

This flight was very encouraging for the production program, as it proved that the design was all right and permitted the contractors to go ahead with confidence. From then on the ships were delivered with regularity and by the end of the year were operating at the various naval air stations.

The following tables give the dates of delivery of these ships:

No.	Manufacturer.	Date.	No.	Manufacturer.	Date.
B-1.....	Goodyear.....	July 19, 1917	B-9.....	Goodyear.....	Jan. 31, 1918
B-5.....	do.....	Aug. 11, 1917	B-8.....	do.....	Feb. 25, 1918
B-13.....	Goodrich.....	Sept. 11, 1917	B-7.....	do.....	Feb. 27, 1918
B-3.....	Goodyear.....	Oct. 22, 1917	B-6.....	do.....	Mar. 3, 1918
B-4.....	do.....	Dec. 4, 1917	B-10.....	Goodrich.....	Apr. 15, 1918
B-15.....	Connecticut.....	Dec. 14, 1917	B-16.....	Connecticut.....	Do.
B-14.....	Goodrich.....	Jan. 11, 1918	B-11.....	Goodrich.....	May 8, 1918
B-2.....	Goodyear.....	Jan. 22, 1918	B-12.....	do.....	June 6, 1918

As the airships came along improvements and changes based on experience were incorporated. Suggestions for improvements in details of design came first from the contractors and later, as more Navy pilots became trained, a few useful suggestions came from the service. The Goodyear Co. proposed many refinements in design which they introduced as a result of the experience of their test pilots, Mr. Upson and Mr. Preston. The enterprise of that firm in providing a flying field at Akron near their works placed them in a position to experiment in the air.

The improvements of most interest were those which led to an increase in speed. The first ships had a speed of about 40 miles per hour. It was found that one of the vertical fins could safely be left off, thus cutting down the resistance of one fin and its supporting wires. Later the car was suspended closer to the envelope, shortening the suspension and saving resistance. Still later the suspension itself was simplified and knots and loops cleaned up. A somewhat longer and easier form of envelope gave greater lift and probably less, or at least no more, resistance. The air pipes to the ballonets were placed inside the envelope to save resistance. Improved propellers were developed also. The air scoop finally became only a short sheet metal tube hinged to the envelope proper, which could be let down into the ship stream of the propeller or pulled up out of the way, greatly decreasing the resistance and weight of the ship by eliminating the scoop under the car, the blower and air line to the bag.

As a result, the speed was progressively raised from 40 miles to 48 miles with the same engine. The designed maximum speed was 45 miles per hour, but the contractors were required to guarantee 35 only.

A gratifying feature of the construction was the weight. If the ships had run over the designed weight their usefulness would have been seriously compromised. Fortunately, all ships, including the first of the series, showed a useful lift in excess of the designed load. In some cases it appeared that the structural weights would run over, but in those cases the buoyancy also ran somewhat in excess of the designed figures, leaving a good margin for the useful load.

The Navy's first attempt to design, build and operate airships, though fraught with difficulties, was, on the whole, very successful. This is to some extent due to the modest size selected for the first attempt, but mainly to the energy

and enthusiasm of the people concerned, both in and out of the service. The "B" class airships, as these 18 were called, were used at home for training and coast patrol. In France our air forces operated French ships and in England, English ships. But though the B ships had no direct war service, they contributed their mite by training our pilots so that they could go abroad and take over immediately the operation of the foreign types. About 170 pilots were so trained in the United States on B ships before the armistice. In addition, B ships were used on coast patrol and flew over 13,600 hours or about 400,000 miles.

The B-class airships are not an improvement over contemporary English airships of the same type, and are in some respects less handy and simple, though of greater carrying capacity and endurance. The noteworthy features are the conditions of their design, manufacture, and initial operation. The ships were put into production from plans without waiting for the perfection of an experimental ship.

After the completion of the B-class ships, there was an almost complete stop to airship work in the United States, and an improved single-engine type which was designed in the winter of 1917-18 was not built. The reason for this was a discouraging report from abroad as to the effectiveness of airships on anti-submarine patrols. But the conclusion drawn from airship operations abroad in the bad winter weather proved to be premature. As the good weather of the spring of 1918 permitted English and French airships to operate more freely, it became apparent that we should proceed immediately with a larger and faster type. Using this time all of the practical experience gained at home with B-class ships, and detailed information from abroad with regard to British, French, and Italian airships, the bureau undertook to take a step in advance and to design a ship of maximum performance. Full use was made of all available sources of information. In the initial stages of the design the data regarding the performance of British airships, obtained from the British Admiralty through Lieut. Commander P. L. Teed, R. N. V. R., who was attached to the office of the British naval attaché at Washington, was especially helpful.

Experience showed the advantages of high speed to cope with winds, great endurance to follow convoys long distances, and a duplicated power plant to lessen chances of complete breakdown at sea. The C class was designed with these ends in view.

To obtain high speed, a new form of envelope and car, of very low resistance, were developed from wind-tunnel experiments. The speed was to be obtained by a combination high power with the utmost refinement in design to keep down resistance. Twin engines were used giving a total of 250 B. H. P. The actual speed on trial was 60 miles per hour, making probably the fastest airship of its size ever built.

During the intensive research to improve the B-class envelope fabric it was determined that deterioration was largely caused by the combined action of heat and the actinic rays of sunlight. Attempts were made to meet the trouble by filtering out the actinic rays through coloring first the exterior of the fabric and later the rubber as film between the plies of cloth. Proper coloring materials were hard to get, and it was usually found that the deterioration resulting from the heat absorbed by the fabric was nearly as rapid as before. About the time the C-class design was begun, information from abroad showed that the British airships were suffering from the same troubles, and that the most successful protection for the fabric was a coating of aluminum powder, the object of this coating being to stop all the light from going below the surface of the envelope and to reflect and radiate quickly nearly all the heat. The C-class envelopes were made of fabric coated with bright aluminum. This fabric has been found in comparative exposure tests superior to the best developed during the war in England, France, and Italy.

The principal dimensions and characteristics of the C-5, as weighed off before her start for Newfoundland, were as follows: Length, 192 feet; diameter, 41 feet 9 inches; volume, 182,000 cubic feet; purity (98.6 per cent), temperature (65° F.), total lift, 12,700 pounds; barometer, 30; weight, empty, 7,940 pounds. Weight carried: Crew (6 men), 1,015 pounds; fuel, 3,250 pounds; oil, 120 pounds; navigating equipment, 25 pounds; radio, 250 pounds; food, 15 pounds; water for drinking, 85 pounds; ballast, 0 inch; useful load, 4,760 pounds. Endurance at 45 miles per hour, 47 hours, or 2,150 miles; endurance at 55 miles per hour, 28 hours, or 1,540 miles.

During 1918, contracts were placed with Goodyear and Goodrich for 30 airships, the cars to be supplied from the Burgess Co., Marblehead, Mass. After the armistice contracts were reduced to 15 ships.

C-1, the first ship, was completed in September, 1918, and on its maiden trip, October 22, 1918, flew 400 miles from Akron to Washington, in eight and three-quarters' hours. It flew over the Navy Department Building and landed at Anacostia to permit an inspection by officers of the department. It then proceeded to Rockaway, Long Island. Later in the year the C-1 was ordered to Key West and flew down the coast, stopping at intermediate air stations.

The C-5 on May 14, 1919, flew from Montauk to Newfoundland with six men in 25 hours, 50 minutes, a distance of 1,022 nautical miles on chart without stop. This flight will remain for a long time as a notable achievement. The distance actually flown (not being in a straight line) was about 1,200 nautical miles, or nearly the distance from Newfoundland to the Azores.

The C-5 was unfortunately lost at Newfoundland in a gale while moored out in a field, and was, therefore, unable to attempt the trans-Atlantic flight, which was within her designed endurance.

The Navy's first airships, the B class, were thoroughly practical ships, and, while not remarkable for performance, are interesting as the solution of a design and production problem. The Navy's second lot of airships, the C class, were in performance, an enormous advance over the B class and placed us at once abreast of the times. These ships are generally admitted to be, for their type, equal to or superior to anything abroad.

CONVERSION AND REPAIR OF VESSELS TAKEN OVER DURING THE WAR.

1. These vessels logically divide into three main groups: (a) Troop transports, (b) Naval Overseas Transportation Service vessels, and (c) other vessels.

2. As soon as it was decided to send troops abroad, the necessity arose of developing a fleet of vessels for carrying the troops, as up to that time there were only a few vessels manned and operated by the War Department that were fitted for this special service. Due to the exigencies of the situation, it was determined to fit out the vessels under naval supervision, as they were to be operated by the Navy, the main features to be made satisfactory to the War Department. With the information and experience available in the Navy and from the War Department, the various navy yards undertook the conversion of the vessels concerned or arranged for same at private plants.

3. The majority of the transports at first fitted out were the ex-German passenger vessels seized in United States ports. In addition, a considerable number of merchant-passenger vessels and some large cargo vessels were converted to the above purpose; also a number of vessels were fitted for cross-channel service in carrying troops for short periods only.

4. The main features of conversion were: (1) Armament, including communication and lookouts, (2) accommodations for naval complement, (3) berthing the troops, (4) messing the troops, (5) improvements in watertight integrity and stability, (6) life-saving appliances, (7) fitting of paravanes and other protective devices, (8) storerooms and cold storage, (9) fresh water, (10) fuel capacity, (11) hospital arrangements, (12) toilet and washroom facilities, and (13) ventilation.

5. Many of the arrangements in connection with the above features were, due to the rush of work, either of a makeshift or experimental nature, as this country had never before been called on for such a vast undertaking.

6. As the war proceeded and experience was gained, much improvement was made in all the arrangements and the navy yard, New York, developed and standardized a great many features locally. Using data and information available, the bureau, cooperating with the War Department and all others concerned, developed, standardized, and issued general specifications for fitting out vessels as troop transports.

7. Of the features mentioned in paragraph 4, the cafeteria system of messing the troops, the providing of adequate forced ventilation, and metal folding type standees with wire fabric bunk bottoms contributed greatly to the increase in troop-carrying capacity of the vessels, in many cases the capacity being eventually practically double that as originally fitted out. Practically all of the vessels lacked watertight integrity to resist torpedo attack; and transverse bulkheads were installed, doors and air ports permanently closed where practicable, drainage system greatly improved, holes cut in longitudinal bulkheads to improve stability in damaged condition, and ballast installed to handle all usual conditions of load. In addition to the systematic reports required from

the vessels as to loading, ballasting, and time of roll, "floodable length curves" were worked out in the bureau whereby the conditions that would result from any damage were closely ascertained. Thorough instructions were issued to commanding officers as to how the watertight integrity and stability could best be maintained, as much depends on the personnel in this regard. The most notable example of the results attained is that of saving the *Mount Vernon* after being struck abreast the firerooms by a torpedo. The hospital arrangements also became of great importance as the casualties abroad increased.

8. The repair of troop transports developed into a large proposition. When navy yards could be used, the repairs were done there. The great bulk, however, of the repairs was done at private repair yards under naval contract and supervision of navy yard representatives.

9. In addition to the vessels already in service that were fitted out as troop transports, arrangements were made whereby a large number of those building for the United States Shipping Board Emergency Fleet Corporation, were to be fitted out so as to be ready as troop transports when completed by the builders. These arrangements were made by a joint board consisting of a representative each of the War Department, Navy Department, and Emergency Fleet Corporation. This board was largely governed by naval experience and requirements, and greatly expedited the preparation of plans and data for the use of the builders, who were required to prepare the plans under the direction of the board for final approval by the War and Navy Departments and the Emergency Fleet Corporation.

10. Outside of the armament, the main features required for naval overseas transportation service were: (1) Accommodations for the larger naval personnel necessary for efficient operation under war conditions, (2) increasing storeroom space and fresh-water capacity, (3) increasing fuel capacity and providing sufficient ballast for long trips, (4) accommodations for passengers where practicable, (5) increasing life-saving facilities, (6) providing or increasing cargo fuel oil capacity where practicable, (7) fitting of paravanes, and (8) strengthening or providing stronger steering gear and cargo handling gear to meet the heavier demands on these features, providing ample spare parts for the machinery involved.

Some of these vessels in service or at first turned out (mainly merchant tonnage commandeered by the Emergency Fleet Corporation) were much lacking in structural strength, stability, and watertight integrity required for trans-Atlantic service and to resist underwater attack. These features were investigated and corrected as far as practicable, though some ships were practically hopeless in this regard. The later ships, being those designed by the Emergency Fleet Corporation, were much better as to the above features. There was a great shortage of fuel oil abroad, and every effort was made to convert and utilize double bottoms, and other tanks available to carry fuel oil where practicable. Much work was done in this respect.

11. The methods of fitting vessels for this special service were standardized as far and as rapidly as possible, by the Bureau of Construction and Repair, through correspondence and conferences with the Naval Overseas Transportation Service section of Naval Operations, the other bureaus concerned, the district sections of Naval Overseas Transportation Service, and the Emergency Fleet Corporation; and agreement was finally reached whereby the vessels building by the Emergency Fleet Corporation would be fitted out as far as practicable and ready for naval crews and guns when taken over by the Navy. The Navy Department made up and issued specifications for these changes after the details had been fully developed and discussed by the bureaus and all concerned.

12. In addition to the above many vessels of the Naval Overseas Transportation Service were fitted out by the War Department for carrying animals, gas shells, etc., special fittings being required for such service.

13. The fitting out and repair of Naval Overseas Transportation Service vessels was done mainly by private repair plants under contract and naval supervision, although work was assigned in navy yards whenever practicable. The naval supervision was mainly handled locally by a special Naval Overseas Transportation Service organization under each naval district commandant.

14. Various other vessels taken over from private hands were fitted for special service, such as mine carrying, gunboat and patrol duty, etc., a description of which would be purely an outline of various minor alterations, repairs, and equipment, and therefore of no particular interest.

ARMING OF MERCHANT VESSELS.

1. Prior to the entry of the United States in the war with Germany a small number of merchant vessels had been furnished with naval guns and a naval armed guard with a view to repelling attacks of German submarines on our then neutral shipping. The first vessel armed was the *Manchuria*, on March 8, 1917.

2. After April 6, 1917, the arming of merchant ships became general. The fitting out of a vessel to take an armed guard was, of course, done by the owner, but the features installed were necessarily supervised or inspected by naval representatives and required to comply with naval standards before a battery would be installed at a navy yard or at a private plant under naval contract and supervision. A conference was arranged representing all the main naval districts, the naval bureaus concerned, the Shipping Board, and the War Department, at which general specifications were drawn up and issued by the Navy Department on August 9, 1917. A later conference resulted in a revised set of specifications issued as of December 27, 1917, with minor corrections on January 16, 1918. These specifications covered arming merchant vessels for trans-Atlantic service. When the submarine menace came to the Atlantic coast special modified instructions were issued as to arming coastwise vessels also, these instructions being by the Navy Department as of July 31, 1918.

3. The main features of the armed-guard requirements covered: (1) Gun foundations and working platforms; (2) lookout stations and communication to bridge and guns; (3) ready service ammunition boxes; (4) magazines, including flooding, lighting, and ammunition handling; (5) accommodations for armed guard, including berthing and messing, toilet and washing facilities, store-rooms, gun-crew shelters near the guns, and general alarm system; (6) signaling apparatus; (7) smoke-making apparatus; and (8) life-saving apparatus.

4. Early in the war the United States Shipping Board Emergency Fleet Corporation, after arrangements with the Navy Department, issued instructions regarding vessels building and in commission with reference to arming and armed guards. The bureau had prepared as far as practicable and issued to the Emergency Fleet Corporation and to all naval districts standard plans for the built-up foundations for the various caliber guns to be installed. These plans were necessarily general only and had to be modified to suit local conditions on each ship. The Emergency Fleet Corporation also forwarded many sets of plans of new vessels to the bureau for criticism and approval as to gun foundations, magazines, etc. For certain smaller types of Emergency Fleet Corporation vessels the Navy Department approved certain departures from the standard specifications to meet local conditions on board. This was done also in some special cases upon representations from the owners of vessels. In general, however, the standard specifications were insisted upon, and armed-guard installations were rather fully standardized. Armed-guard ships were rigidly inspected upon each entry into an American port and kept up to standard as to material as well as personnel.

PREPARATION OF MINE-PLANTING FLEET.

1. In the latter part of 1917 it was determined to fit out a number of ships for the special purpose of mine planting. The *Roanoke* class, consisting of that vessel and the *Canonicus*, *Canandaigua*, and *Housatonic*; the *Quinnebaug* class, consisting of that vessel and the *Saranac*; and the *Shawmut* class, consisting of that vessel and the *Aroostook* all merchant vessels, were selected for the above duty. General instructions were prepared in the bureau and sent to the navy yard, Boston, for the *Shawmut* class, and to the navy yard, New York, for the *Roanoke* and *Quinnebaug* classes, covering the general features required.

2. The main decks were practically cleared of all obstructions from near the bow to the sterns for the purpose of installing mine tracks. This involved removing all interior minor bulkhead, except the boiler and engine casings, and making arches in the main bulkheads. Four tracks were built, with the necessary turntables and switches, and extended to the stern, for launching the mines, except that in the *Shawmut* class and the *Quinnebaug* class the tracks were reduced to two at the stern, due to the small beam. Doors and ports were fitted aft and sterns were modified to permit the launching or the closure of the openings while not actually launching mines. The mines were mostly stowed on the tracks on the main deck and additional tracks on the lower decks, and there were winches installed for hauling them fore and aft. Bulkheads and watertight doors in way of tracks on lower decks were reconstructed to suit the tracks.

Stowage was provided for mine charges forward. From four to six elevators—electric or hydraulic type—were fitted forward on each ship for mine handling to lower decks. Special mine davits were fitted and 8 to 10 winches were installed on each ship to handle the mines. The winches also assisted in handling additional boats. Communication, telegraph indicator, and control systems, in connection with handling the mines, together with the necessary voice tubes, were installed.

3. A battery of one 5-inch gun and two 3-inch antiaircraft guns forward was installed on each vessel. The usual lookout stations and means of fire control and communication in connection with the above and for ship's service were installed. Necessary magazines were provided.

4. Adequate accommodations had to be provided for the naval complement. This included staterooms, messing spaces, hospital spaces, galley, toilet, and wash room facilities, and offices. Complete ventilating systems were installed and adequate storeroom and refrigerating room spaces were provided. Adequate ice machines were installed under the cognizance of the Bureau of Steam Engineering.

5. Due to the necessity, for strength and freeboard reasons, of closing the side ports below the main deck, arrangements had to be provided for coaling overhead from a collier. Other minor structural changes were made, auxiliaries overhauled, etc., as necessary to put the vessels in efficient condition.

6. Additional fresh-water capacity had to be provided, and there were also installed new or additional evaporators and distillers, under the cognizance of the Bureau of Steam Engineering. These added electrical demands required additional generating capacity, also under that bureau.

7. The steaming radius of the *Roanoke* and *Quinnebaug* classes was too small and so the hold forward of the boilers was fitted as a reserve bunker. The *Shawmut* class were converted to oil burners, which involved a great deal of structural work to provide the oil bunkers.

8. All the vessels were fitted with paravanes for protection against planted mines; also with additional boats, including necessary handling gear and stowage, for life saving and special ship's use. Life rafts were likewise provided, in accordance with the usual practice.

9. As these vessels were only required to be self-sustaining as a group with a repair ship, workshop facilities were limited to a few woodworking machines, together with a small equipment of machine tools furnished by the Bureau of Steam Engineering.

10. The *San Francisco* and the *Baltimore*, of the regular Navy, were fitted out with such of the special mine-planting features as are covered above, thus making in all 10 vessels fitted for mine planting.

11. The ex-merchant vessel *Black Hawk* was fitted out as a group repair ship for the fleet, the usual repair facilities being provided.

12. The mine-carrying capacities of the above mine planters are as follows: *Baltimore* and *San Francisco* 180 each, *Shawmut* class 330 each, *Quinnebaug* class 618 each, and the *Roanoke* class 862 each.

13. The mine planters were kept supplied by 22 lake vessels, specially fitted as mine carriers.

14. The fleet was ready for service early in 1918, and performed a large share in the planting of the North Sea barrage, its expeditious and thorough accomplishment of this work having been the subject of much favorable comment, which was likewise applied to the equally difficult and dangerous work of clearing this mine field, in which about 36 of the mine sweepers and 24 of the sub. chasers were employed to advantage.

CONVERTED MINE SWEEPERS.

At the time of the entry of the United States into the war the Navy had a very few vessels equipped for mine sweeping. These were in general old torpedo boats of no further value for their original purposes, or else tugs belonging to the fleet and hastily fitted for sweeping in addition to their regular work. Our entry into the war brought the Navy Department face to face with the possibility that German submarine mine layers might at any time begin operating off our Atlantic coast, and this possibility necessitated the immediate fitting-out of a greatly increased number of vessels for sweeping. During the months immediately before and after our entry into the war, inspection boards, throughout the country examined many-hundred vessels of every description. From

among this number several hundred were reported as being suitable for use as mine sweepers, most of them being also reported as suitable for patrol work. As this latter work was the most pressing in importance, the inspected vessels, as fast as they became available for Government use, were assigned to the various naval districts and hurriedly fitted out for patrolling. As the patrol forces became more or less organized, the most suitable vessels from among them were selected for fitting out for sweeping. Those selected included a number of yachts and a good many tugs, but the type most generally chosen was the steam trawler.

As the personnel available for manning these boats was in general entirely ignorant of mine sweeping, the most pressing need was to fit out as quickly as possible a few vessels in each district which should operate with the torpedo boats already equipped for sweeping, and from them learn the rudiments of the work. The vessels in hand being of all sorts and sizes (the United States had at that time no specially constructed sweepers), and the mine sweeping gear being somewhat undeveloped both in quantity and completeness, each installation was necessarily a problem to be solved separately, with scanty information available as to the difficulties which might be expected to be met during the actual work of sweeping. As fast as the vessels having these first installations were fitted out after a fashion, they were sent out to work. The difficulties they encountered began to be reported back to the fitting-out yards, and as experience was gained both by the sweeping crews and by the fitting-out yards, the installations were improved and standardized. At the beginning the fitting-out yards had examined the existing installation on the fleet tugs, and the old torpedo boats, but the experience gained by these vessels had caused them to develop and improve their methods according either to the peculiarities of the individual vessel, or to the ideas of the personnel on board. Consequently in studying these installations with a view to getting suitable installations on the miscellaneous fleet being fitted out, the first thing that appeared clear was that hardly any two vessels of those fitted before hostilities commenced, were using exactly the same methods, or in fact the same gear. A feature that one vessel's crew would consider essential, would be condemned by another crew as entirely unsatisfactory. The result was that the standard sweeping gear as it existed at that time, was put on board as then seemed best, and the vessels, with very few other changes, were shoved off to work out their own salvation. The defects in installation which inevitably showed up as a result of this lack of familiarity with requirements, when reported back to the fitting-out yards, gave the Bureau of Construction and Repair and the yards actually making the installations, a considerable volume of information as to what was needed, as well as what to avoid.

The hand reels which had been part of the original standard gear were found to be far too slow and difficult to operate, and steam winches were added as fast as possible. Similarly, the 6-foot kilts which had in the beginning been used to a considerable extent, were as far as possible replaced by 12-foot kilts.

The patrol and sweeping work involved in most cases much harder usage than the vessels had heretofore experienced, and the natural result was development of a good deal of leaking and machinery trouble. As the vessels came in to have these defects corrected, advantage was taken of their inactivity to standardize the sweeping installations and to do what work was practicable toward improving the living conditions on the vessels and fitting them more in conformity with usual naval practice. These latter changes consisted generally in increasing the berthing, improving the galley and messing arrangements for the crew, mounting such guns as they could carry, adapting the electric plants for naval purposes, installing radio and signaling equipment, improving the outfit of boats and their davits, increasing capacity for coal, water, and stores, and many other items necessary for operating vessels efficiently under naval routine and unusually strenuous conditions.

From the point of view of the work done on the vessels themselves, as distinguished from the developments in the sweeping gear, probably the most interesting refitting work resulted from an order issued June 7, 1917, to fit 12 mine sweepers for foreign service; it being the intention to use them for coastal convoy work abroad. The 12 vessels so selected were the following, all wooden steam trawlers:

Name.	Fitting-out navy yard.	Length.	Breadth on load-waterline.	Date of commissioning for foreign service.	Remarks.
Raymond J. Anderton	Boston	<i>Ft. in.</i> 139 7	<i>Ft. in.</i> 23 8	Aug. 18, 1917	Stranded off Lorient, France, and sunk, Jan. 12, 1918.
Philip K. Bauman	Norfolk	158 0	24 0	Aug. 10, 1917	
Winfield S. Cahill	do.	137 0	24 6	do.	Foundered off French coast returning to United States, Apr. 27, 1919.
City of Lewes	Philadelphia	150 0	24 0	Aug. 12, 1917	
Warren J. Courtney	Norfolk	143 0	23 4	Aug. 10, 1917	
Otis W. Douglas	do.	140 0	24 0	do.	
Wilbert A. Edwards	do.	149 0	23 10	do.	Delayed by repairs; did not go to France.
John B. Hinton	do.	149 6	23 9	do.	Foundered Apr. 28, 1919.
B. H. B. Hubbard	do.	135 0	22 0	do.	
W. T. James	do.	140 0	22 0	do.	
Kenneth McNeal	do.	147 0	24 0	do.	
Rehoboth	Philadelphia	150 0	24 0	do.	
					Foundered off Ushant, France, October, 1917.

The sweepers, as fitted out for home waters, would be operating practically without fear of molestation from enemy vessels. For these a single 6-pounder gun, mounted forward, was considered a sufficient battery, and a small steaming radius, although undesirable, was not a vital defect. In fact, in these local sweepers additional coal and water capacity was only provided as opportunity offered. But the fitting out of the 12 for distant service opened up a whole series of new problems. It was decided that at any sacrifice the 12 vessels to go abroad must mount two 3-inch guns high enough up to be serviceable in almost any weather. Coupled with this was the requirement that they must have a steaming radius of 2,500 nautical miles, though this was later reduced to 2,000 miles.

The vessels selected were all wooden Menhaden trawlers, and nearly all of the same general design. While they had formerly done more or less outside work they were not, properly speaking, deep-sea vessels, so that from the very beginning it was realized that they would run some risk of being lost on the trip across. The dimensions given above for the 12 show that they were small of beam. Each had one compound engine and one Scotch boiler. They had an unusually high freeboard, forward, giving them a very deep fore-castle compartment in which the fishing crews had been berthed. A very short fore-castle deck was followed by a deck house containing the galley and mess room for all hands. Aft this was a long, wide hatch to the fish hold, a compartment without fore and aft bulkheads and occupying about one-third of the length of the vessel. Aft of this was a small cross bunker, two small wing bunkers with the fireroom between them, and the engine room which extended clear aft to the rudder-post trunk. Over the machinery was a second deckhouse containing the trawl winch forward, a drum room over the boiler, and staterooms aft for the engineer's force. The remaining members of the crew were berthed in either two or three staterooms, which, with the wheelhouse, were built on top of the forward deck house.

As the large fish hatch was an element of considerable weakness it was no surprise to find, on decking these vessels, that they were, in general, badly hogged; that is, the bow and stern had dropped. As the guns would necessarily be mounted well forward the ends it was realized that the refitting of the vessels must contemplate keeping as much weight as possible over the middle of the length, to "iron out," as it were, the hump in the keel. Any longitudinal strengthening was out of the question except as a loss of time which was prohibitive. For hygienic reasons it was determined to deck over all but a small part of the fish hatch, and extend the forward deck house well aft into the waist, thus permitting berthing all the crew in the two deck houses, where they could get ample light and air. The two 3-inch 50-caliber guns were mounted on top of the deck houses, one forward and one aft, both on the center line. Location of the guns in the waist, which would have been much simpler and quicker, was decided against, as in such a position the guns would have been awash in almost any kind of sea. To make room for the forward gun it

was necessary to move the wheelhouse and the whole upper deck house bodily aft several feet. This upper deck house was also extended aft to provide space for a wardroom and sleeping accommodations for the officers. As the deck houses were of relatively light construction and the main deck fairly solid the gun foundations were designed so as to be entirely independent of the deck houses and consisted of structural steel boxes of the same height as the deck houses and standing on a broad, heavy bedplate, bolted directly to the main deck. Having worked out the arrangements for the guns the next consideration was coal and water.

Information as to coal and water consumption was very meager, but with the help of results obtained from a short endurance run on one boat an approximation was arrived at as to the amount needed to steam 2,000 miles. A wooden bulkhead was thrown across the fish hold, so as to give on the after side bunker space, which, when added to the existing bunkers, would carry enough coal for the trip. Forward of this new bulkhead the remainder of the hold was given up to fresh-water tanks, an ammunition locker, ice box, and storerooms. At this time no suitable steam winches were available for installation for handling the mine-sweeping gear, but at a suggestion made by one of the officers attached to the mine-sweeping flotilla a modification of the trawl winch on each boat made it possible to utilize this winch for handling the sweeps. While the resulting installation was not free from drawbacks, it served to tide the boats over until, after their arrival in France, better steam winches were secured.

While these were the principal changes, they represented only a small part of the work to be done. All the electric-lighting and plumbing systems had to be rearranged and extended, coaling scuttles made water-tight, boat davits lengthened or replaced to suit larger Navy boats, berths installed, Navy messing and signaling arrangements fitted, the steering gear entirely remodeled, and additional mast stepped and a radio set put in. While all this was going on efforts were being made to learn something definite about the stability of the vessels. Finally a model representing one of the boats was obtained through Jackson & Sharp, builders, and the drafting room of the Norfolk Navy Yard at once began working night and day on the necessary calculations. Before these were finished, however, a definite but very unwelcome idea was formed as to the stability of the vessels, for in undocking a group of boats which had received their guns, gun foundations, and boat davits while in dry dock it was found that they were alarmingly tender, and several tons of ballast were put on board.

As soon as possible an inclining experiment was made, and working from this, the necessary ballasting was undertaken. But this extra ballast tended to reduce the freeboard, already small, and after a good deal of consideration a better distribution of ballast was found possible, giving the boats the minimum necessary freeboard, with ample stability when loaded and better freeboard with somewhat less stability when their coal and water was consumed.

Owing to the heavy loads imposed on these boats, they worked considerably and had a great deal of trouble with leaks, but finally 11 of them sailed for France and arrived safely. They were at first assigned to escort duty with convoys, but after one of them foundered in a storm it was decided to set them to work mine sweeping. As their 12-foot draft was considered excessive for sweeping, one gun and some ballast was removed to lighten them. They were also fitted with sweeping gear of French design, in which the boats sweep singly, towing the middle of a span which has a water kite on each end.

During the first part of their stay in France the constant discovery of leaks led to frequent requests for dry-docking and calking. In accordance with usual practice the dry-dock blocks were arranged with their tops in a level line, thus making no allowance for the fact that the boats were decidedly hogged. The result was to loosen up some of the calking and tighten up other parts of it, and the boats were recalced in this abnormal condition. When undocked, of course, they immediately tended to return to their original hogged condition, which slackened the seams that had been tight and tightened those which had been recalced, thus starting more leaks.

A few such experiences with these boats naturally led to very pessimistic reports against them, but just about this time one of the officers concerned in their repairs decided to revert to very old-fashioned methods, taking advantage of the great rise and fall of tide on the west coast of France, he landed one boat at high water on a mud flat, thus allowing her to cut into the mud as the tide fell and retain her water-borne shape. Then he went over the calking during the low tides, and when finally floated off the bottom the boat was found to be practically tight, and remained so.

In conclusion it may be said that the conversion of these miscellaneous vessels involved a great deal of work, with results that were necessarily unsatisfactory in some respects, and all who had experience with them looked forward to much better results from the mine sweepers regularly designed and built for the purpose.

NAVAL SALVAGE SERVICE.

In the latter part of 1917 it became evident that it would be necessary for the Government to take steps to supplement the salvage facilities of the private companies, due to the rapid increase in American shipping, practically all of which was operated under Government control. The Assistant Secretary of the Navy took up this matter and called a conference of representatives of the Departments of War, Commerce, Navy and the Shipping Board. The conference was held January 11, 1918, and included, besides the representatives of the Government departments concerned, representatives of the following salvage companies: Merritt-Chapman Derrick & Wrecking Co., T. A. Scott Wrecking Co., Inter-Ocean Co., Yankee Salvage Association.

It was clear that it was essential to the success of our overseas war effort to maintain adequate salvage facilities for all vessels entering and leaving American Atlantic ports. On account of the operation of the draft laws and the commandeering of floating equipment of all kinds by both the War and Navy Departments, it was evident that the existing salvage companies would be seriously crippled, if not actually put out of business; Government control of salvage appeared necessary.

In order to meet the situation it appeared that there were two courses open: First, to commandeer a portion of the plant of each one of the existing companies, or to commandeer one of the companies outright and organize it under Government control, leaving the remainder of the companies to pursue their work on this coast; or, second, to organize all of the existing companies under governmental control and expand from the ground up, using as a basis the existing organizations. After careful consideration of the question, it was decided that the second method was preferable, and the Bureau of Construction and Repair of the Navy Department was directed to make preliminary arrangements for the establishment of a naval salvage service.

At that time there were in existence only three commercial salvage companies with any extensive amount of equipment. These companies were the Merritt-Chapman Derrick & Wrecking Co., the T. A. Scott Wrecking Co., and the Yankee Salvage Association. After the conference, in the office of the Assistant Secretary of the Navy, representatives of the commercial salvage companies conferred and selected Mr. T. A. Scott as their representative. This gentleman cooperated with Capt. M. M. Taylor, of the Office of Chief of Naval Operations, and Capt. J. D. Beuret, of the Bureau of Construction and Repair; and as a result of their consideration of the question a report was submitted to the Assistant Secretary of the Navy, which in part is as follows:

"1. Following the conference held Friday, January 11, 1918, on the question of extending the salvage facilities of this country to provide for carrying on salvage operations in Europe the undersigned, in accordance with your instructions, considered the question further in conjunction with Mr. T. A. Scott, representing the salvage companies, and also discussed the matter with representatives of the Merritt-Chapman Co. and with representatives of three or four of the smaller companies, and submit the following report:

"2. The purpose of the department is understood to be to send abroad as early as practicable as many salvage units as can be manned and equipped by the use of equipment and personnel at present available, without reducing the salvage facilities in actual use on the coast of the United States; and to provide for sending abroad additional units as rapidly as vessels and equipment can be provided and personnel can be trained, this also to be without reducing the salvage facilities in actual use on the home coast. It is understood further that the personnel of all salvage units sent to Europe should be enrolled in the Naval Reserve, but that this is not considered essential for personnel operating on the home coast.

"3. We are of the opinion, as a result of the preliminary inquiries made, that four or five salvage units could be equipped and manned with trained personnel, as rapidly as vessels could be made available, without interfering to any material extent with the organization or operations of the salvage companies now in existence, the Government providing vessels now in the naval service or engaged

in other work and taking over from the salvage companies such equipment as they can spare without interfering with operations in hand or immediately in prospect.

"We understand, however, that the Navy Department contemplates placing in service a larger number of units than could be provided in this manner, and the manning and equipping of a large number of salvage units would involve a rapid expansion of the personnel engaged in salvage work, which would necessitate training new personnel for the work and would involve the purchase of a large amount of new equipment. As the personnel and equipment now engaged on salvage work are understood to be approximately adequate for the work in hand and in prospect, the training of additional personnel would necessitate either the taking over by the Government of the salvage facilities now in use or the close control of the operations of these companies and their compensation for the training of the additional men required. In addition it will be necessary to provide for the orderly manning of such additional units as may be equipped for foreign service, talking for this purpose from the personnel now engaged in salvage work or the new personnel trained for this service. We are of the opinion that to adequately meet all the conditions of this rapid extension of the salvage facilities it will be necessary for the Government to take over control of the companies and operate them as a military organization, enrolling in the Naval Reserve all of the men in charge and as many as possible of the men in subordinate positions, but it should be practicable to employ effectively on home work a certain proportion of men who may require to be retained in a civil capacity, due to their citizenship or other difficulties that might prevent their enrollment.

"4. If it is decided to extend the salvage work undertaken by the Government, as proposed above, we are of the opinion that this extension should be limited to what is necessary to meet the requirements of the situation abroad. In the case of the small companies, the personnel and equipment is engaged exclusively, or in great part, on salvage work, but in the case of the larger companies, a part of the personnel is engaged wholly or in great part in the handling of weights, transportation, and engineering work. We are of the opinion that it will be sufficient for the Government to organize for carrying on the coast salvage work, leaving work in inshore waters to be undertaken by private companies as at present. The line of demarkation between the work handled by the Government and the work handled by private parties, when the Government extends the salvage facilities at its command, will establish itself in the same manner as the line of demarkation between Government work and private work under present conditions—the Government undertaking such work as its facilities permit, and the remaining work being undertaken by private enterprise.

"5. Once the action to be taken by the Government is decided, compensation for the vessels and equipment taken over by the Government for use in salvage work can best be arranged by negotiations with each individual concern. So far as the question of compensation is concerned, the equipment in use divides itself into three classes: (a) Vessels and lighters; (b) permanent equipment, such as pumps, hoisters, etc.; (c) consumable equipment and supplies, such as hawsers, small tools, lumber, etc. Class (c) should be taken over by purchase outright. For classes (a) and (b), purchase outright, purchase with an option for repurchase by the present owner on the termination of the war, or a rental might be considered. Due to the possibility that the Government may continue handling salvage work after the termination of the war and to the fact that the proposed great extension of salvage facilities will profoundly affect conditions so far as concerns private companies, whether the Government remains in the business or not, it would appear that either purchase outright or purchase with an option for repurchase by the present owner will probably be the best method. This, however, is a question which affects the private companies more than the Government and considerable weight could be given to the wishes of these companies in the matter. It is noted that the taking over of the personnel and equipment, as proposed, will in all probability require the salvage companies to go out of business or to reorganize for the purpose of handling other work, and that it will be difficult and may be impracticable to reconstitute the business on the present line after the termination of the war. These conditions do not affect all concerns equally, but it will be necessary to consider them in adjusting the compensation arrived at for vessels and equipment taken over.

"6. Another matter that should be considered in connection with the taking over of salvage facilities by the Government, is the question of compensation to be paid by owners and insurers for salvage work undertaken. The rescue work now undertaken by the Government is without compensation, but it is questionable if such a procedure would be desirable after the change proposed above, at least for foreign vessels and until insurance could be adjusted to meet the change in conditions. Two methods of compensation might be considered: First, the payment for services rendered, on a day-rate basis, the rate being adjusted to cover the large overhead charges incident to this business; and, second, the payment for each job, of a sum to be determined by a board of arbitration on which representatives of the Government and of the owner or insurance company would sit. The latter method would cause least change in the present conduct of the business, but if it is considered that the undertaking of salvage operations by the Government is likely to continue for a considerable time, the former method would probably prove the more satisfactory.

"7 We are of the opinion that the most satisfactory method of handling the change if it is decided on, will be to enroll four or five experienced salvage men and call them to active service as early as possible, so that they may be used in connection with a survey of the situation abroad, with the enrolling of the personnel required for the proposed organization, with the arrangements for training additional personnel, with the listing of vessels and equipment now available, and with the ordering of such additional vessels and equipment as may be necessary. The personnel required for the organization should be enrolled in the reserve as rapidly as practicable, but the vessels and equipment should be taken over and the necessary personnel should be called to active service in such way and at such times as will permit the present companies to operate effectively until such time as each part of the work can be taken up by the Government.

"8. After considering the present organization of the business and the probable future needs, we are of the opinion that there should be established six home stations, one each at Boston, New London, New York, Norfolk, Key West, and the West Indies, and that arrangements should be made for equipping at least five units for foreign service as early as practicable. To provide for the training of personnel for manning the additional units for foreign service, which it is proposed to send abroad at a later date, the home stations should be manned with double force as rapidly as possible so that extra personnel may be available for the purpose."

The report was forwarded by the Assistant Secretary to the Secretary of the Navy with the following indorsement:

"Approval of the above general plan for taking over wrecking equipment and establishing a wrecking service on the Atlantic coast and in European waters under the Navy Department is requested.

"Referring to paragraph 6, in regard to the question of compensation to be paid by owners and insurers for salvage work undertaken by the Government, it is suggested that this matter be gone into carefully by the solicitor. In my judgment, the first method of compensation suggested is the best, i. e., that payment be placed on a day-rate basis, the rate being adjusted to cover the large overhead charges incidental to this business, including unsuccessful attempts at salvage, etc., in other words so that the Navy Department could place this salvage work on a self-sustaining basis as far as possible without, of course, any profit to the Government.

"The enrollment of officers suggested is very modest in its scope.

"It is important to get this work started as soon as possible by the immediate enrollment of the three or four men who are to cooperate with the Chief of Operations and the Bureau of Construction and Repair in organizing the work here and abroad."

Under date of January 26, 1918, the Secretary of the Navy approved the report and directed the bureaus of the Navy Department to take the necessary action to carry out the recommendations for establishment of a naval salvage service.

The first step taken by the Bureau of Construction and Repair in connection with the execution of the department's orders was to have enrolled as naval constructors in the reserve force the following persons: T. A. Scott, W. W. Wotherspoon, W. N. Davis.

Lieut. Commander Scott was placed in direct charge of the salvage work of the bureau, under the Maintenance Division, supervised by Capt. Beuret, and

arrangements were made to send Lieut. Davis and Lieut. Wotherspoon abroad for the purpose of investigating conditions to be met in connection with the work in European waters so that more complete information might be available in manning and equipping vessels for that service. Arrangements were also made to proceed with the listing of salvage vessels and equipment available, and for the enrollment of experienced personnel.

The organization established for salvage operations on the Atlantic coast was indicated in an order issued by the Secretary of the Navy as follows:

"For convenience in handling salvage operations by the Navy Department, the Atlantic and Gulf coasts and adjacent waters will be divided into three districts with permanent stations as given. Additional stations as may be necessary from time to time will be established by the Chief of Naval Operations on recommendation of the Bureau of Construction and Repair. The districts will be as follows:

"Northern district to include all the coast from the northern boundary of the United States to Shinnecock Light on the southern shore of Long Island, and Long Island Sound as far west as Bridgeport and Port Jefferson. The permanent stations in this district will be at New London, Conn., and Boston, Mass.

"Central district to continue from the southern limit of the northern district to the boundary line between Georgia and Florida. The permanent stations in this district will be at New York and Norfolk.

"Southern district to continue from the southern boundary of the central district to the southern limit of the United States and also the Gulf of Mexico and Caribbean Sea. The permanent stations in this district will be at Key West, Fla., and Guantanamo, Cuba.

"Salvage operations in each salvage district will be under the direction of the district salvage officer who will be ordered to report to the Bureau of Construction and Repair for this duty. The officers in charge of salvage stations will report to the district salvage officer and also to the commandant of the district in which the station is located. For administrative purposes the salvage stations with their personnel, vessels, and equipment will form a part of the district organization, but the movements of vessels and the handling of equipment in connection with salvage operations will be under the direction of the district salvage officer subject to the military control of the commandant of the district in which operating."

This order also contained instructions as to the steps that should be taken to insure prompt service and cooperation in the case of vessels reported in distress, and these were supplemented by the bureau in the following letter to district salvage officers:

"1. The bureau has selected for district salvage officers in the several salvage districts officers who have had long experience in salvage work, and desires to give them as much latitude as practicable in conducting salvage operations, subject to such supervision by the bureau as is necessary to apply most effectively all the facilities available.

"2. District salvage officers should keep in mind that the facilities under their immediate charge will not be sufficient to handle all salvage operations which they will be called on to perform. It is necessary that these facilities be supplemented at times by the other Government facilities that may be available and by private facilities when necessary. As the first step in making such facilities readily available, lists should be prepared of Government personnel, vessels, and equipment in the several naval districts, and of private personnel, vessels, and equipment in the several ports included in the salvage district which are suitable for work in connection with salvage operations, so that when additional assistance or equipment is needed the district salvage officer may know on whom to call.

"3. Salvage stations should be provided with the equipment and materials necessary for carrying on the ordinary run of operations. When additional material or equipment is required for a special job, it will be obtained when practicable from the most convenient naval supply officer. It may, however, be necessary in special emergencies to procure supplies or equipment without the delay that would be involved by purchase through the regular channels, and arrangements have been made with the Bureau of Supplies and Accounts to designate the district salvage officers special purchasing agents for that bureau for the procurement of supplies and the hire of equipment in an emergency. Such purchases or hire should be limited strictly to what is

actually necessary in an emergency, material and equipment being procured in the regular manner whenever possible.

"4. The district salvage officer will arrange for the keeping of a log of operations by the officer in charge of each operation, which log should be accompanied by such photographs as may be necessary to properly illustrate the character of the work, and by a list of expenditures, losses and damages. The log of operations will be submitted to the district salvage officer, by whom it will be forwarded to the bureau after being examined and checked by him.

"5. Commandants of naval districts have available facilities for obtaining and transmitting information of movements of vessels and other happenings in their districts. In order to make full use of these facilities the district salvage officer will place himself in immediate touch with the communication office located nearest his headquarters and will arrange for placing each salvage station in his district in close touch with the communication office nearest the station. It will be necessary for the district salvage officer to make arrangements for a continuous watch being kept in his office. The bureau is arranging to establish a continuous watch, which will be in immediate touch with the Communication and Ship Operations Offices of the Navy Department, so as to have available with the least possible delay all information of value in connection with salvage work and to permit ready consultation between the several districts and the bureau.

"6. The district salvage officer will ordinarily consult the bureau prior to making arrangements for assisting vessels in distress, but where consultation with the bureau would cause delay in proceeding to a vessel's assistance, he will himself take such steps as are immediately necessary. In the latter case he will instruct his office to immediately communicate to the bureau information of the steps being taken and will himself take the earliest practicable opportunity to consult with the bureau relative to the work.

"7. The attention of district salvage officers is especially invited to the necessity for keeping the commandant of each naval district fully informed of work under way in his district. Advance notification of proposed salvage operations will greatly facilitate the procuring of assistance from the commandant of the district and will frequently enable the commandant to arrange for such assistance being given where it would be impossible on a sudden call.

"8. The district salvage officer will take early opportunity to discuss in person with the proper representatives of the commandants of the several naval districts included in the salvage district the vessels and equipment most readily available for assistance in salvage operations, the best method of arranging for additional assistance when required, the best method of handling communications between the districts, his office and the several salvage stations, the character of the information which should be furnished relative to vessels in distress, and the arrangements practicable for furnishing expert advice in connection with emergency work that may be undertaken by vessels other than those assigned for salvage work."

The district salvage officers were:

Northern district.—(a) Boston headquarters, Lieut. R. S. Gardner; (b) New London office, Lieut. A. J. Davis.

Central district.—(a) Stapleton, Staten Island, headquarters, Lieut. Commander Walter N. Davis; (b) Norfolk office, Lieut. Commander H. R. Foster.

Southern district.—Key West, Fla., headquarters, Lieut. Commander John Johnson.

European district.—Brest, France, headquarters, Lieut. Commander W. W. Wotherspoon.

In addition to commandeering the salvage equipment, including vessels belonging to the largest salvage companies, arrangements were made to enroll former employees of these companies in the Naval Reserve Force as officers or enlisted men in ranks and ratings as best qualified. These men formed the greater portion of the naval salvage service. Additional personnel for the salvage vessels and stations was obtained by enrolling in the reserve force specially qualified civilians and by detailing for that duty certain Regular Navy men who were especially fitted for salvage work, such as gunner's mates with diving experience.

Salvage equipment belonging to the Merritt-Chapman Derrick and Wrecking Co., the T. A. Scott Wrecking Co., and the Yankee Salvage Association was commandeered by the Navy Department and ultimately paid for as follows: \$1,430,000, to Merritt-Chapman Derrick and Wrecking Co.; \$150,000, to T. A. Scott Wrecking Co.; \$250,000, to Yankee Salvage Association.

This material was drawn upon to equip the several home salvage stations and vessels as well as the foreign salvage unit, the U. S. S. *Favorite*, a vessel specially designed for salvage, and selected as the most suitable for work abroad. This vessel sailed for Europe June 7, 1918, in command of Lieut. Sloan Dannenhower, U. S. N. R. F., an experienced wrecker, and arrived at Brest early in August, 1918, by which time the three home districts had been fully manned, equipped, and in efficient operating condition.

The salvage equipment commandeered from the commercial companies included the salvage steamers *Relief*, *Resolute*, and *Rescue*, the tugs *Macomber* and *Casco*, and the derrick lighters *Salvor*, *Addie*, *Chittenden*, *Seymour*, and *Sharp*. In addition the steamer *Biesboch* was obtained from the Shipping Board and fitted as a salvage vessel and the Coast Guard cutter *Acushnet* was assigned to salvage duty. The steamer *I. J. Merritt*, which was under construction as a salvage ship was also commandeered and work continued by the Navy Department, but had not been completed at the time the naval salvage service was demobilized. The same was true of the steamers *Chesapedke* and *Manna Hata*, which were commandeered by the department on August 31 and September 7, 1918, for fitting out as additional units for European service. These vessels were ready, however, in time to sail for Brest in May, 1919, the foreign salvage being continued through the summer.

As already indicated, the *Favorite* was the first salvage vessel sent abroad, arriving in Brest on August 5, 1918. On August 6, 1918, Lieut. Commander Wotherspoon assumed duty as force salvage officer in France, and on September 4 Commander C. W. Fisher, C. C., reported as force naval constructor, his duties including matters pertaining to salvage.

Salvage operations abroad had practically ceased by the end of August, 1919, having been continued in the meantime on the basis of a cablegram from Admiral Benson in January, that "It would be inconsistent for us to discontinue salvage service while large numbers of Government vessels are operating to and from French ports," during which period "it is not unlikely that on account of reduction of escort vessels and piloting vessels, the number of groundings and injuries from collision may be considerable." Following are extracts from a report forwarded by Commander Fisher on September 1, 1919:

"Immediately upon her arrival in France, the U. S. S. *Favorite* found work and plenty of it, and was in fact kept continuously occupied up to the date of her departure.

"The first step was to establish a base, or combined storehouse and barracks where excess personnel could be housed and where gear could be overhauled without interfering with the continual state of readiness for an emergency, which is, of course, essential for a salvage and rescue vessel. There was a considerable quantity of excess gear on the U. S. S. *Favorite*, because she had brought over to France salvage equipment to be used on the vessels that were to follow her. Furthermore, in anticipation of the arrival of the other vessels, the salvage division immediately took steps to procure from England, a complete outfit of electric submersible pumps for driving by alternating current and direct current, a number of Allen centrifugal pumps, additional diving apparatus of the most modern type and the necessary suction and discharge hose with other fittings, to provide complete outfits for each of these vessels. No suitable space on shore being available for the storing of this material, the hull of an old composite French warship, the *Romengol*, was moored in the inner harbor, the U. S. S. *Favorite* tied up alongside, and the *Romengol*, in a short time converted into the semblance of a floating base, in which were stored boilers, pumps, hoisting engines, diving gear, hawsers, and bench gear; and a very complete stock of spare suction, elbows, flanges, foot valves, lumber, and other miscellaneous material. In addition, a small workshop was built on deck, and the after portion was fitted up for berthing and messing about 20 men. A very complete photographic dark room was also installed. The work required was considerable because the *Romengol* leaked through the bottom, the sides, and the decks—in fact, it was necessary to practically rebuild the upper deck and to materially strengthen the 'tween deck. The hull at all times leaked to such an extent as to justify the installation of a special pump. Notwithstanding these inconveniences, the old *Romengol* proved to be an invaluable asset to the salvage division.

"The U. S. S. *Favorite*, in addition to her radio equipment was equipped with radio telephone, and was thus, at all times in close communication with the port office and the flag at Brest, which in turn was in radio or telephone communication with practically the whole west coast of France, so that a

salvage vessel could be gotten under way within one hour after receipt of news of a wreck. In addition to the U. S. S. *Favorite*, two of the best seagoing tugs stationed at Brest were always held available as rescue vessels to proceed to the scene of disaster for rendering first aid, and for the rescue of personnel. Additional rescue vessels in the form of destroyers were also available during the time these boats were stationed at Brest.

"The organization for salvage work was simple, but effective. The first salvage division, as it was called, operated directly under the flag, and the force salvage officer directed its general conduct, being responsible for the efficiency of the division as a whole, the selection of salvage vessels for particular salvage jobs, and the general methods to be pursued in each case. The wreckmaster of each salvage vessel was in direct charge of all actual salvage work, and was given full authority over the vessel in distress from the moment of his arrival. He was also empowered to call upon all branches of the United States Navy for such assistance as he might require. The commanding officer of the salvage vessel, so far as concerned actual salvage work, was subordinate to the wreckmaster. The force naval constructor acted as the representative of the flag in matters pertaining to salvage, especially the repairing and docking of salvaged vessels.

"Upon the departure of the force salvage officer of the United States the force naval constructor was given this duty in addition. The responsibility of the salvage division ceased when the damaged vessel was delivered in a floating condition in harbor or at a dry dock, but as a matter of fact, due to the excellent repair facilities on board the U. S. S. *Favorite* and the ability of her personnel, it frequently completed the necessary repairs after the actual salvage. No distinction was made in regard to ownership of vessels needing assistance. On account of the lack of French salvage appliances the First Salvage Division rendered aid to any vessel in difficulties no matter what her nationality.

"When fully equipped, there is no doubt, that the U. S. S. *Favorite* was the best equipped salvage vessel in the world, and that her compressed air arrangements were far in advance of anything owned by foreign nations.

"In order to care for the numerous small pumping and diving jobs, especially those in shallow water, the steamship barge *Frieda*, which had been obtained for harbor work in Brest from the British Admiralty, was, in September, 1918, turned over to the salvage division and fitted with one Schramm air compressor, one straight-line air compressor, one 6-inch Worthington pump, three or four diving outfits, and a hoisting boom on the foremast with a capacity of about 1 ton. The *Frieda* is what is known as a 'Liverpool lighter,' with about 6-foot draft and about 100 feet long, single screw, steam driven, with the machinery in the extreme after end of the boat, thus rendering the whole forward part available for cargo hold or salvage gear. With a crew of a chief petty officer in command and five men, the *Frieda* has operated on the average of 12 hours a day, and has proved herself to be one of the best small auxiliary salvage units in existence. She has even been towed by the U. S. S. *Favorite* as far south as La Pallice, and has worked in St. Nazaire and Quiberon Bay, in places where the depth of water was too small to permit the U. S. S. *Favorite* to enter. Her principal service has, however, been that of a diving boat wherein she had become an expert in the replacing of ship's propellers under water, and that of keeping the numerous harbor craft in Brest free from water. The *Frieda* has been in salvage service since September, 1918, and will probably be one of the last salvage units to be disbanded.

"Notwithstanding numerous urgent telegrams for additional salvage vessels it became evident that no additional units would arrive from the United States until the spring of 1919. Steps were, therefore, taken to increase the salvage division by utilizing available vessels in Europe.

"The first of these was the U. S. S. *Victorine*, ex-*Utozana*, a steel, single screw mine-sweeper, that had operated out of Lorient during the war. She was approximately 124 feet long, with a 24-foot beam, but had the disadvantage of drawing about 15 feet. She had previously been fitted as a fishing boat on the Atlantic coast of the United States. In February, 1918, she was assigned to the salvage division; part of her deckhouse, aft, was cut away; heavy towing bits installed in this location; the crew's galley moved forward; magazines and holds cleared out for additional personnel and for salvage gear; and a turbo-generator set installed in the engine room for providing submersible pumps. These alterations, together with the placing on board of such salvage gear as her size would accommodate were completed about the middle of March, 1919, and after a few small jobs in Brest, she was, on April 5, 1918, sent to St.

Nazaire as salvage vessel for that district. Her operations from then on comprised miscellaneous work at the mouth of the Loire; the recovery of sunken coal barges near Bordeaux, in the Gironde River, and miscellaneous work along the coast. As American sailings decreased her work fell off, and on July 11 she was returned to Brest, finally sailing for the United States, via the Azores, on July 25, 1919.

"It became evident about the 1st of October, 1918, that if the war continued and the United States shipping continued in the Mediterranean, it would be necessary to have an effective salvage unit in those waters, because, though the Italians had contemplated rather elaborate plans for ship salvage, they had not succeeded in placing in operation any salvage vessels. Although it was desirable to have two vessels, one in Italian waters to handle also the work in the Levant, and another at Gibraltar, it was possible to obtain one vessel only. On account of the fact that most of the submarine activity was in the vicinity of Gibraltar; and furthermore, that our largest naval base in the Mediterranean was located there, it was decided to make Gibraltar the salvage base for the Mediterranean.

"Accordingly, after consultation with Admiral Niblack at Gibraltar, the U. S. S. *Seneca*, an ex-Coast Guard vessel, was sent to Brest on January 5, for transformation into a salvage vessel. On her way up she was stopped to assist in the investigation of the wreck of the *Tenadores*, off the Ile de Yeu, after which she assisted in the salvaging of the U. S. S. *Appelles* in Quiberon Bay. The alterations consisted in cutting away the deck house aft and installing towing bits and the placing on board of the usual salvage equipment of hawsers, anchors, pumps, diving gear, etc.

"The U. S. S. *Seneca* was completed about the end of March and took station at Gibraltar. Her work in the Mediterranean was finished in May, and on May 10, 1918, she arrived in Brest, had her salvage equipment removed, and was placed on other duty, finally departing for the United States on June 17, 1919.

"The U. S. S. *Manna Hata* arrived after practically all important salvage work in sight had been completed, and the necessity for maintaining a salvage section was only dependent upon the casualties that might occur among the transport and cargo vessels belonging to the United States. The *Manna Hata* is a better seaboat than the *Favorite*, but her hoisting capacity is much less, being only 8 tons forward and 4 tons aft. Aside from this lack, she is a very efficient salvage vessel, completely equipped with salvage gear, and has, in addition, fine standard workshop installed on the 'tween decks aft, comprising seven or eight belt-driven machine tools with workbenches, hand tools, etc.

"The U. S. S. *Chesapeake* is a sister ship of the *Manna Hata* and arrived simultaneously with that vessel. There not being sufficient work to require both vessels, on August 3, 1919, the *Chesapeake* left Brest to form part of the mine-sweeping force at Kirkwall, Scotland.

"During all of the operations of the first salvage division in Europe, the activities of Lieut. Commander W. W. Wotherspoon were felt. By virtue of his long experience in salvage work, and his energy, he can be considered largely responsible for what success the salvage division has had, and to him unquestionably belongs the credit for the successful working out of the organization, the obtaining of the necessary material from England and the United States to complete the equipment, and the logical distribution of this material among the vessels of the division. Lieut. Commander W. W. Wotherspoon was personally engaged in every important job handled by the division and deserves particular credit for his courage in recovering the body of a sailor who had been overcome by smoke and fumes in a dangerous fire on one of the vessels salvaged by the first salvage division."

"It must be borne in mind that in addition to the work listed, the salvage division was continuously occupied in handling heavy weights, assisting in harbor movements, helping out in repair jobs, and in general holding itself at all times in readiness to proceed to the scene of a possible wreck.

"The work of the first salvage division in Europe has unquestionably demonstrated the desirability of Government operation of salvage vessels, in that the cost of the salvage work performed to the United States Government, even including the value of the vessels themselves and their alterations, is undoubtedly 50 per cent less than the charges that would be made by commercial concerns. As a measure of war preparedness, it is submitted that the maintenance by the United States Navy of one or two complete salvage units has been proved ex-

tremely desirable, and it is hoped that the record of the first salvage division will assist in attaining this end."

At the date of the signing of the armistice, vessels of the naval salvage service were assigned as follows:

Boston, Mass.: *Acushnet*, Coast Guard cutter; *Salvor*, derrick lighter.

New London, Conn.: *Macomber* and *Casco*, tugs; *Addie*, derrick lighter.

New York, N. Y.: *Relief* and *Resolute*, salvage steamers; *Crittenden* and *Seymour*, derrick lighters; *Superior*, schooner.

Fitting out for general service: *I. J. Merritt*, salvage steamer.

Fitting out for European service: *Chesapeake* and *Manna Hata*, salvage steamers.

Norfolk, Va.: *Rescue*, salvage steamer; *Sharp*, derrick lighter.

Key West, Fla.: *Biesbosch*, salvage steamer.

Brest, France: *Farorite*, salvage steamer; *Victorine* (formerly *Utowana*), yacht; *Freida*, steam barge; *Seneca*, Coast Guard cutter.

The naval salvage service was operated on a commercial basis in accordance with authorization contained in naval act of July 1, 1918, which provides as follows:

"That hereafter the Secretary of the Navy is authorized to cause vessels under his control adapted to the purpose to afford salvage service to public or private vessels in distress: *Provided*, That when such salvage service is rendered by a vessel specially equipped for the purpose or by a tug, the Secretary of Navy may determine and collect reasonable compensation therefor."

There is appended a statement of vessels in United States waters for which salvage service was furnished during the period of naval operation, and also of the operations abroad. The approximate cost of all service in home waters to May 15, 1919, was \$407,000, which covers the cost of operating the vessels when actually engaged in rendering assistance, together with cost of equipment expended. The compensation received for such services on merchant and Shipping Board vessels was about \$426,000.

The naval salvage service in United States waters was demobilized May 15, 1919. On this date all naval salvage vessels and the salvage equipment afloat and ashore in the United States were returned to the T. A. Scott Wrecking Co. (who also represents the Yankee Salvage Association), and the Merritt-Chapman Derrick & Wrecking Co. The *Manna Hata* and *Chesapeake* were sold abroad and the barge *Freida*, which had been chartered, was returned to her owners during October, 1919, the hulk *Romengol* having previously been turned back to the French Government.

Salvage operations, home waters.

COMMERCIAL VESSELS.

Name of vessel.	Approximate date.	Nature of service.
(a) Salvage service successfully furnished:		
Bk. Etoll Polaire.....	Dec. 23, 1918.....	Towing.
Tug Progress.....	Nov. 26, 1918.....	Diving.
S. S. Novian.....	Feb. 3-17, 1919.....	Floating.
Old Dominion Marine R-way.....	Feb. 13, 1919.....	Diving.
S. S. Paloma.....	Feb. 25-Mar. 3, 1919.....	Diving and patching.
S. S. Ansaldo III.....	Jan. 16-25, 1919.....	Towing.
Derrick Chief.....	Jan. 26, 1919.....	Fire service.
S. S. Dancer.....	Feb. 14, 1919.....	Towing.
Barge Elmendorf.....	Mar. 14, 1919.....	Floating.
R. T. Somers.....	Mar. 2, 1919.....	Diving.
Schr. Hesper.....	May 5, 1919.....	Launching.
Old Dominion S. S. Co.....	Mar. 30, 1919.....	Diving.
Barge Maryland.....	Mar. 30-31, 1919.....	Towing.
S. S. Wahkiakum.....	Mar. 29, 1919.....	Floating.
Norfolk, S. B. & D. D. Co.....	Apr. 10, 1919.....	Diving.
S. S. Laennic.....	Apr. 7, 1919.....	Towing.
S. S. Alcona.....	Apr. 29-May 6, 1919.....	Diving.
S. S. Boxley.....	Mar. 22, 1919.....	Floating.
S. S. Hoxie.....	May 8-12, 1919.....	Towing.
National Stevedoring & Shipping Co.....	May 5, 1919.....	Raising lighter.
A. S. S. Ellen.....	Dec. 21, 1918-Jan. 9, 1919.....	Raising and towing.
B. Schr. O. M. Clark.....	Oct. 29-Nov. 4, 1918.....	Diving, patching and raising.

Salvage operations, home waters—Continued.

COMMERCIAL VESSELS—Continued.

Name of vessel.	Approximate date.	Nature of service.
(a) Salvage service successfully furnished—Continued.		
C. Elizabeth Dantzler.....	Oct. 30, 1918-Dec. 2, 1918....	Fire service, diving, pumping.
S. S. F. R. Kellogg.....	Aug. 14-28, 1918.....	Raising, patching, towing.
S. S. Thyra, S.....	Nov. 3, 1918.....	Floating.
S. S. Carib.....	Nov. 21-24, 1918.....	Do.
S. S. L. A. McKee.....	Nov. 24-Dec. 2, 1918.....	Floating, diving.
Schr. A. M. Davenport.....	Nov. 29, 1918.....	Floating, towing.
Schr. Geneva Kathleen.....	Jan. 8-Feb. 3, 1919.....	Do.
S. S. Pusev Jones No. 4.....	Mar. 13, 1919.....	Floating.
S. S. Korsfjord.....	Apr. 6, 1919.....	Do.
S. Devergo.....	Apr. 7-11, 1919.....	Floating, pumping, towing.
Bark Bofeldieu.....	Mar. 31-Apr. 8, 1919.....	Floating, towing.
S. S. Trevaylor.....	Apr. 21, 1919.....	Floating.
Schr. Amparo.....	Feb. 15-Mar. 5, 1919.....	Salving, towing.
(b) Salvage attempted, but abandoned:		
S. S. Port Hunter.....		
S. S. Port Philip.....		
S. S. Hesper.....		
(c) Assistance sent, but vessels floated before arrival, are beyond saving:		
Schr. Lucka.....	January, 1919.....	
S. S. Wishkah.....	February, 1919.....	
S. S. Fondulac.....	do.....	
Bk. Genl. Gordon.....	do.....	
S. S. Oneida.....	March, 1919.....	
Gas bark Teasin.....		

SHIPPING BOARD VESSELS.

S. S. Mahoning.....	Aug. 3-Sept. 6, 1918.....	Patching, raising, and towing.
S. S. Lake Bledsoe.....	Oct. 29-Nov. 1, 1918.....	Floating.
S. S. Bedminster.....	Dec. 24, 1918-Jan. 22, 1919.....	Floating and towing.
S. S. West View.....	Jan. 27-30, 1919.....	Removing cargo and floating.
S. S. Blandon.....	Jan. 9-12, 1919.....	Floating.
S. S. Sassenheim.....	Feb. 13-24, 1919.....	Removing cargo and floating.
S. S. Elizabeth.....	Mar. 7-27, 1919.....	Removing cargo, floating, and towing.

GOVERNMENT VESSELS.

U. S. S. Garner.....	July, 1918.....	Diving and floating.
U. S. S. St. Johns.....	October, 1918.....	Diving, patching, and floating.
U. S. S. America.....	do.....	Floating.
U. S. S. Grapeshot (lighter).....	December, 1918.....	Raising.
U. S. S. Northern Pacific.....	January, 1919.....	Transfer passengers, cargo, and floating and towing.
U. S. S. West Humhaw.....	do.....	Recovering anchor and chain.
U. S. S. W. L. Steed.....	February, 1919.....	Floating.
U. S. S. S. P. No. 78.....	do.....	Raising.
U. S. S. No. 51 (barge).....	do.....	Do.
U. S. S. Hopestill.....	do.....	Raising and towing.
U. S. S. Aztec.....	do.....	Patching, pumping.
U. S. S. C. 440.....	Mar. 1919.....	Floating.
U. S. S. C. 43.....	do.....	Do.
U. S. S. William (coal barge).....	March, 1919.....	Raising.
U. S. S. No. 91 (lighter).....	April, 1919.....	Floating, patching, and towing.
U. S. S. Oklahoma (launch).....	do.....	Raising.
U. S. S. P. 24 and 121.....	March, 1919.....	Floating.

Salvage operations, home waters—Continued.

VESSELS ASSISTED BY THE FIRST SALVAGE DIVISION IN EUROPE.

Name of vessel.	Approximate date.	Nature of service.
S. S. Westward Ho.....	August, 1918.....	Torpedoed.
U. S. S. Westbridge.....	do.....	Do.
S. S. Ausable.....	September, 1918.....	Ashore.
U. S. S. Mount Vernon.....	do.....	Torpedoed.
S. S. Ausable.....	October, 1918.....	Collision.
S. S. Nijni-Novgorod.....	do.....	Do.
U. S. S. Celebes.....	do.....	Fire.
U. S. Army tug San Luis.....	do.....	Fire and stranded.
S. S. Reresby (British).....	November, 1918.....	Collision and stranded.
U. S. S. Lake Damita.....	do.....	Ashore.
S. S. Suzanne St. Marie (French).....	do.....	Do.
U. S. S. Conner (destroyer).....	do.....	Do.
U. S. S. Moldgaard.....	December, 1918.....	Do.
S. S. War Clarion (British).....	do.....	Do.
U. S. S. Appeles.....	do.....	Do.
U. S. S. Tenadores.....	do.....	Do.
Lighter Corbeau (French).....	January, 1919.....	Do.
U. S. S. Narragansett.....	February, 1919.....	Do.
Barge Douglas.....	March, 1919.....	Sunk.
U. S. S. Santa Olivia.....	do.....	Leaks.
Coal barge.....	do.....	Sunk.
U. S. S. Courtney.....	do.....	Ashore.
S. S. Hisko.....	do.....	Leaks.
S. S. Challenger.....	April, 1919.....	Disabled at sea.
U. S. S. West Galatea.....	do.....	Broken propeller.
U. S. S. Anderton.....	do.....	Leaks.
Barge Dane.....	do.....	Sunk.
U. S. S. Teresa.....	do.....	Disabled at sea.
U. S. S. Western Scout.....	May, 1919.....	Do.
Army barge No. 36.....	do.....	Sunk.
Army pile driver.....	June, 1919.....	Do.
U. S. S. Yarnall.....	do.....	Damaged propeller.
U. S. S. Eurana.....	do.....	Leaks.

MARINE CAMOUFLAGE.

Steel vessels of the United States Navy, which were originally painted white as a matter of habitability and appearance, were given a "war color" at the beginning of the conflict with Spain, in 1898, to decrease their visibility, and the question as to the best color for such purpose was considered from various viewpoints and under varying conditions during the years that followed. Different shades of gray, varying from light fog color to dark slate, were experimented with, but the shade which might seem to afford the best protection under certain conditions of atmosphere, sea, and background would appear less effective under somewhat different conditions, and the official gray color, although standardized, was changed slightly from time to time during the 18 years that followed. In later years torpedo craft were painted various shades of green, some nearly black, to decrease the visibility of such types, more particularly for night work, exposed to searchlights. Although standard paints were issued ready mixed to the fleet, the results obtained were never altogether uniform, due, in part, to the darkening of the gray shades with the lapse of time following application.

In the late nineties the Germans decided to paint their vessels dark gray, and Great Britain changed from black to gray about the same time, also using a darker shade than the American standards. Other navies, including the French, Austrian, and Italian, adopted standard colors, which might be generally described as a mixture of gray and khaki.

Early in the World War it was realized that the great problem was to frustrate attacks by submarines, merchant shipping being their particular prey, and that this must be accomplished by deception or "camouflage," rather than by attempting to reduce visibility. The method adopted by the British, after much study and experiment, was termed the "dazzle" system. It was not until the spring of 1917, however, that the dazzle branch of the British Admiralty was definitely organized, in charge of Lieut. Commander Norman Wilkinson, R. N. V. R., who had made a comprehensive report on the subject,

with recommendations which were approved by the Admiralty. This officer later visited the United States, at the request of the Navy Department, as referred to below, and his recommendations were also taken up by the French.

A report of Lieut. Commander Norman Wilkinson, R. N. V. R., Rear Admiral Greatorex, R. N., July 16, 1917, states that the painting of merchant vessels—

"Is based on the general assumption that it is impossible to obtain invisibility at sea, especially where, as in the case of an attacking submarine, the object is seen against the sky, with practically no sea to form a background.

"A submarine on the lookout for enemy ships will in all probability locate a vessel by her smoke, even when hull down, so that no color scheme aiming at invisibility is likely to save a vessel from attack. Again, where the vessel is hull up, or within attacking range, she is a definite shape with no deception as to her course, when painted an even tone all over, whatever the color used.

"Therefore the only course is to paint her in such a way as to deceive the attacker as to her size and course; this can only be done by extreme contrasts of color and shapes, which will so distort the vessel as to destroy her general symmetry and bulk.

"The pattern must not be too small, or the results will be negligible at a short distance, nor too big, as in the latter case large portions of the vessel will be definitely shown.

"A mean between these two extremes must be arrived at which will have the desired effect.

"The size, length, and bulk of the vessel to be painted must be considered when designing a color arrangement for her.

"These conclusions have been arrived at as a result of many years of observation of the effect of light and color on ships at sea and extensive experiments during the present war."

In transmitting this report to Admiral Sims, Admiral Greatorex repeats the general assumption laid down by Commander Wilkinson:

"The scheme is based upon the fact that:

"1. Invisibility can not be attained.

"2. The background of a ship seen through a periscope is always the sky.

"3. Deception as to course the ship is the 'raison d'être' as indecision in the submarine commander's mind must mean delay in getting in her short and possibly faulty aim.

"4. If one ship only is missed in consequence the scheme is justified."

The above was submitted to the Navy Department, August 17, 1917, by Admiral Sims with the following comment:

"Thorough investigation has indicated that it is impossible to render ships invisible on account of the varying background and as regards submarines on account of the fact that the sky, and never the sea, is the background of any object seen by a submarine.

"The problem confronting a submarine, once his prey has been sighted, resolves itself solely into estimating course and speed of the target, in order to determine how the approach to torpedo fire position should be made. The 'dazzle' system of painting is based on this one consideration and that is, of rendering the problem confronting a submarine commander more difficult, confusing him as to how his approach shall be made and thereby adding in some degree to the safety of the vessel attacked.

"It has now been definitely decided to paint all British-merchant ships in accordance with this scheme as fast as they become available in British ports. Also all armed merchant cruisers and auxiliary escort ships, will be painted as rapidly as possible.

"It has been recommended that all British destroyers used for escort work be similarly painted, and I have directed that some of the United States destroyers engaged in escort duty based on Queenstown, be painted at once in order to obtain their opinion as to the efficiency of the scheme."

The same line of argument was contained in a French Daily Bulletin of Submarine Warfare, No. 7, August 19, 1917, as follows:

"In order to render attack by the torpedo more difficult, the submarine must also be deceived as regards the speed and the angle of bearing of the ship. This can be accomplished by extreme contrasts of form and color, which destroy symmetry and the appearance of the silhouette. The deception can be rendered still more complete by the addition of smokestacks and other artificial constructions placed in such a way as to give the vessel a more pointed appearance than it really has.

"Vessels which have only one mast and one smokestack, both of which are vertical, are more difficult to attack than those which have two."

The files of the Bureau of Construction and Repair show that a scheme of "protective coloration" for ships was suggested in 1899 by Robert De Forest Brush, and the subject was revived several times during the following 10 or 12 years. The system proposed was one of countershading to decrease visibility and did not appear to offer any very promising results. It was taken up again by Mr. Jerome Brush at the opening of the war, and a number of vessels were painted under his direction to represent various modifications of the system.

Other systems for painting were proposed at the declaration of war, some by prominent artists who became interested in the subject. Five systems which appeared to possess the greatest merit were given the approval of the Shipping Board and were recognized by the Bureau of War Risk Insurance of the Treasury Department, which authorized a reduction in premiums where any one of the systems was applied. These included in addition to the Brush the Mackay, Herzog, Toch, and Warner systems.

Mr. William Andrew Mackay had first taken up the subject with the department in 1915, and his system, which was intended by the use of different color tones to decrease the visibility of portions of the ship, leaving other parts visible, with a deceptive outline, was extensively applied in the early periods of the war. The systems developed by Mr. Lewis Herzog and Dr. Maximilian Toch also tended, the first by a curvilinear combination of colors, countershading, etc., and the second by a ruptive design of broad bands of varying color and curvative, to reduce visibility. The system of Mr. Everett L. Warner, submitted in the fall of 1917, was intended to confuse an observer by using large diagonal and triangular patches, irregularly placed, depending not so much upon colors as upon the contrast of light and dark.

The Watson system, developed by the master painter of the Norfolk Navy Yard, was also based upon his observations of vessels visiting that vicinity and aimed also at confusion rather than invisibility. This scheme was tried out to some extent, as were many others, but the expression of opinion from various sources were too conflicting to permit very definite conclusions, especially on account of the frequent changes in assignment of vessels to which the experimental schemes had been applied and the lack of opportunity for making directly comparative tests.

These developments continued through 1917. The question was given much consideration by the naval consulting board and by the "Submarine Defense Association," in connection with which an elaborate series of tests were undertaken at the laboratory of the Eastman Kodak Co., through the courtesy of its president. There were frequent conferences between representatives of the Navy Department and Shipping Board, which resulted in the establishment of a fairly definite policy as regards camouflage by the end of the year. A summarization of the situation may be found in the following letter, addressed to the Secretary by the Bureau of Construction and Repair on January 18, 1918:

"For many months past the bureau has been testing various schemes of camouflage painting. During this period many suggestions have been received from artists throughout the country and many reports on observations of camouflaged vessels have been received. The bureau has also received reports from Vice Admiral Sims relative to the British 'Dazzle' system of camouflage.

"The question of camouflage painting has been recognized as one of importance, but, in view of the many conflicting ideas and the impracticability of obtaining definite reports of observations made on camouflaged vessels, decision as to the best system or systems has necessarily been delayed.

"The several systems that have been proposed may be classed broadly under two heads. One which has as its basic idea obtaining invisibility or reducing visibility, and the other with the basic idea of confusing or dazzling an observer. The Mackay system is probably the best-known type of the first, and the Warner (American) and 'Dazzle' (British) the best-known of the second.

"In the endeavor to reach a definite conclusion as to what should be done in connection with camouflage painting, the bureau recently conferred with the Emergency Fleet Corporation of the Shipping Board and certain tentative conclusions were reached, as follows:

"(a) The development of camouflage system and of experimental and research work in connection therewith to be undertaken by the Navy Department.

"(b) General charge of camouflage work, and particularly the application of camouflage as developed by the Navy Department, to be under the direction of a man to be appointed by the Shipping Board, working jointly with the Navy Department and the Shipping Board.

"(c) That the British Admiralty be requested to detail Lieut. Wilkin-on, the developer of the British 'Dazzle' system, for temporary duty in this country to assist in the organization of experimental and working forces."

"In order that the bureau may proceed with camouflage development, the department's approval of the general outline given above is requested."

The department approved the above recommendations under date of January 21, 1918, and made request for the services of Lieut. Commander Wilkinson, who arrived in this country in the latter part of February and remained throughout the month of March. Papers which he had prepared explaining his theories and systems were read by him in Washington, and later at the navy yards Norfolk, Philadelphia, Boston, and New York, before officers and others concerned. He described in detail the organization of the British office, together with the methods of design, apparatus used, etc. A camouflage section had in meantime been organized by the bureau, with Lieuts. Harold Van Buskirk, Lloyd A. Jones, and Everett L. Warner as a nucleus of its organization, and Mr. Wilkinson helped materially in starting the actual work of designing, and on the establishment of standards for the Navy's organization to meet or, if possible, excel.

It was during the latter part of February, 1918, that the first appointments of officers for carrying on this work were made, but it was not until about March 15 that the preliminary work of fitting up offices and the obtaining and building of equipment was definitely started. This date also approximately marks the initial issuance of a design by the newly formed department.

The Camouflage Section was placed in the Maintenance Division under the supervision of Capt. Beuret, although the preliminary work was supervised by Capt. Du Bose.

The organization as developed at that time is outlined in the following memorandum of March 15, and is the one maintained throughout the course of the work:

"1. The Camouflage Section of the Maintenance Division of the bureau will be under the direct charge of Naval Constructor Van Buskirk.

"2. There will be two divisions of camouflage work: one, design, under the supervision of Naval Constructor Warner, and the other research, under the supervision of Naval Constructor Jones.

"3. The headquarters of the design subsection will be in Annex A, Bureau of Construction and Repair, Navy Department, Washington, D. C. The headquarters of the research subsection will be at the research laboratory of the Eastman Kodak Co., Rochester, N. Y.

"4. The design subsection will prepare designs, transfer the designs to models, and prepare type plans from approved models. This subsection will also have charge of the force employed in copying or duplicating type plans.

"5. The research subsection will have charge of all original investigation in connection with new systems of camouflage that may be proposed, as well as special investigation of the theoretical value of the 'dazzle' system.

"6. The work of both subsections is to be under the general supervision of Naval Constructor Van Buskirk, who will give special consideration to administrative questions in connection with the camouflage organization. He will keep in the closest possible touch with the camouflage section of the Emergency Fleet Corporation and will prepare all general instructions relative to the technical side of camouflage for transmission to the Shipping Board. He will also pay particular attention to special tests that are ordered on vessels of the fleet, either naval or commercial."

In the meantime Mr. Henry C. Grover was appointed by the Shipping Board to carry on its portion of the work, and he, in turn, appointed district camoufleurs in the principal ports to supervise the application of designs.

The Army, which had started a small organization of its own under Lieut. Pavla for painting vessels which it was operating, agreed to place the work under the supervision of the Shipping Board district camoufleurs, with designs to be prepared by the Navy in conformity with the general practice that had been established, the personnel of its organization being also placed at the disposition of the bureau and the Shipping Board. Arrangements were likewise made to take care of vessels operated by the Railroad Administration, so that

finally all vessels leaving American ports were painted in accordance with designs prepared by the camouflage section.

During the early activities of the section considerable time was spent in getting the necessary data together for making the models and the outboard drawings of the vessels to be camouflaged. Arrangements were made with the Geological Survey to do all necessary photography and lithography in connection with the work.

The number of vessels to be painted grew to such proportions that a method of priority was necessary.

On May 31, 1918, it was decided to govern the camouflage painting of all vessels according to the following procedure (bureau letter No. 18030-A1, May 31, 1918, to the Chief of Naval Operations):

"(a) All troop transports should be camouflage painted, being given precedence over all other vessels in the preparation of designs.

"(b) All destroyers and all cargo and supply vessels operating in the war zone should be camouflage painted as rapidly as practicable.

"(c) Cruisers and gunboats should be camouflage painted, the preparation of these designs to be undertaken as rapidly as practicable, while giving the two preceding classes precedence.

"(d) For the present no camouflage designs should be prepared for battleships, except in special arrangement with the commander in chief for experimental work. The operation of these vessels as a fleet nullifies the effect of the designs in deceiving an observer as to the course and speed of the vessels. Tests for antirange finding camouflage are soon to be held on battleships of Force 1, and on completion of these tests the painting of battleships will be given further consideration."

In accordance with the above, a priority list was made at the beginning of each week showing the designs to be made, the outboard plans to be drawn, the models to be constructed, and the lithographs to be issued for the week following. In this way it was almost possible to keep up with the demand.

Approximately 1,256 vessels were camouflage painted after March 1, 1918. Following that date 96 American steamships were sunk, 18 of which were camouflaged. Of the 18, 11 were sunk by torpedo, 4 by collision, and the remainder were mined. This means that less than 1 per cent of the vessels painted were sunk by torpedo. It is of special interest that no vessel was sunk which had been painted at a navy yard after a special study of its particular model. All of the 11 vessels sunk by torpedo had lithograph designs prepared by the Navy and issued to the Shipping Board for application.

British statistics appear to indicate that in the first quarter of 1918 the percentage of attacks which resulted in either loss or damage was actually greater in the case of dazzled vessels, compared with those of ordinary type, whereas in the second quarter the advantage was in favor of the dazzled vessels by nearly 10 per cent, which would seem to show increasing efficiency of designs. The confusion caused by dazzle painting was very apparent in the navigation of vessels at close quarters, and to decrease the chances of collisions in entering and leaving port vessels in the transport service were repainted normally as soon as possible after the armistice.

The opinion of British submarine commanders, as quoted by Admiral Sims, in the fall of 1917 was that the chances of successfully torpedoing a vessel would be reduced 30 per cent by dazzle painting. On the other hand, an opinion volunteered by the commanding officer of the German *UB-55*, according to a report quoted by the Office of Naval Intelligence in the early fall of 1918, was to the effect that dazzle painting was of no value in the daytime, but might mislead an inexperienced officer attacking at night. It is considered beyond doubt, however, that camouflage painting was of distinct value, particularly in the case of large and fast vessels, which might be saved from disaster by the momentary confusion of the attacking submarine commanders, making it necessary to increase his own danger by a longer exposure of the periscope in taking observations. This appears to have been the opinion of some of our own submarine commanders, who had opportunities to observe through their periscopes the effect of camouflage painting on friendly vessels. It may be noted, in this connection, that the German submarine commanders appreciated the value of camouflage for their own vessels, and used various methods of decreasing visibility, both as to periscopes and of the vessel as viewed from the air.

The painting of submarines had to be governed with a view to reducing visibility from overhead when submerged and for ordinary observation on

the surface or partly submerged. The effects observed on foreign vessels, including German boats, as reported, were various, but the results of the bureau's consideration led to the adoption of black for horizontal surfaces, as viewed from above, standard gray for approximately vertical parts of the hull, and a light blue-green-gray for the conning tower, bridge, periscope, and fairwaters. The use of reactive paints and recognition marks for submarines, to prevent their being mistaken for enemy vessels, was developed with considered success.

Experiments with vessels smaller than destroyers, such as the Eagle boats, mine sweepers, and subchasers, led to the conclusion that in service a single low visibility color would be advantageous, as they were more subject to attack by gunfire than by torpedo.

In the case of vessels of the fleet it was established that dazzle painting would be objectionable for vessels of the line, for obvious reasons, while of advantage for vessels operating singly. The lighter grays used as standard prior to the war still appear to be the most effective in lessening visibility of fleet units, including destroyers, improvement having been observed in graduating from a somewhat darker shade at the water line to a very light gray at the top of the masts, to increase the difficulties of range finding. Experiments with rigging and painting, saw teeth, checkerboard designs, white bands, etc., on turrets, stacks, boat cranes, and masts appeared to show little, if any, advantage in that respect. Weather conditions in the war zone, and particularly in the North Sea, made accurate range finding difficult and low visibility of fleet units desirable. Following are the more important conclusions of the commander in chief from his letter of June 2, 1918:

"At short ranges there are innumerable objects aboard ship that can be used for range targets and the breaking up of all their lines is entirely impracticable.

"The topmast is the best range target for medium ranges, but it disappears at longer ranges and can not be used. However, there are many other objects which can be used at medium ranges, and the rigging on masts and stacks does not even prohibit the use of those targets by experienced range finders. The rigging presents a little difficulty at first, but this is soon mastered.

"The rigging on masts and stacks blends at the longer ranges and its edges appear as a fair line. Consequently, it does not interfere with range finding at the longer ranges.

"It is possible the enemy is now using stereoscopic range finders, in which case rigging is believed useless.

"The rigging on masts interferes at times with the hoisting of flag signals.

"The topmast does not materially assist range finders in securing ranges, because other targets are available.

"As a whole, the rigging on masts and smokestacks is not of sufficient value to warrant its use, and the striking of top masts is not warranted.

"The problem of camouflage for vessels operating in the fleet is different from that of vessels operating singly. It would probably be no use to give a wrong idea of the course steered by a vessel operating in formation, and certainly it would not be worth while to do so, if so doing would greatly increase a vessel's visibility. A gain in invisibility, or a confusing of the enemy's range finders, is however most desirable.

"In the fleet all vessels must be painted alike in order to make the designation of any particular vessel difficult.

"Strips of white on hull should be avoided in any form of camouflage, as being highly visible.

"In general, all the types of camouflage tested must be considered as facilitating range finding, as compared with the standard light gray, for all rendered ships visible at a greater distance than did light gray and consequently increased the range at which range observations could be made."

PARAVANES.

Probably the most secret and mysterious as well as most successful new device used by the allied navies in the war with Germany was the paravane.

Paravanes were invented and developed by Commander C. D. Hurney, Royal Navy, for the protection of vessels from moored mines. The very nature of the device and its object made its success dependent to a great extent on the maintenance of secrecy in all matters pertaining to it. Therefore throughout the war every precaution was taken by the allied navies to keep information

regarding paravanes confidential. In fact, it was a rule of the Navy Department, that the word "paravane" should not be spoken on the telephone, or written in dispatches, and all correspondence on the subject was kept in a confidential file.

The principle of a paravane installation is an individual mine sweep for each vessel. From a special fitting on the forefoot of the vessel is towed on each side a torpedo shaped body called a paravane, so designed that it stands out at a considerable distance from the side of the ship, and also travels at a definite depth. It has a large plane, slightly curved, like the wing of an aeroplane, which acts on the water like a kite on the air. This plane runs in a vertical position, and tends to pull the paravane away from the ship. This action throws a considerable strain on the towing rope which transmits the load to the ship.

The towing ropes, attached to the special fitting on the forefoot, perform two important functions. The first of these is towing the paravane. The second and more important is the sweeping operations, as the two ropes leading aft and outward from the stem form a wedge, at the apex of which is the forefoot of the vessel. This wedge formed by the towing ropes engaged the mine moorings and deflects the mine and moorings away from the ship out to the paravane.

At the point of attachment of the towing rope to the paravane is what is called the cutter head, containing jaws of steel saw-teeth knives. The mine mooring, when engaged by the towing ropes, slides into these jaws, where it is quickly severed, and the mine being buoyant comes to the surface where it can be seen and destroyed.

At the time the United States entered the war the Bureau of Construction and Repair was experimenting with a device similar to paravanes in the model basin at the Washington Navy Yard. However, as reports were received from the naval attaché at London that the British Admiralty were fitting out their naval vessels with a mine-protective gear, it was decided to request drawings from the Admiralty and permission to use them in this country.

In May, 1917, the working drawings of paravanes were received from the British Admiralty. At the same time the Navy Department was asked to agree to pay such royalties to the inventor as the Admiralty should decide to be suitable, and also to maintain strict secrecy in regard to paravanes and their purpose. These arrangements were made by cable, and further cablegrams were exchanged in regard to the proved value of paravanes, and it was not until May 28 that the Navy Department received a cablegram which contained definite information as to the established value of paravanes. It was then decided to manufacture paravanes in this country.

The drawings, when examined, showed that the device was very similar to a torpedo, and that three different types were necessary for the equipment of ships of different speeds.

Type M for merchant ships and other ships of speeds up to 16 knots.

Type B for battleships and other vessels of speeds up to 22 knots.

Type C for cruisers and other vessels of speeds up to 28 knots.

The similarity of paravanes to torpedoes, and the urgent necessity for early production, practically limited the manufacturing proposition to a concern experienced in the manufacture of torpedoes. The maintenance of secrecy prevented any published advertising, but two bids on the manufacture of paravanes were secured, and fortunately the bid of the W. E. Bliss Co., Brooklyn, N. Y., the principal torpedo manufacturers in this country, was the lower bid. As the price compared favorably, considering the price of labor and material, with the prices paid by the British Admiralty as cabled to the bureau, the contract for the manufacture of several hundred paravanes of each of the above types was awarded to this concern on September 1, 1917.

Samples of the towing rope, and also the towing sleeve were secured through the courtesy of the International Mercantile Marine, and were placed in the hands of the experts of the John A. Roebling Sons Co. for analysis. The John A. Roebling Sons Co. offered to make up two towing ropes at their own expense for test in actual service. A test of these ropes was conducted informally by the American Line steamer *New York*, this steamer having been fitted with paravanes in Liverpool shortly after striking a mine. This test showed that American wire-rope manufacturers could equal, if not improve, the wire-rope construction of the British manufacturers.

In the meantime such information as had been received from England regarding installations and underwater fittings was forwarded to the different navy yards, and the yards were requested to prepare designs for the installation of underwater fittings on the battleships and cruisers.

In October, 1917, the bureau decided to send an officer abroad to study paravanes, and accordingly Ensign G. L. Catlin, United States Naval Reserve Force, who had already been assigned to duty in connection with paravanes, was sent to England for this purpose. He reported to Admiral Sims, through whom arrangements were made with the British Admiralty to enable him to study the various phases of the British paravane organization. He spent considerable time at the paravane department at Portsmouth Dock Yard and visited several manufacturing plants, where he was able to see paravanes manufactured. He visited a paravane testing station at Portland Harbor, and also spent some time with the Grand Fleet.

This officer returned to the bureau early in January, 1918, submitting a detailed report on paravanes—their construction, testing, and operation.

The British Navy had then an organized paravane department, with a total personnel of over 300, including 70 officers, to cover the design, inspection, and testing of apparatus, together with instructions as to its use. Its records up to that time showed that 2 battleships, 5 cruisers, and 20 merchant ships had cut German mines with their paravanes. In addition to the saving of these ships themselves, the cutting of the mines had led to the discovery of mine fields hitherto unknown. The Admiralty had ordered that all British merchant ships be equipped with paravanes as soon as possible.

In view of the information received, the bureau immediately took steps to form an organization along similar lines. It was decided after a conference to establish a section called "Protective Devices" under the maintenance division of the bureau to organize and direct activities in connection with paravanes.

Briefly these were as follows:

1. Prepare and forward to each navy yard full instructions as to fitting naval vessels with paravanes according to the latest information received.
2. Issue instructions, prepare drawings, and make necessary arrangements for the Emergency Fleet Corporation to fit their vessels with paravanes.
3. Choose and arrange the assignment of a vessel of proper size, power, and speed for testing paravanes.
4. Choose a proper location for a testing station and design the layout and necessary equipment.
5. Organize a testing crew and design the necessary equipment and changes to fit up the testing vessel.
6. Compile and publish a confidential handbook on paravanes for the use of naval officers.
7. Secure and fit out a vessel suitable for a paravane instruction ship and also a mine layer to operate in connection with her.
8. Start an instruction organization and make all the necessary arrangements in regard to operation of the ship, a course of instructions, etc.
9. Organize an inspection force to carry on the inspection of paravanes in the course of manufacture, including the inspection at the works of the principal subcontractors.
10. Organize an inspection force of naval officers to inspect vessels being equipped with paravanes by the Emergency Fleet Corporation.

At this time the German submarines had not laid any mines on our coast, but as United States vessels were continually sailing into mine fields in foreign waters the bureau decided that all of these activities should be started with the least possible delay.

The first step taken was to prepare drawings and full instructions for the installation of paravane gear on naval vessels and send them out to the navy yards. The various naval vessels were listed and the proposed dockings charted so that the installation on each vessel could be anticipated by the bureau and the necessary instructions issued in advance to the navy yard at which the vessel was scheduled to dock.

The system adopted was to have each navy yard prepare drawings of the design of the underwater fittings and general arrangement for each vessel in general accordance with type plans sent out by the bureau. Blue prints of the plans for each vessel were forwarded to the bureau for examination and approval, but the navy yards were authorized to proceed with the work in advance of this approval in order to save delays.

To expedite the work the bureau arranged for the purchase in quantities of certain special fittings common to all naval vessels, allotting a certain number to each yard to be reserved for paravane gear.

A system of charted reports was started, on which the navy yards reported every two weeks the status of the paravane work on each ship. A progress card was started for each vessel and the information from the yards entered as received. This system enabled the bureau to have the latest information on each vessel in shape for quick reference.

A system of records in connection with paravanes and towing ropes was started and the policy established of controlling the assignment of paravanes direct from the bureau. No vessel was allowed to receive paravanes until the bureau was satisfied that installation of fittings was completed.

The Secretary of the Navy, having advised the Emergency Fleet Corporation to equip their vessels with paravanes, directed the bureau to furnish that corporation with information in regard to the organization of the work. Several conferences were held with the corporation's officials, and detail descriptions and all drawings necessary were supplied.

In common with the British practice, the device as used for merchant vessels was termed "Otter gear," and in naval work was referred to by the abbreviation "PV."

As previously stated, all information on the subject of paravanes had been kept confidential, even among naval officers, and as a matter of fact very few naval officers had ever heard the name of the device up to this time. As it was considered necessary that each vessel being fitted with paravanes should have a book containing full information as to theory, construction, maintenance, and operation of paravanes the bureau proceeded to compile and publish a confidential handbook called the PV Handbook for the use of naval officers. This book was completed on March 25, 1918, and a copy was forwarded to the commanding officer of each battleship, cruiser, and transport, the bureau requiring a signed receipt for it. At the same time, another handbook, called the Otter Gear Handbook, was compiled, containing information necessary for merchant ship captains, and copies of this book were furnished to the Emergency Fleet Corporation for distribution to ships.

The formation of the plans for testing paravanes was hastened by the receipt of a cablegram from the British Admiralty in January, requesting the bureau to assign an officer to inspect the service tests of 400 Otters being shipped to this country for the equipment of British ships in American ports. In view of this request the bureau decided to not only inspect but to actually carry on the testing of these British Otters, in order to have a testing organization in full operation in advance of the production of American paravanes.

Although torpedo boats were used by the British Navy for testing vessels, it was believed that some fast yacht might do the work and the U. S. S. *Winchester*, a converted yacht of 30 knots speed was chosen. She was ordered at once to Norfolk navy yard to be fitted with the gear for testing. At the same time a location for a testing station was found at Yorktown, Va., where the necessary deep water, available dock, and desirable secrecy, was combined. A layout for a railroad, derricks, shop, and other equipment on the dock, was prepared, and plans and specifications were furnished to the Bureau of Yards and Docks with a request that the work be rushed.

As it was necessary to have an instruction ship to train merchant ship captains, as well as naval officers, the bureau suggested to the Emergency Fleet Corporation that it furnish a vessel for this duty, the Navy to operate the vessel and direct the course of instruction. The Fleet Corporation accepted this suggestion, and a search was made for a proper vessel, to be, if possible, some vessel not engaged in overseas transportation. The Fleet Corporation finally suggested the steamer *Berkshire*, of the Merchants & Miners Line, and the bureau's representative was asked to inspect her at Providence. After inspection, it was decided that the *Berkshire* should be fitted up for this duty, and the Emergency Fleet Corporation promptly commandeered the ship and started at once to install the gear necessary to make her a Paravane Instruction Ship. Three different devices used for towing paravanes were installed under the advice of the bureau.

The *Berkshire* being ready for operation, a base for her was established at City Island, near Pelham Bay Camp. This location made her within easy reach of New York City, and also gave her a deep water course in which to operate her paravane.

The *Berkshire* was completely fitted by the 1st of May, 1918. A difficult situation arose in regard to the selection of a commanding officer for the *Berkshire* as no American naval officer at that time, outside of the bureau's representative who could not be spared had had sufficient experience to qualify him to instruct in the operation of paravanes. However, one American ship, the *New York*, of the American Line, had been fitted with paravanes in England some 6 months before and it was therefore arranged to call her chief officer, Lieut. H. R. Lewis, R. N. R., into active service, temporarily, for this duty. After about a month, Lieut. C. C. Jones qualified under his instruction and continued in command of the instruction ship throughout the war.

A lecture room was fitted on the *Berkshire* and a moving picture machine installed for the purpose of exhibiting three confidential films showing the manufacture, testing, and operation of paravanes, these films having been secured by the Bureau of Construction and Repair from Vickers Limited through the naval attaché at London.

The daily course of instruction consisted of a lecture on paravanes, exhibition of moving picture films, and then, the class proceeding to the deck, the operation of the different types of towing devices was conducted and explained. Finally the paravanes were launched and the vessel by that time would be approaching the two mines previously laid by the *Bivalve*, a small mine layer, cutting them with her paravanes. The vessel was then swung around heading for her base, the paravanes were picked up, and the opportunity given to any of the class to see the operation of any part of the gear which had not been made entirely clear to him.

In connection with the operation of the *Berkshire*, an office called the Otter Gear Instruction Office, was established in the office of the superintending constructor, New York City. To this office, all officers and men ordered to take the instruction of course were required to report for identification and visé of orders, before they were allowed to go aboard the *Berkshire*. Each man was also required to sign a register on board the *Berkshire*.

As the report of the bureau's representative showed that the greatest care must be taken in the manufacture and inspection of paravanes, an inspection force was organized with headquarters at the office of the superintending constructor, at New York. Several inspectors were assigned to the E. W. Bliss Works, and several were sent to the factory of the principal subcontractor, the Bossert Corporation, Utica, N. Y. A great deal of credit should be given to this inspection force, for it was mainly through their efforts that the production was not delayed by lack of attention to priority orders, and at the same time their careful inspection resulted in the first paravanes of each type manufactured in this country passing service tests on the first run.

The fitting of the Emergency Fleet Corporation vessels with Otter gear was started under the advice of, and carried on under the supervision of, the Navy Department. The bureau, therefore, organized an inspection force to inspect each Otter gear installation on Emergency Fleet Corporation vessels during construction, and, after completion, to be sure that the gear was properly installed and in working order.

The chief inspector was established in the office of the superintending constructor, New York City, and inspectors reporting to him were stationed at Norfolk, Philadelphia, and Cleveland. A detailed report on each inspection was forwarded direct to the bureau.

All of the activities in connection with paravanes were well under way in the spring of 1918. The testing ship *Winchester* ran her first service test on March 1, 1918.

The first shipment of American paravanes was made from the E. W. Bliss Works, on April 13, 1918. Previous to that time the testing ship was engaged in testing British paravanes and arrangements were made to borrow British paravanes. By this arrangement the bureau was able to furnish paravanes to any vessel as soon as her other fittings were completed by a navy yard.

The first naval vessel completely fitted out with paravane gear was the battleship *Texas* on January 30, 1918.

On September 7, 1918, an event occurred which justified at once the entire expense incurred by the Navy Department and Emergency Fleet Corporation in connection with paravanes. The U. S. S. *South Carolina*, proceeding from Yorktown, Va., to New York, cut a German mine with her starboard paravane about 6 miles off the New Jersey coast. The mine came to the surface off the starboard quarter of this vessel and was seen not only by the officers on the

U. S. S. *South Carolina* but by the officers on watch on the U. S. S. *New Hampshire*. The latter vessel, following the *South Carolina* in column, sheered out to avoid the mine on the surface.

The records of the British service, up to November, 1918, are understood to show the following definite reports of 72 cases of mines cut by paravanes: Thirty-seven cut by light cruisers, 3 cut by armed merchant cruisers, 1 cut by a mine sweeper, 1 cut by a cruiser, 1 cut by a battle cruiser, 1 cut by a battleship, and 28 cut by merchant ships.

The above were in addition to reports from 12 naval vessels and 12 merchant ships which were not considered as containing absolutely definite evidence.

After the armistice was signed, as it was believed that the use of paravanes would gradually decrease and probably be discontinued in the course of a year, some of the contracts for production of paravanes were canceled, and others were reduced. The testing of new paravanes was continued, and in December the testing ship *Winchester* was sent to City Island, N. Y., in order to be near the Bliss Co.'s works.

The instruction ship *Berkshire* made her last run in December, 1918, but the lectures and other instruction on board were continued until February 3, 1919.

A statistical summary covering the manufacture and production of paravanes for the United States Government, inspection, test guns, etc., is attached.

STATISTICS.

Manufacturing and production.—The total number of each type of paravanes manufactured by the Bliss Co., excluding cancellations, were as follows: Type M, 1,400; type B, 296; type C, 300; total, 1,996.

The total number of each type purchased from Vickers (Ltd.) was as follows: Type M, 500; type B, 110; total, 610.

In addition to the above, 27 type B paravanes purchased from Vickers were lost on a vessel sunk by torpedoes.

Testing.—The number of test runs made by the testing ship *Winchester* up to April 15, 1919, was 1,506.

Instruction.—The number of runs made by the instruction ship *Berkshire* was 103; number of mines cut, 168; naval personnel instructed, 473; merchant ship officers instructed, 204; British naval officers instructed, 13; miscellaneous, 172; total, 862.

Inspection of emergency fleet vessels.—Number of vessels inspected, 229; date of first inspection, May 11, 1918; date of last inspection, February 28, 1919.

NAVY GAS MASKS.

For some time prior to the United States becoming involved in the war the Bureau of Construction and Repair had been investigating the subject of gas masks for naval use. Very little information could be obtained as to what had been done abroad by either the Navy or War Departments, but samples and reports were obtained early in 1917 which furnished material for study and tests.

As war became imminent, the work of development, which involved not only the type of mask but also the manufacturing facilities to produce it, was pushed to the utmost, with the result that on May 7 contracts were placed for 50,000 masks, this number being subsequently increased to 75,000. As related in detail hereafter, experimental and development work was continued during the succeeding year, with the result that in June, 1918, contracts were placed for 220,000 masks of an improved type. When the armistice arrived, 95,000 of this number had been delivered, and the remainder were canceled.

Before proceeding with the story of our own development of the mask, it is interesting to quote the report of a German observer made immediately after the battle of Jutland and showing the important part played by these masks in a modern naval engagement:

"Only two days before leaving for action a large number of the vessels that by chance were those that took the most active part in the battle; that is, the battle cruisers, and the vessels of the third squadron, received the gas masks with the supplies of potash, more than an abundant supply for the entire crew (on the *Scydlitz* 1,500 masks for 1,200 men). The masks were of the same type as that used by the Army against asphyxiating gas. Every man had a mask either on his head or else hung around his neck. All of the officers

emphasized to me the fact, that according to their experience, the masks were an absolute necessity and that they not only saved an extraordinary number of human lives but made possible work and service in the compartments which otherwise would have to be deserted unconditionally. The gas from the bombs, mines, and torpedoes penetrated the ventilating system, speaking tubes, etc., in places that are very distant from the disaster and to an extent never thought possible. In many cases a great part of the personnel of the turrets struck could escape, thanks to the masks, remaining at their posts long enough to carry away those seriously wounded; in one instance the personnel of the main engine room into which asphyxiating gases had penetrated was able to stay at its post until the room was ventilated."

In developing our own mask for naval use, three types used and developed by the European belligerents were carefully examined and considered. The French type, shaped like the mask of a baseball catcher, was rejected as not reliably gastight, and because it imposed rebreathing exhaled air to some extent. Also, in order to be kept ready for use, it had to be frequently and carefully dipped in rather complicated solutions, and partially dried. The English mask, first adopted by the Army, appeared entirely efficient and reliable, but was considered too clumsy for naval use, involving a large knapsack and a chemical container suspended on the chest, with flexible hose connections to the face mask. The German mask was light, compact, and carried entirely on the head, but lacked the mouthpiece, nose clips, and exhaling features of the English mask, being considered inferior in those respects where active work and an adequate supply of air were required.

A gas mask known as the Mark I, Navy type gas mask, was designed by Lieut. Commander A. H. Marks, C. C., U. S. N. R. F. in cooperation with the Bureau of Mines experiment station, and also with the assistance of the research laboratories of the Goodrich and U. S. Rubber Cos., which undertook contracts, and which found considerable difficulty in developing quickly all the details of construction, the production of the chemical filler, etc.

The Mark I mask was a composite of the German and English types referred to above. In appearance, weight, and convenience, it resembled the German mask, being self-contained on the head, with no connecting tubes or straps, but functionally and chemically it was the English mask, with capacity of from two and one-half to three hours total exposure to effective gas concentrations.

This mask was submitted to the fleet for criticism before being adopted, was pronounced satisfactory, and production proceeded with. The Bureau of Medicine and Surgery instructed classes in gas defense at the Naval Medical School, and tests were conducted by the Bureau of Ordnance at the naval proving grounds in conjunction with the Bureau of Mines. By December, 1917, practically every large ship of the Atlantic Fleet had on board one or two officers specially trained to give instruction in gas defense. In the meantime a demand came from the fleet and from observers abroad for a mask having longer life, for one interfering still less with the freedom of the wearer, and for doing away with the mouthpiece. This resulted in a new design, known as the Mark II, head canister type, which got into production in the summer of 1918 and deliveries of which were being made when the armistice was signed.

On May 31, 1918, the Secretary of the Navy appointed a special board, of which Capt. J. T. Tompkins was senior member, and which included representatives of the Bureaus of Ordnance, Construction and Repair, and Medicine and Surgery, for the purpose of considering and making recommendations regarding the use of gas in naval warfare. The board was directed to submit an estimate of the situation based upon available information from abroad and upon the results of research and experimental work carried out under the supervision of the bureaus of the Navy Department and Bureau of Mines. Recommendations were called for both as to offensive and defensive measures to be employed. Under the head of "Development of gas defense in the United States Navy" the board reported:

"With good masks and good gas discipline the bad effects of the use of gas by the enemy may be greatly reduced. With the new Navy head canister mask and good training there should be a comparatively small decrease in the efficiency of the men.

"A good mask should have the following characteristics:

"(a) Protection of the lungs against all gases with the possible exception of carbon monoxide. Protection should be furnished against high concentrations for about 20 minutes and against low concentrations for two hours.

- “(b) Protection of eyes against all lachrymators.
- “(c) Filtration to remove sneeze gas smoke.
- “(d) Low resistance to the passage of air.
- “(e) Slight interference with the movements of the body.
- “(f) Slight interference with vision. Nondimming eye pieces.
- “(g) Slight interference with talking.
- “(h) Rugged construction.

“The Bureau of Construction and Repair has provided about 75,000 gas masks for the fleet of a type developed at the outbreak of the war. While at the time this was the most highly developed type of gas mask in use by any belligerent, it does not meet all of the essential requirements mentioned above.

“A new type of gas mask has since been developed under the Bureau of Construction and Repair, which meets the above requirements much more satisfactorily than the old type. Bids for 220,000 of these masks will be opened on June 25, 1918, this quantity representing a mask for every person afloat, plus 10 per cent of spares. This mask is of the head canister type. This type was adopted after consultation with the fleet and after sample during various stages of the development of the mask had been submitted by a representative of the Bureau of Construction and Repair to the commander in chief for criticism and approval.”

Included in the recommendations of the board were the following “defensive measures”:

“To provide gas masks, with necessary spares for all the personnel of vessels of the battleship, cruiser, and destroyer forces, the masks to be so designed as to afford protection to personnel against noxious gases for as long a period as possible without change of mask or chemicals, and so designed as to interfere as little as possible with the freedom of movement required for the proper performance of duty. Stowage for gas masks to be so arranged as to make them readily available to personnel at their battle stations.”

“The establishment of a complete system of training of ships personnel in gas defensive measures and gas discipline.”

“To continue experimental work in the development of new gases and methods of protection against gases used by the enemy.”

“That, in view of the fact that the Bureau of Construction and Repair and Ordnance and Medicine and Surgery are all charged with certain duties relating to gas warfare, and in view of the vital importance of this subject, an officer of rank in the Office of Operations be detailed in charge of this work, who will, under the Chief of Naval Operations, coordinate the work of the various bureaus concerned.”

“It is considered most important that crews be thoroughly trained in defense against gas. Army reports state that in gas warfare on shore, by far the greater number of casualties have been proved to be due to inefficient training and slackness of discipline. When masks are worn, the fighting efficiency of men will be considerably reduced, and in order to reduce this loss of efficiency to a minimum, they must be trained to wear masks for a considerable period and to carry out all their duties while so protected.”

“Training in gas defense to be divided into three categories, viz:

- “(a) Training instructors and specialists.
- “(b) Training ships' officers and petty officers.
- “(c) Training ships' crews.”

The report of the board was approved by the Secretary on July 1, 1918, and Capt. Tompkins was detailed “to coordinate the work of the various bureaus concerned in preparing the naval service to successfully counter the use of gas as an offensive weapon in naval warfare.”

The Mark II mask, with its standard canister containing absorbents calculated to give protection for about six hours against concentrations of lethal gases such as ordinarily met with in land warfare, consists briefly of a closely fitting mask and rubberized cloth helmet. To this cloth helmet a light aluminum headpiece is attached by means of elastic straps. The aluminum headpiece forms a saddle, to which the canister containing the chemical absorbents is strapped. A Y-shaped coupling is used for connecting the end of the canister with rubber tubes, through which the air passes to the face piece. The filter pads consist of special felt layers separated by corrugated wire screen and are secured to each side of the headpiece. A cross tube of rubber connects the nozzle and filter pads to the intake end of the canister, so that air passing to the wearer's lungs must first pass through the filters, where the smoke is removed, thence through the chemical in the canister, where the poisonous

elements of the gases are absorbed. The exhaled breath of the wearer is relieved through a rubber flutter valve which projects vertically above the eye-pieces. In order to prevent the exhaled breath from passing through the canister, which would be injurious to the chemicals, small check valves are fitted at the lower ends of the rubber tubes. As a still further protection, a disk check valve is fitted in the nozzle of the canister at the intake end. The incoming air is directed from the lower ends of the tubes so as to pass across the inside of the lenses in order to prevent dimming.

In the case of the true war gases the poisonous elements are absorbed by certain chemicals contained in the canister of the outfit, the water drawing the outside air through this canister before it reaches his lungs. In the case of smoke gases the particles are actually strapped to the sides of the canister. The chemicals in the canister and the smoke pads afford protection against all known forms of war gases. The standard war equipment consists of the gray canister and the side filter pads. For protection against carbon monoxide, which is not considered a war gas, the gray canister of the regular outfit is removed and replaced by a canister containing special chemicals for absorbing carbon monoxide. The carbon monoxide canister is painted black, to be used only in cases of fire fighting or where carbon monoxide alone is suspected or known to be present.

BUREAU ORGANIZATION.

To accomplish the work which has been briefly described, there was enormous expansion of the Bureau of Construction and Repair. The total force—officers, clerks, and technical employees—numbered 143 on July 1, 1916; 233 on July 1, 1917, three months after we entered the war; and 556 on July 1, 1918. A maximum of 687 was reached on November 15, 1918. This great expansion, which was made without any serious changes in organization, the organization which had been developed in peace being found sound under the strain of war conditions. The expansion did require some subdivision of existing divisions into manageable sections. For instance, under peace conditions, Design and Production were handled by the same subdivision of the bureau. It was found desirable to separate production and make a new division of it during a part of the war. Production was one of the largest divisions of the bureau. With the expansion of force the administration of the bureau, which had been carried on in peace without a titular organization for it, was placed in a distinct division. After the above changes the eight divisions of the bureau were made one.

Design, Production, Maintenance, Administration, Contracts, Shore Establishments, Supply, Aircraft.

The duties of these divisions, which continue in force, may be briefly outlined as follows:

Design Division.—This division has charge of all design work, including large alterations of completed vessels, research on subjects useful for design work, changes on ships under construction, and the model basin. The design division also follows up the construction from a design point of view.

Production Division.—The functions of this division consists principally in analyzing and anticipating the requirements for materials under the cognizance of the bureau; uncovering new sources of supply when the normal sources are inadequate to meet the demands; following up production by means of charts and reports from the field, and assisting contractors in becoming familiar with Government methods. During the war, this division was also responsible for presenting to the various committees and divisions of the War Industries Board, the necessary data for obtaining priority on materials used by, or for the bureau, the allocation of steel or other materials when the supply of such materials was limited, etc.

Maintenance Division.—The division handles all questions having to do with completed ships.

Administration Division.—This division is a general-service division and has to do with administration in bureau affairs, as distinct from the operations. It deals mainly with bureau personnel and organization. The personnel of other divisions is under the administration division for administrative purposes.

Contracts Division.—This division has charge of questions which arise in connection with the preparation of contracts for new vessels and important contracts generally in which the bureau is involved, and questions, other than technical, arising during their execution. It also handles for the bureau all

matters arising in connection with the work of the Compensation Board (except those involving the approval of prices and orders), and the general financial questions involved in contracts and payments. During the war and the year following, this division also handled a great number of incidental matters arising in connection with payments, penalties, delays, and changes in contracts; plant rentals, supplementary agreements, etc.; becoming, in effect the bureau's liaison with the Compensation Board and with the office of the Solicitor for the Navy Department.

Shore Establishment Division.—This division deals with questions of plant and organization, mechanical equipment, personnel, costs, and manufacturing processes at shore stations.

Supply Division.—This division deals with requisitions, contracts, and specifications for, and inspection of materials.

Aircraft Division.—This division deals with all matters under the bureau connected with aircraft, including seaplanes, airships, captive balloons, etc.

The volume of work done by the bureau is perhaps best measured by the expenditures for which the chief of the bureau is held responsible, whether by law or by Executive order. The following approximate figures indicate the enormous increase which must fall on each and every part of the administrative organization of the Navy Department in time of war:

	Average annual expenditure by Bureau of Construction and Repair.	
	1912-1916	1918-19
From appropriation "Construction and Repair".....	\$9,000,000	\$71,000,000
From appropriation "Increase of the Navy".....	9,000,000	222,000,000
From miscellaneous appropriations.....		31,000,000
Total.....	18,000,000	327,000,000

From these figures it can be seen that the expenditures increased eighteen-fold during the war years in comparison with the average of four prewar years, while the number of officers and employees in the bureau increased less than five times. These figures show better than words could tell the always faithful and efficient and at times brilliant services rendered by the entire staff of the bureau, without which the results herein briefly recounted would not have been attained.

Secretary DANIELS. It may not be known, even to the members of this committee, that before the armistice the United States Navy was operating 834 vessels and had a force of 175,000 officers and men engaged either in European waters or in trans-Atlantic war service plying the war zone.

The "Summary of Activities of United States Naval Forces Operating in European Waters," compiled and issued from Admiral Sims's headquarters in London, gives a total of 373 vessels actually present on November 11, 1918, with 27 other ships assigned to that service, and states that "at the cessation of hostilities there were approximately 81,000 officers and men serving in Europe." This includes more vessels and a larger personnel than was in the entire Regular Navy at the beginning of the war, when there were 362 vessels on the Navy list, of which 20 were old craft listed as "unserviceable for war purposes," and 67,043 officers and men.

But the Sims figures include only vessels and men directly attached to the European force. They do not take into account the cruiser and transport force, which before the armistice comprised 24 cruisers and 59 troopships, manned by 3,000 officers and 42,000 men, that were

constantly plying between America and Europe transporting troops, and which eventually numbered 142 vessels, transporting to Europe 911,047 men and bringing back 1,700,000, handling a total troop movement of over two and a half million men.

Nor do these tables mention the vast fleet of the naval overseas transport force, which before the end of hostilities manned and operated 378 vessels of 2,900,000 dead-weight tons, requiring a force of 4,672 officers and 29,179 men, and which carried to Europe 6,000,000 tons of supplies, munitions, fuel, and materials.

Both these fleets were as truly engaged in European war service as were the forces under his direction, and all sailed the "war zone" to and from European ports, being as truly engaged in serving the allied cause and contributing as directly to the result as did the destroyers and other craft under his command.

If we add to these the 373 vessels directly in the European force, as should be done to denote America's contribution in ships to the allied effort, it will be seen that we had engaged in European war service before the end of hostilities 834 vessels manned and operated by the Navy and 158,851 officers and men. If we add to these the 15,000 to 20,000 men of our armed guard on merchant vessels, all of whom served in the war zone and were engaged in antisubmarine work as truly as were the men on our destroyers, the total number engaged was approximately 175,000.

Admiral Sims in the summary issued by his headquarters states that the number of officers and men serving in Europe represented about 15 per cent of the total naval personnel. As a matter of fact, the total number engaged in war service to and from Europe, as well as in Europe, represents about one-third of the total personnel. When it is recalled that nearly all the 200,000 men who were enlisted in the Navy in the eight months previous to the armistice were trained or being trained to man the hundreds of destroyers and other antisubmarine craft being built and the large number of vessels under construction by the Shipping Board, practically all of which were destined for European or trans-Atlantic service and were to be manned by the Navy, it will be realized that more than half of the entire personnel were being prepared for service in Europe or on transports and cargo ships which were to carry troops and supplies to Europe through the danger zone. We had increased our flying corps to nearly 50,000, of which over 18,000 were serving in Europe, and thousands more men and hundreds of additional machines would have been sent over in the next few months.

If the war had lasted a year longer—as practically all eminent authorities thought it would—and I would like to add, when Sir Eric Geddes and Admiral Duff were in Washington early in October, 1918, they told us that the sinkings by the submarines would be greater in the next six months than they had ever been; and no military man with whom I ever talked or from whom I received any communication, ever suggested that the war would be over before August, 1919. If the war had lasted a year longer, as practically all eminent authorities thought it would, three-fourths of our entire naval personnel, a force of 375,000 or 400,000 would have been engaged in European service or in operating vessels carrying troops or supplies to our Army or the Allies.

I ask that there be placed in the record the following tables, from the "Summary of activities of United States naval forces operating in European waters," which summary was compiled by and issued from Admiral Sims's headquarters in London:

American naval vessels actually present in European waters upon the cessation of hostilities, grouped by bases.

	Total.
Queenstown—2 tenders, 24 destroyers, 30 chasers, 8 tugs-----	59
Berehaven—3 battleships, 1 tender, 7 submarines, 1 tug, 1 oiler-----	13
Brest—1 gunboat, 16 yachts, 3 tenders, 38 destroyers, 9 tugs, 1 station ship, 4 steam barges, 4 barges, 9 mine sweepers-----	85
Cardiff—1 tender, 1 refrigerator hulk, 55 colliers-----	57
Gibraltar—2 cruisers, 4 gunboats, 5 coast guard cutters, 9 yachts, 1 tender, 6 destroyers, 18 chasers-----	45
Genoa—2 tugs-----	2
Azores—2 yachts, 1 tender, 1 oiler, 2 mine sweepers, 5 submarines, 1 tug-----	12
Grand Fleet—5 battleships-----	5
Murmansk—1 cruiser (also Russian destroyers)-----	11
Mine Force—1 tender, 10 mine layers, 2 mine sweepers-----	13
Southampton—4 transports-----	4
Plymouth—1 tender, 2 destroyers, 36 chasers-----	39
Corfu—1 tender, 36 chasers-----	37
Liverpool—1 oiler-----	1
Grand total naval vessels in European waters-----	373

Miles steamed by United States naval vessels in war zone.

These figures of average miles steamed per month by United States forces in European waters are very approximate and all a minimum:

	Miles.
Destroyers-----	270,000
Miscellaneous patrol craft-----	120,000
Mine sweepers-----	10,000
Mine layers-----	10,000
Battleships and submarines-----	90,000
Submarine chasers-----	121,000
Total-----	628,000

III. PERSONNEL.

The following table shows the naval personnel, actually in European war at the beginning of each quarter, since April 26, 1917, and the quarterly increases:

Date.	Total officers serving.	Total men serving.
Apr. 6, 1917.....	5	.....
July 1, 1917.....	214	1,840
Oct. 1, 1917.....	629	8,544
Jan. 1, 1918.....	1,482	22,724
Apr. 1, 1918.....	2,072	31,080
July 1, 1918.....	3,135	47,686
Oct. 1, 1918.....	4,969	75,742

At the cessation of hostilities there were approximately 81,000 officers and men serving in Europe. This represents about 15 per cent of the total naval personnel, which is 31,186 officers and 506,996 men.

BRINGING BACK THE SOLDIERS.

When the armistice was signed the pressing duty of America was to bring back the soldiers who were as eager to come home as their kin and friends were to welcome them. It was a giant task to which the War and Navy Departments immediately addressed themselves with zeal and the employment of every craft that could be secured. In taking the troops across we had been able to secure ships of other nations, principally those of Great Britain, which under contract with the War Department carried something like a million American soldiers to France. These British ships were not available to us as transports until the latter part of 1917 and not in force until after the fateful March drive of 1918. Naturally few were available for bringing back troops to the United States, for they were needed to take home the Canadian and other British forces who were anxious to return home. It was, therefore, necessary for all American ships to be pressed into service, as well as to lease certain German ships manned by American Navy men. But these were not sufficient, and I ordered older battleships and cruisers to become transports until such time as all the American soldiers, keen to come home, had been furnished transportation. It is true that the commander in chief protested against such use of our ships, but I told him the Navy had but one mission, which was to serve America, and that, having served it in the war, we would be adding to the naval contribution by giving voyage home to our returning soldiers.

It had been feared that battleships and cruisers would not afford comfortable quarters for the troops, but the Navy Department received letters and resolutions of thanks, expressing from officers and men of the Army their happiness in having been permitted to make the return trip home as guests of the Navy. They had served gloriously in the Army, and were happy to have a taste of Navy life and Navy accommodations before returning to civilian pursuits. And the Navy was happy in the privilege of playing host across the ocean to many of the soldiers whose valor had turned the tide and won the victory. The country will not soon forget—the soldiers will remember always—this service not required or expected of the Navy, but one which was as acceptable as it was unique in naval usefulness.

Mr. Chairman, I referred a few days ago to the great work done by the Navy when the German interned ships were turned over to the Navy, and which the German officers thought they had destroyed, or so nearly destroyed as to make it impossible for them to be gotten in commission so as to render any service during the war. That was a great contribution of the Bureau of Steam Engineering, and the officers and men who conceived and carried out that work hastened the winning of the war by enabling us to carry soldiers over rapidly, and before our allies allocated ships to us for that purpose.

WORK OF THE BUREAU OF STEAM ENGINEERING.

The outstanding features of the work of preparation of the Bureau of Steam Engineering were:

Within two weeks after war was declared in August, 1914, the bureau requested authority of the Secretary of the Navy to send abroad an officer expert in radiotelegraphy to acquire the fullest in-

formation possible regarding the methods of wireless communication used by the nations engaged in war. This recommendation was approved and Lieut. Hooper sailed the latter part of August, 1914, and remained abroad until January, 1915, during which time he acquired information of great value to the Navy Department.

Following the outline of preparedness submitted by the General Board March 13, 1915—before we entered the war, approved by the department May 28, 1915, nearly two years before we entered the war—investigations were promptly made of the engineering resources of the country in regard to building and repairing machinery and the supply of it necessary for active operation in time of war. These investigations were continued during 1915 and 1916 and up to the time of the declaration of war in 1917, and quarterly reports rendered to the Chief of Naval Operations.

Full advantage was taken of the experience acquired with the electric drive in the collier *Jupiter* to equip also the battleships *California* and *Tennessee*, authorized by the act of March 3, 1913, with the same kind of propelling machinery, and to take similar action in the case of the battleships and battle cruisers authorized by the act of August 29, 1916.

When war was declared extensive preparations were made toward the rapid construction of the destroyers authorized by the acts of August 29, 1916, March 3, 1917, and October 6, 1917, the latter requiring the creation of entirely new facilities for the construction of the 150 destroyers authorized. This large building program necessitated the building of new forging plants, extension of existing ones, and the building of new shops for the construction of turbines, boilers, pumps, and much other of the machinery equipment.

One of the most important activities carried out under the direction of this bureau was the repair of the German ships, whose machinery had been rendered unserviceable prior to February 1, 1917. The necessity for having these ships available for service in transporting troops to France was of such paramount importance as to justify the adoption of unusual methods to make the machinery serviceable. Accordingly, resort was had to the use of electric welding on a scale which hitherto had not been dreamed of and with such success as to win the admiration of the mechanical world. Without these ships it would have been impossible for us to have transported our Army to France, which fact makes this accomplishment preeminent in war work.

In regard to submarines whose machinery had been criticised by Admiral Grant, contracts were let in 1915 and 1916 for the renewal of the engines of two of the E's and three of the F's; in May, 1917, for the renewal of the engines of eight of the K's; in October, 1917, for the renewal of five of the C's and three of the D's, and in January, 1918, for that of three of the H's, which would complete the renewal of all engines of the two-cycle type. And I call your attention to the fact that most of these submarines—I think all of them—were built long before I became Secretary of the Navy.

In February, 1917, designs were prepared for a submarine chaser and contract for the machinery of 150 let March 20, 1917, which contract was later extended to the construction of machinery for 462 vessels of this type.

When we first decided to construct the submarine chasers they were the largest ships that could be built in America, and we had already contracted with every shipyard and every shipbuilder in America for every type of ship that they could build, and we built these submarine chasers in yards that could not be used for building destroyers or other craft. We thought that they could be coast defense ships, and we built them mainly for that; but they proved to be so much better than we dreamed that the French and the Italians urged us to let them have some of them, which we did, and their service in the war was one of the conspicuous new and outstanding features. We constructed a new type of ship, and these submarine chasers rendered great service not only in France but in the Adriatic, and one squadron of them sunk two submarines. It is true that they did not get credit for it by the British Admiralty, but I shall take steps in that matter.

The CHAIRMAN. That was in Italy?

Secretary DANIELS. In the Adriatic. I shall take steps to see that American naval officers review every action of an American ship with a submarine and that the final court that passes upon them will be an American court and not the British Admiralty.

Submarine detection, which was destined to play an important part during the war, was taken up in February, 1917; and I beg to call attention to the fact that this was before the war—at the time of the break in relations with Germany—before Congress had indicated to the executive departments that it was going to declare war. Submarine detection, which was destined to play an important part during the war, was taken up in February, 1917, and investigations of a particular system undertaken by a group of scientists from leading universities of the country. This was followed by other investigations in March, and later by cooperation between three of the principal companies who had been prominently identified with similar work and whose operations were carried out at Nahant, Mass., and New London, Conn., under the direction of a special board. The instruments developed at these places proved highly effective in operations against submarines.

The construction of 150 Eagles, contract for which was awarded the Ford Motor Car Co., was initiated in December, 1917, and required the creation of new facilities for accomplishing. It required also that the machinery should be of a special type suited for vessels engaged solely in submarine detection, which requirement was successfully met.

Under the terms of the act of March 4, 1917, which authorized the construction of mine sweepers, the services of firms not engaged in the construction of battleships, destroyers, and submarines were enlisted and orders placed for 36 from June to September, 1917, and later extended to 54 of these vessels. Similar action was taken in the construction of seagoing tugs and harbor tugs, the facilities of navy yards and Lake establishments being utilized for the building of the former and of wooden shipbuilders for the latter.

The important part played by wireless telegraphy in keeping up communication with the fleet and with our forces abroad made necessary the erection of a high-power station at Annapolis and another at El Cayey, P. R., and later of a still larger station for the French

Government at Bordeaux, the design of which was prepared and the material purchased and supplied by the Navy Department. Later developments in Siberia required the equipment of a station at Vladivostok in order to keep in touch with our troops in that region. This equipment had to be very hurriedly assembled from stations in the Pacific, transported, and installed in an abandoned Russian station on Russian Island, near Vladivostok.

In cooperation with the War Department and the Bureau of Mines of the Interior Department, there was successfully completed at Fort Worth, Tex., two experimental plants for the production of helium, which was considered of great importance for use in dirigibles and observation balloons instead of hydrogen. At the time of the armistice sufficient helium had been produced to enable a quantity to be prepared for shipment abroad, and the experimental equipment was so successful that plans were developed for the construction of a plant for the production of this gas in quantity.

Important work was done in the equipment of air stations at home and abroad, in development of the geared Liberty engine, and the supply of engines for aircraft and training planes generally.

The task of maintaining in efficient condition the machinery of such an enormous fleet was one of great magnitude. The facilities of navy yards were extended to the limit and use made of every private establishment that was equipped to handle repair work. New repair ships were equipped and sent abroad, where they rendered excellent service in maintaining the machinery of patrol and convoy vessels. The work done by the two repair ships stationed at Queenstown was of such high order as to elicit the highest praise from Admiral Sir Lewis Bayly, R. N., who was in command of operations from that base. This officer stated that without these repair ships the work could never have been done. Besides the repair ships, five major bases were established abroad and several minor ones.

I submit this in regard to the work of the Bureau of Steam Engineering, Mr. Chairman.

(The matter last referred to is here printed in full in the record, as follows:)

PREPARATIONS MADE BY THE BUREAU OF STEAM ENGINEERING TO SECURE A STATE OF PREPAREDNESS AND GENERAL OPERATIONS OF THE BUREAU.

In beginning it is considered advisable to state briefly the general character of the work that comes under the cognizance of the Bureau of Steam Engineering in order that a comprehensive idea may be formed of the magnitude of its work during the war and the responsibility thus attached to it.

Its field is chiefly dynamical engineering. It supplies boilers and engines to all classes of ships, and also the numerous auxiliaries and accessories necessary for their operation and for their maintenance in efficient condition, as well as for much of the equipment installed to add to the comfort and the health of the crew.

It provides means for an abundant supply of fresh water for the crew, which in a battleship numbers nearly 1,500 men, and also facilities for making ice and for keeping refrigerating rooms properly cooled. It also provides a supply of salt water for sanitary purposes.

It provides electric current for interior illumination and for operation of searchlights and power for the operation of a multitude of auxiliary appliances necessary for the operation of the ship or the comfort of the crew. These functions range from that necessary to operate a cigar lighter to that required for operation of the high-power motors used in our latest ships fitted with electric-drive machinery. Telephones are supplied to meet the requirements of the

interior communication system and the fire-control system and call bells and accessories for various purposes.

It provides steam and electric power for heating and for cooling and portable electric fans for ventilating spaces which may not be adequately served by the main ventilating system of the ship.

In the radio field it supplies all radio equipment for high and low power shore stations and for ships of all classes, including aircraft.

It supplies the machinery, whether steam or gasoline, for the ships' motor boats.

For submarines it provides the oil engines for operation on the surface and the storage batteries and the motors necessary for operation when submerged.

For aircraft it provides the propelling engines and accessories, the wireless equipment, and a supply of gas for balloons and dirigibles.

For navy yards it provides the equipment of machine and hand tools necessary for the operation of the shops of the machinery division, and makes similar provision for the equipment of the repair shops of individual ships and of repair ships which accompany the fleet.

It prepares specifications covering the requirements for all the material and equipment that it uses, operates an inspection force for inspecting this material and equipment at the place of manufacture, and fixes the allowance of supplies for the engineering department of ships in commission.

An experiment station is under its direction for the test of apparatus and for the investigation of engineering problems pertaining to the Navy.

The first work done by the Bureau of Steam Engineering after the outbreak of the war, in August, 1914, to keep in touch with the general situation and to make such preparations as might be necessary to insure the readiness of the material under its cognizance to meet any emergency was to request the department to send abroad an officer qualified to investigate the radio situation. This action was taken August 17, 1914, as shown by the following letter:

NAVY DEPARTMENT,
BUREAU OF STEAM ENGINEERING,
Washington, August 17, 1920.

From: Bureau of Steam Engineering.

To: Department (Material and Personnel).

Subject: Assignment of specially qualified officer as observer of radio operations in European war.

1. The bureau invites the department's attention to the opportunity that is presented in connection with the proposed employment of Army transports in European waters of obtaining information of great value to the naval service. A trained observer, having authority to transfer from one of these ships to another or to United States naval ships in the war zone, could, by simply listening in to the radio communication carried on, acquire information not only as to foreign material equipment but also as to principles of organization and tactical operation in regard to which our service has never received any information and which probably never can be acquired by any other method. It is essential, however, that the officer selected for this duty be one whose qualifications embrace not only expert operating ability but also special training in radio organization as applied to the intricate requirements of tactical use. It happens conveniently that Lieut. S. C. Hooper has just been relieved as fleet radio officer, Atlantic Fleet, and should now be available for this duty. This officer has been engaged during the last two years in establishing an efficient radio organization in the fleet, and he is preeminently qualified for the duty suggested. In fact, his special training for this particular work could not have been improved upon by design. The bureau recommends that the necessary arrangements be made with the War Department and that orders be issued to Lieut. Hooper giving him the largest allowable discretion in obtaining the data desired.

GRIFFIN.

Orders were issued in accordance with the above recommendation and Lieut. Hooper sailed on the *Olympic* the latter part of August, 1914, and remained abroad until January, 1915, returning on the *St. Paul*. The time was spent in England, France, Ireland, Belgium, and Holland. At the time of Lieut. Hooper's visit to Belgium it was occupied by the Germans, but he was nevertheless able to obtain information of value.

It was difficult to obtain information regarding radio matters from the Allies on account of the strict censorship that prevailed but Lieut. Hooper's practical knowledge enabled him to listen in at various places and thus to acquire complete information regarding the system in use by the Allies and the use to which radio was put. This information was later found to be correct when we entered the war. He also inspected the apparatus under manufacture for the British Government and visited the principal high-power station at Carnarvon, Wales, which, at that time, was the largest station in existence. The information of most value that he obtained was in regard to the distant control of radio stations, which was later adopted for our Navy.

As a result of the complete information acquired a board was appointed with a view to improving the communication service of our Navy. The general plan outlined by this board was the foundation of the present organization of the naval communication service and has remained practically unchanged.

March 13, 1915, the General Board submitted to the department an outline of a plan of preparedness. This was approved by the department May 28, 1915, and the bureau directed to make the first report in compliance with this outlined plan in one month following the date of its approval, and subsequent reports quarterly. This was followed by a letter from Operations, June 10, 1915, directing the inspection of merchant ships to determine their suitability for use by the Navy, and the bureau directed to make recommendations regarding the alterations and additions that would be necessary in order to make them suitable for Navy service.

The first report of the bureau, dated June 28, 1915, stated that nearly all merchant ships except those for repair and supply ships could be put in service without delay, or without great expenditure; that plans were under way for the conversion of two merchant ships to repair ships; that conferences had been had with Supplies and Accounts respecting supply ships and refrigerating ships; that all auxiliaries could be immediately supplied with searchlights and blinker sets, and with auxiliary radio sets. General comment was made on other features of the order affecting the supply of engineering material. It was stated that the Bureau of Navigation had been furnished with a list of retired officers required for duty under the bureau; that the bureau would be ready to make specific recommendations regarding merchant ships as soon as reports of the Board of Inspection and Survey were received. This was followed October 8, 1915, by a report that plans had been prepared for the conversion of two repair ships and attention was invited to the fact that no reports of inspection of merchant ships had yet been received.

October 28, 1915.—A letter was addressed to the commander in chief, Atlantic Fleet, requesting that supply officers of two ships of the fleet be directed to fill in opposite certain items of the allowance list, the quantity of such material that had been used during six months or a year—this to enable the bureau to prepare a stock list.

November 9, 1915.—The commandants of all navy yards and stations were directed to submit a detailed plan for the expansion on short notice of the facilities of the machinery divisions of the several yards and stations, and to submit an estimate of the time and cost for accomplishing this. A similar letter was sent to the naval station, Guantanamo, on January 8, 1916.

November 12, 1915.—The commanders in chief of the Atlantic, Pacific, and Asiatic Fleets, torpedo flotilla commander, and the commander of the cruiser squadron, Atlantic Fleet, were directed to report the engineering material they considered it desirable to keep on hand in order to secure a state of preparedness for war. Suggestions were requested as to the engineering material which it was desired to carry on fighting ships, repair ships, and tenders under war conditions, and what similar material should be kept in store for emergency shipment to the fleets.

November 13, 1915.—Letters were addressed to all inspectors of engineering material directing them to report the extent to which the capacity of manufacturing plants in their several districts which were engaged in the manufacture of important engineering material could be increased in case of emergency to meet a sudden demand. A list of the important material was given, and in a letter of December 1, 1915, the inspectors were directed to include machine tools in the list. Similar letters were addressed under date of January 25, 1916, to the inspectors of machinery at the Busch-Sulzer Co., St. Louis, Mo., and at the Babcock & Wilcox Co., Bayonne, N. J., to report on manufacturing plants in the vicinity of their headquarters.

November 22, 1915.—A similar letter was addressed to inspectors of engineering material for a report on articles of electric equipment.

November 23, 1915.—Letters were addressed to the two principal manufacturers of submarine storage batteries and to the one manufacturer of submarine signaling apparatus asking that they submit a list of the articles or component parts thereof which they usually carried in stock, and to keep the bureau advised of changes as they occur. A similar letter, dated January 5, 1916, was addressed to the manufacturers of searchlights.

November 30, 1915.—Letters were addressed to the inspectors of machinery at all principal shipyards to report on the machinery repair and building work that could be undertaken in an emergency at the works to which they were assigned, and also of other ships and engine plants in the vicinity that could be relied upon to assist in the preparation for service of the auxiliary fleet.

December 3, 1915.—Letters were addressed to the commandants of all navy yards and stations directing them to submit lists of material which they considered it desirable to carry in stock.

December 7, 1915.—A letter was addressed to the industrial manager, navy yard, Portsmouth, directing him to submit a report on the maximum quantity of articles that could be manufactured with present facilities by an increase in the number of employees, and similar information regarding the output after 30 days by an increase in the facilities as well as in the number of employees. (The Portsmouth Navy Yard specializes in the manufacture of electrical fittings.)

The second report was dated December 31, 1915, and contained specific recommendations regarding improvements necessary in the machinery divisions of navy yards in order to increase their capacity for work. Difficulty in obtaining machine tools was pointed out. Report was made of the facilities of a number of shipyard and repair plants. Special attention was called to the desirability of increasing the stock of engineering material at navy yards and much information given regarding sources of supply and available material of an engineering character. A list was given of the auxiliaries to be taken over or chartered and recommendation made in each case as to the changes that would be required.

Special attention was directed to the inadequacy of the war detail of officers and technical employees under the bureau and to the duplication of work by the Navy Department and the War Department and by different bureaus of the Navy Department in collecting information to carry out the department's order. Special recommendation was made for obtaining funds to prepare navy yards so that they might quickly increase their facilities.

This report, which might be considered the first report under the operation of the plan outlined by the General Board, covered detailed reports on 10 navy yards and stations, on 22 shipbuilding and repair establishments, and on 300 manufacturing establishments which might be called upon to supply engineering material. The report was of such a comprehensive character as to evoke a condemnatory letter from the Chief of Naval Operations.

January 4, 1916.—Inspectors of machinery were directed to report the changes they considered necessary in their office force and office space in order to meet war conditions. The detail of officers assigned for each office under the mobilization plan was forwarded and suggestions requested regarding any modifications that might be considered necessary. A similar letter was sent to the inspector of engineering material on January 5, 1916.

January 15, 1916.—The bureau reported to the department on the difficulty in obtaining engineering supplies and the delay occasioned thereby, cited numerous cases, and recommended that congressional action be secured in order to assure procurement of such material.

January 28, 1916.—A letter was addressed to the commandants of all navy yards and stations expressing appreciation of the work that had been done in connection with the bureau's report of December 31, 1915, and quoted the commendatory letter received from Operations. The opinion of the commandants was requested regarding personnel, and a statement called for as to whether the detail fixed in the mobilization scheme was considered satisfactory. Similar letters were addressed to the inspectors of engineering material and inspectors of machinery.

January 31, 1916.—The commandant of the navy yard, New York, was directed to report on the engineering work that could be undertaken by ship and engine building and repair plants in the vicinity of New York and Jersey City in connection with the alteration, repair, and outfit of vessels that might have

been taken over for auxiliary service. A similar letter was addressed to the Inspector at the Babcock & Wilcox Co., under date of January 25, 1916; to the Maryland Steel Co., January 29, 1916; to 21 other ship and engine establishments, on February 4, 1916; to 10 others on February 8, 1916; and to three others on March 7, 1916.

February 5, 1916.—The Inspectors of engineering materials were directed to ascertain the usual output and also the emergency capacity of manufacturing establishments in their districts for the manufacture of 20 different articles of equipment, which were enumerated by the bureau.

The third report was dated March 31, 1916, and followed the general line of the preceding one. It gave an estimate of the cost to equip the machinery division of navy yards for building battleships, and noted the addition of certain large tools at Mare Island costing \$133,000. It gave details of the building and repair facilities of 45 private yards and the principal details of 66 merchant ships then under construction, besides information from 8 manufacturing establishments for the supply of engineering material; a summary was given of the recommendations made in the case of 38 ships which had been inspected by the Board of Inspection and Survey.

Special attention was invited to the difficulty in obtaining material, and the bureau's recommendation previously made that authority be obtained from Congress to place an embargo on the export of certain material was quoted. Note was made of the increased cost of material.

A suggestion was made for the employment of store ships as distinguished from supply ships, and a list given of engineering supplies which should be carried by supply ships. A list was also given of the personnel of the offices of inspectors of machinery and inspectors of engineering material recommended as "war personnel."

Under date of April 19, 1916, a memorandum was addressed to the Assistant Secretary of the Navy giving the organization of the material branch of the radio service, which is under the direction of the Bureau of Steam Engineering, in which it was stated that there existed in the bureau a list of the material which various manufacturers were capable of furnishing promptly in the event of war, and also what they could do in a specified time. The department was also advised that the active cooperation of the Marconi Co. had been secured for installation of radio apparatus, etc.

The fourth report was dated June 30, 1916, and contained estimates for equipping submarine bases. Information similar to that contained in preceding reports was given on 2 shipbuilding and repair establishments and 14 manufacturing establishments. A list was given of 43 merchant ships for which new equipment necessary to be installed was given. This report also contained a summary of what had been done during the year and noted that detailed plans had been submitted to the department for the expansion of the facilities of navy yards; that reports had been made on 71 shipbuilding and repair plants; and that the inspection reports of merchant ships numbered 112. Difficulty in securing material was emphasized and the organization of the inspection service submitted.

The fifth report was dated September 30, 1916, and contained details of two shipbuilding and repair plants and of six engineering supply establishments. It recommended that a reserve stock of important engineering material be kept on hand, and that estimates be submitted to Congress for the purchase of it. A list of material required to equip merchant ships was given, amounting to \$495,000. It was noted that the department approved the bureau's recommendation regarding the civilian personnel in inspection offices.

The sixth report was dated December 31, 1916, and contained further details of shipbuilding and repair plants of 15 additional establishments for the supply of engineering material. It gave a list of engineering material that should be provided, amounting to \$2,262,500.

The seventh report, dated March 31, 1917, noted the allotment of \$287,000, under this bureau, from the appropriation of \$18,000,000, for the improvement of navy yards, and stated that additional allotments of \$2,744,000 were required. It gave a summary of material required to meet war requirements to cost \$19,115,000. Recommendations were made for the conversion of 28 merchant ships, and 35 patrol boats.

The eighth report, dated June 30, 1917, noted the approval of requisitions for machine tools for navy yards, and recommended the elimination of advertising for such articles during the war; made special recommendations for

obtaining suitable inspectors and urgently recommended that the bureau be permitted to enroll such men in the Naval Reserve.

The ninth report, dated September 30, 1917, gave a statement of certain additions that had been made to navy-yard equipments. Special mention was made of the fact that our inspectors were resigning to accept positions under the Army because of superior inducements which that service offered.

ELECTRIC DRIVE FOR CAPITAL SHIPS.

One of the outstanding acts of the Bureau of Steam Engineering was its insistence upon the equipment with electric drive of the battleships *California* and *Tennessee* authorized by the act of March 3, 1915. The *New Mexico*, the only capital ship theretofore equipped with electric propelling machinery, had not then been placed in service, but the continued success of the trial installation in the collier *Jupiter*, was so pronounced as to make it seem a matter of duty to take advantage of the superiority which our ships thus equipped would have over similar ships of foreign navies provided with the usual turbine drive.

Similar action was taken in the case of the battleships and battle cruisers provided by the act of August 29, 1916, and this despite the strenuous opposition of one of the contractors for the battle cruisers, and of others more or less peculiarly interested in the adoption of another type of machinery. These contracts were signed in April and May, 1917, but before agreement was reached the strongest kind of influence—exerted through active propaganda over a period of several weeks—was brought to bear upon the department to disapprove the recommendation of the Bureau of Steam Engineering, and to adopt turbine mechanical reduction gear machinery for these battle cruisers. This propaganda manifested itself in letters to the President, in telegrams and letters to the Secretary of the Navy, and in personal interviews with him; in letters to the chairmen of the Committees on Naval Affairs of the Senate and House of Representatives; and in many other ways, including a letter from an eminent professor at a great university, recommending—at the request, he said, of somebody else—that a board of impartial experts be appointed to advise the Secretary what kind of machinery should be installed in these ships.

The subject of electric drive had already received the most serious consideration of the Navy Department, and of those officers responsible for the operation of the ship as a fighting unit, of those responsible for the design of the hull and its protection, and of those responsible for the efficiency of the machinery. It was known to them that it lent itself to the production of a ship having military characteristics superior to those of a ship with any other type of machinery, and as naval opinion was satisfied that it had long since passed the experimental stage, the Secretary of the Navy approved the recommendation of the Bureau of Steam Engineering. This decision has been justified by the superiority which the *New Mexico* (fitted with electric drive) has shown over her sister ships fitted with turbine reduction gear.

GEAR-CUTTING MACHINERY.

It soon became evident that if we were to build a large number of destroyers it would be necessary to greatly increase the gear-cutting facilities of this country. Reduction-gear machinery was of recent adoption and the facilities for its manufacture were very limited, even with those firms who were capable of doing any of it; these being the Delaval Steam Turbine Co., the Westinghouse Co., and the General Electric Co. As the Bath Iron Works had been getting their gears abroad, the bureau decided that the best way to increase our production of gears would be by their manufacture in Great Britain or by the purchase of plans and the manufacture of gear-cutting machinery in this country. Accordingly, steps were taken as follows:

April 21, 1917.—The bureau requested O. N. I. to ascertain from the attaché in London how soon two or more gear-cutting machines could be shipped, and also what delivery could be made of finished gears.

April 23, 1917.—The department communicated with the attaché.

April 25, 1917.—The attaché reported to O. N. I. that 10 sets of gears could be supplied in three or four months if the forgings could be furnished from this country. As the uncertainty of securing such forgings in this country at the time was very great, and as the risk of loss in shipment had to be considered, it was decided that it would be preferable to obtain plans and manu-

facture the machines in this country. The information forwarded by the attaché was confirmed by Admiral Sims under date of April 26, 1917.

April 27, 1917.—The bureau requested O. N. I. to ascertain whether plans of the machines could be obtained.

May 11, 1917.—The attaché reported that drawings for manufacturing gear-cutting machines would be sent as soon as they could be prepared, and the statement was also made that it might be possible to obtain two machines, the British Admiralty having become active in furthering the attaché's efforts.

May 18, 1917.—The bureau requested O. N. I. to inform the attaché that two machines would be purchased and that the drawings of machines were desired.

May 22, 1917.—The attaché informed O. N. I. that drawings could be furnished. The Parsons Co. wrote to the attaché advising that the delicate work on machines be done abroad, and the heavy portions be made in this country, and the machines assembled here.

May 24, 1917.—The bureau requested O. N. I. to instruct the attaché to get drawings and comply with Parsons's suggestion. On the same date the bureau requested the department to ask Rear Admiral Dechair to ascertain whether gears for six destroyers could be obtained in Great Britain within eight months. To this the department replied that it was not then possible to ask this of Admiral Dechair.

June 8, 1917.—The naval attaché wrote the bureau about the drawings that would be supplied.

June 15, 1917.—The attaché reported that the company who were to furnish the drawings expressed an unwillingness to do so and advised that complete machines be purchased.

July 3, 1917.—The attaché reported further that the company repudiates their offer regarding drawings, and he advised purchase of machines. The bureau approved purchase.

July 31, 1917.—The naval attaché reported that the company was proceeding with the manufacture of the moving parts of four machines. Meanwhile, certain drawings had been received, and after much difficulty the bureau enlisted the cooperation of the William Sellers Co., Philadelphia, Pa., in the completion of the manufacture and assembly of the machines in this country. Later it developed that complete machines could be obtained and the agreement with the Sellers Co. was canceled.

DESTROYERS.

At the beginning of the World War in 1914, there were under contract under appropriations made prior to August 29, 1916, 23 destroyers, 7 of which was completed in 1915, 8 in 1916, and 1 prior to April 6, 1917, leaving 7 of the old program uncompleted at the time of our entry into the war.

The acts of August 29, 1916, and of March 3, 1917, made liberal provision for destroyers, the contracts for which were promptly placed and construction proceeding as rapidly as existing facilities permitted. When the act of October 6, 1917, was passed authorizing the construction of 150 additional destroyers, there were then under construction 115, the building of which taxed to the utmost the facilities of the only yards capable of handling such specialized work and required, in addition, the active cooperation of a number of other establishments.

In order, therefore, to make it possible to build 150 additional destroyers in 18 months, as was contemplated at the time, new facilities would have to be created to carry on the work. Several conferences were had with ship-builders, engine and boiler manufacturers, and forgers. Admiral Sims had represented in several communications that any speed greater than 25 knots would suffice for operation against submarines, and it was at first contemplated to give these destroyers a speed of 28 knots instead of 35, the principal reasons for which were that solid shafting might be used, which would greatly simplify the question of production, and that one-half the number of boilers would be necessary. Further consideration in the matter led to the decision to duplicate the destroyers then under contract, which had a speed of 35 knots.

The biggest question that arose in this connection was to supply the forgings for the shafting and the turbines. The Midvale Steel Co. and the Bethlehem Steel Co. were at the time the only establishments capable of manufacturing all the forgings, although the Erie Forge Co. had facilities for the manufacture of most of the sizes. The two former companies were

busy with previous orders and with orders for ordnance material, the Bethlehem Steel Co. having in fact been assigned definitely to Army work and the Midvale Steel Co. to work for the Navy; but as the orders they had for ordnance materials were such as to require the bulk of their product, it was necessary to build at Erie under the direction of the Erie Forge and Steel Co., an entirely new forging plant which could make engine forgings for the destroyers and also gun forgings for the Bureau of Ordnance. The question of time was so important that in laying out the schedule it was found necessary to make additions to the forging plant of the Allis-Chalmers Manufacturing Co., Milwaukee, Wis., to that of the Pollack Steel Co., Cincinnati, Ohio, and to the Camden Forge Co., Camden, N. J., and to allocate to each a definite portion of the forgings required.

The shipyard which had been constructed on a marsh at Squantum was to have no facilities for the manufacture of engines or boilers, and it was therefore necessary to build at Buffalo a shop for the special purpose of manufacturing turbines for the destroyers, which were awarded to the Bethlehem Co. for construction at Squantum.

Although large additions had been made to the machine shops of the Union Iron Works at Alameda, Calif., the facilities were still inadequate for the production of the additional turbines required for the newer destroyers, and as the General Electric Co. had just completed at Erie, Pa., a large shop which, at the time, was without machine-tool equipment, the Navy Department entered into a contract with the General Electric Co. to manufacture the turbines for 40 destroyers, to be built at San Francisco, and equipped the shop for that purpose. It also entered into a contract with the Westinghouse Machine Co. for the construction of turbines for 40 destroyers, to be built by the Newport News Shipbuilding Co. and by the New York Shipbuilding Co. In carrying out this part of their contract, the Westinghouse Co. allotted to the Allis-Chalmers Co., of Milwaukee, the greater part of the machine work. The Cramp Co. of Philadelphia could not take on any more work in their shops, so the Navy Department purchased through the Cramp Co. all the stock of the De La Vergne Machine Co., of New York, and assigned this shop to the use of the Cramp Co. for the manufacture of turbines.

The facilities of the navy yards were also placed at the disposal of contractors for performing much of the machine work on shafting, etc.

The situation with respect to boilers was as acute as that regarding engines, and necessitated the construction at Providence, R. I., of a shop for the express purpose of building boilers for the destroyers at Squantum. The facilities of the Union Iron Works at San Francisco were also increased in this direction by a lease of the Risdon plant to the Union Iron Works, which was utilized for the manufacture of boilers for the destroyers building by that firm. For the 65 destroyers allotted to the Cramp Co., the New York Shipbuilding Co., and the Newport News Co., the Babcock & Wilcox Co., which at the time had large orders for previous destroyers and mine sweepers, as well as for vessels for the Shipping Board, built a large extension to their shop, which increased their facilities to such an extent that they were able ultimately to manufacture a boiler a day.

The manufacturers of pumps were so crowded with orders that they could not take additional work, and after a careful survey of the situation it was decided that the only possible way of obtaining the pumps in time was to remodel the Blake-Knowles plant of the Worthington Pump Co. at Cambridge, Mass., and place the entire order for pumps with that firm.

The order for forced-draft blowers was placed with the Sturtevant Co., of Hyde Park, Mass., and with the Terry Steam Turbine Co., of Hartford, Conn., the order placed with the former requiring a material extension of their works in order to complete the work on time.

In the case of evaporators and distillers, the situation was very much the same as with respect to pumps, and the order for the entire installation was placed with the Griscom-Russell Co., whose works at Massillon, Ohio, were enlarged to take care of this work.

The propellers presented a problem as formidable as any other part of the installation, and the decision finally reached was to enlarge the foundry of the Cramp Co. at Philadelphia and place the entire order with that firm, which had specialized in such bronze castings.

The orders that had been placed with the General Electric Co. and the Westinghouse Co., in addition to the orders they already had from the Shipping Board, were sufficient to monopolize their entire production of reduction gears,

and the only other firms capable of doing the work were the De Laval Steam Turbine Co., of Trenton, N. J., and the Falk, Co., of Milwaukee, Wis. It was at first thought that it would be necessary to enlarge the plant of the De Laval Co., but as work on existing orders proceeded it became apparent that production could be increased to such an extent as to enable this firm to manufacture the reduction gears of the Cramp destroyers without an extension of the plant. In the case of the Falk Co., which was to manufacture the gears for all the destroyers to be built at Squantum, it was necessary to make a material addition to their plant in order to be assured of completing the work on time.

The facilities of the Wellman-Seaver-Morgan Co., at Akron, Ohio, were materially increased in order to enable them to manufacture condensers and other parts of the machinery and hull equipment for these destroyers, and additions to the plants of the Edward Valve Manufacturing Co., Chicago, Ill., the Chapman Valve Co., Indian Orchard, Mass., and the Consolidated Safety Valve Co., Bridgeport, Conn., were made for the manufacture of various valves entering into their construction.

Before we entered the war it was possible to obtain boiler tubes from only one firm in this country, and it therefore became necessary to ascertain the facilities of other tube mills and to formulate a schedule by which these different mills would supply a proper proportion of tubes required in the manufacture of boilers. This was successfully accomplished and no difficulty found in meeting the requirements of the shipbuilders in this regard.

Considerable difficulty was experienced in equipping with machine tools the various new shops that had to be erected and the extensions that had been made to existing shops. Conflict of priority subsequently arose between the Army and the Navy and with industrial establishments, but these difficulties were straightened out after conference and the equipment secured in sufficient time to prevent any material delay in carrying out the activities that had been projected.

Some difficulty was experienced in obtaining large seamless steel pipes and large seamless copper pipes, as there was only one mill of each kind in the country capable of producing these pipes. No considerable delay resulted from this, though in some cases it was necessary to resort to built-up copper pipes in order to meet dates of completion.

The fuel situation which was so acute during the winter of 1917-18 and the extremely cold weather that prevailed contributed in no small measure to retard the building of the new plants under construction for manufacturing the different parts of the destroyers, and thus to have operated as a delay in their construction.

REPAIR OF THE GERMAN SHIPS.

When the United States declared war on Germany on April 6, 1917, all the interned German merchant ships were taken over by the Treasury Department and placed under the immediate control of the collectors of customs of the several ports in which these ships were.

Examination of their machinery disclosed the fact that the engines of all of them were pretty badly damaged. Repairs were proceeding under the general supervision of the Shipping Board in New York, when the engineer officer of the navy yard, New York, Capt. E. P. Jessop, was, in addition to his other duties, assigned to additional duty with the collector of customs in connection with the repair of these ships.

The damage to the engines was of such a serious character that those in charge of the repairs had practically decided that nothing short of renewal of the cylinders would make a satisfactory job. As this would have caused great delay in the completion of these ships and would have greatly delayed their use as troop transports, it was imperative that other means than renewal should be adopted.

The plan to use electric welding for repairing the cylinders was brought to Capt. Jessop's attention and met with his approval, as it did also with that of Rear Admiral Burd, the manager of the navy yard, New York, and was being applied in a limited degree when 16 of these big ships were transferred to the custody of the Navy Department.

As the responsibility for their repair then rested with the Navy Department, instead of with the Shipping Board a careful investigation was made by the department as to the extent of the damage and the plans proposed for their repair. Capt. O. W. Koester was designated as the representative of the Bureau of Steam Engineering to make this examination. His judgment was that the re-

pairs could be satisfactorily made by electric welding, and after a telephone conference between the Chief of the Bureau of Steam Engineering and the industrial manager, navy yard, New York, it was decided to proceed vigorously with the use of electric welding.

The first ship repaired by this method was the *Barbarossa* (*Mercury*), whose repairs were completed at the navy yard, New York. Upon their completion the ship, as was the practice with all succeeding ones, was subjected to a sea trial of 48 hours duration, in order to determine the efficacy of the repairs, and in order that no doubt might exist regarding the safety of troops placed on board these ships. The result proved satisfactory in every particular and all the other ships were repaired in like manner. It is a noteworthy fact that no weakness has ever developed in any of the engines so repaired.

The engines of ships at ports other than New York were similarly wrecked and repairs made either by electric welding, oxyacetylene welding, or by mechanical patching, or sometimes by a combination of two or more of these methods.

Determination of the extent of the damage was in every case a work of most exhaustive and painstaking effort on the part of navy yard authorities, and the fact that nothing escaped detection speaks volumes for the thoroughness with which the work was done. In some cases, important parts of engines were sawed half in two and the cut so carefully concealed as to make detection difficult except by most minute examination. Obstructions were placed in cylinders with the purpose of wrecking the engine as soon as steam was turned on; but this was only one of many of the tricks resorted to that illustrates the working of the German mind in assuming that any engineer worthy of the name would attempt to use the machinery of these ships without making a thorough investigation of every part of it.

In a consideration of the results accomplished in placing these ships in serviceable condition, it should be borne in mind that not only had the engines been damaged beyond repair, as the perpetrators of the vandalism believed, but that their condition was anything but satisfactory owing to the fact that the ships had been laid up for three and a half years and that the machinery had received practically no care during that time. For this reason, deterioration was general and in some cases serious, and the correction of it and the replacement of important parts that had been thrown overboard or otherwise disposed of added greatly to the work of rehabilitation, especially as no drawings were available.

The use of electric welding on such an extensive scale as in the repair of these engines was unprecedented, and the success which attended its use gave an impetus to the art which has probably been far-reaching in industrial work. By its application, it is estimated that at least a year was saved in getting these ships into service and making them available for the transportation of troops to France.

The ships which the Navy repaired and converted to transports and Navy auxiliaries, and their ports of repair, were:

TRANSPORTS.

Present name.	Former name.	Where repaired.
Aeolus	Grosser Kurfurst	New York.
Agamemnon	Kaiser Wilhelm II	Do.
America	Amerika	Boston.
Antigone	Neckar	Norfolk.
Cogington	Cincinnati	Boston.
De Kalb	Prinz Eitel Frederick	Philadelphia.
George Washington	George Washington	New York.
Huron	Friedrich Der Grosse	Do.
Leviathan	Vaterland	Do.
Madawaska	Koenig Wilhelm II	Do.
Martha Washington	Martha Washington (Austrian)	Do.
Mercury	Barbarossa	Do.
Mount Vernon	Kronprinzessin Cecilie	Boston.
Pocahontas	Prinzessin Irene	New York.
Powhatan	Hamburg	Do.
President Grant	President Grant	Do.
President Lincoln	President Lincoln	Do.
Princess Matoka	Prinzessin Alice	Cavite and New York.
Susquehanna	Rhein	Norfolk.
Von Steuben	Kronprinz Wilhelm	Philadelphia.

NAVY AUXILIARIES.

Present name.	Former name.	Where repaired.	Duty.
Astoria.....	Frieda Leonhardt.....	Charleston.....	Auxiliary.
Bath.....	Andromeda.....	New Orleans.....	Do.
Beaufort.....	Rudolph Blumberg.....	do.....	Do.
Bridgeport.....	Breslau.....	New Orleans and Boston.....	Repair ship.
Camden.....	Kiel.....	Charleston and Philadelphia.....	Tender.
Gulftort.....	Locksun.....	Pearl Harbor.....	Auxiliary.
Hermes.....	Hermes.....	do.....	Do.
Houston.....	Liebenfels.....	Charleston.....	Do.
Kittery.....	Præsidient.....	Philadelphia.....	Do.
Long Beach.....	Hohenfelde.....	Charleston.....	Do.
Newport News.....	Odenwald.....	Philadelphia.....	Do.
Pennscola.....	Nicarja.....	Charleston.....	Do.
Quincy.....	Vogesen.....	Pennscola and New Orleans.....	Do.
Samoa.....	Staatssekretar Soli.....	Samoa.....	Do.
Savannah.....	Saxonia.....	Puget Sound.....	Tender.
Schurz (gunboat).....	Geier.....	Pearl Harbor.....	Gunboat.

Besides these, the following ships which had been similarly damaged were repaired and fitted out by the Navy for the United States Shipping Board :

Present name.	Former name.	Where repaired.
Adelheid.....	Adelheid.....	New Orleans (received from Cuba).
Apples.....	Elisaas.....	Mare Island.
Bavaria.....	Bavaria.....	New Orleans (received from Cuba).
Chattahoochee.....	Sachsen.....	Olongapo and Puget Sound.
Constantia.....	Constantia.....	New Orleans (received from Cuba).
Itas-a.....	Setos.....	Mare Island.
Nyanza.....	Esslinger.....	Cavite.
Olivant.....	Olivant.....	New Orleans (received from Cuba).
Philippines.....	Bulgaria.....	Norfolk.
Quantico.....	Lyemmoon.....	Olongapo.
Rajah.....	Rajah.....	Mare Island.
Rappahannock.....	Pommern.....	Do.
Raritan.....	Carl Diederichsen.....	Olongapo.
Suwanee.....	Mark.....	Do.
Tacony.....	Staatssekretar Kraetke.....	Pearl Harbor and Mare Island.
Teresa.....	Teresa (Austrian).....	New Orleans and Norfolk.
Ticonderoga.....	Camilla Rickmers.....	Olongapo.
Tipperanoe.....	Holsatia.....	Mare Island.
Tunics.....	Cambis.....	Olongapo, Cavite.
Wacouta.....	Prinz Waldemar.....	Puget Sound.

HELIUM.

The danger to personnel involved in the use of hydrogen-filled balloons was one whose seriousness was generally recognized, but up to April, 1917, nothing had been done to secure a substitute of less inflammability. As soon as we entered the war, the British Government referred to our military and naval authorities various research problems, the solution of which it was believed would assist in winning the war. Among these was that of securing an adequate supply of helium for use in observation and dirigible balloons.

Investigation made before the war showed that considerable quantities of helium existed in the natural gases of Kansas, Oklahoma, and Texas, but up to 1918 none had ever been produced in quantity, and its cost in the small quantities that were available was prohibitive, even for war purposes. However, after consideration of the question by the Joint Army and Navy Aircraft Board, and after consultation with the Bureau of Mines of the Interior Department, it was decided in October, 1917, to assign to that bureau the work of securing helium from the gas of the Petrolia field in Texas, the cost of the undertaking to be borne equally by the Army and Navy, and the interests of the two military departments to be under the supervision of the Navy Department, represented by the Bureau of Steam Engineering.

The Bureau of Mines was confident that it could secure the gas by a new and original process in which it had the utmost confidence of success, and that in doing so the gas would be secured at much lower cost than was possible by existing methods. Realizing the delays consequent upon the development

of any new process, and appreciating the importance of obtaining helium with the least delay possible, the Bureau of Steam Engineering felt that if the gas was to be obtained in time to be of use dependence must be had upon commercial companies whose business it is to market gas. As a result of this, contracts were entered into by the Bureau of Mines for the construction at Fort Worth, Tex., of two experimental plants, one under the direction of the Linde Air Products Co. and the other of the Air Reduction Co., while work on the Norton process by the Bureau of Mines was prosecuted at Petrolia.

The first plant to be completed at Fort Worth was in March, 1918, and the second in May, 1918. After some minor difficulties were overcome, the complete success of one of these plants was assured, as was later that of the other, and at the time of the armistice sufficient "argon," the camouflaged designation of helium, had been produced to enable a quantity to be prepared for shipment to Gen. Pershing's forces.

The experimental plant of the Bureau of Mines was not completed until October, 1918, but did not succeed in getting the gas, though the result secured was encouraging. Certain modifications and additions were found to be necessary, and experiments are at this date (May 1, 1920) still under way, but although the latest test showed a marked improvement, gas of the purity desired has not yet been obtained.

The success of the first plant was so pronounced that the Joint Army and Navy Aircraft Board, in August, 1918, recommended the production of helium in quantity, and in approving this recommendation the Secretary of War and the Secretary of the Navy decided that one agency should do the entire work, and that as the Navy had supervision of the work up to that time, the Navy should act for both departments. Accordingly, a production plant was designed under the direction of the Bureau of Steam Engineering by the organization that first produced helium, and the construction of the plant at Fort Worth placed under the direction of the Bureau of Yards and Docks. The creation of this plant made necessary also the laying of a pipe line from the field to Fort Worth.

SUBMARINES.

The K boats, about whose unsatisfactory condition Admiral Grant testified, were authorized by the acts of June 24, 1910, and March 4, 1911, and contracts were awarded May 31, 1911, and October 27, 1911. Four were built on the east coast and four on the west coast, all from designs of the Electric Boat Co. Their engines were of the two-cycle type and had been unsatisfactory ever since the boats were turned over by the contractors, and every endeavor made to improve their operating condition was without success.

In February, 1917, on account of the more or less unsatisfactory condition following a previous overhaul Admiral Grant recommended that new engines be installed in these boats. This recommendation received the approval of Admiral Mayo, then at Guantanamo, on March 9, 1917, and on March 17, 1917, the Navy Department directed the Bureau of Steam Engineering to take the steps necessary to put the K boats in such condition that they might be "relied upon for active war service at the earliest possible date."

As the installation of reliable engines in the space available would result in a decrease of more than a knot in the speed of these boats, the Bureau of Steam Engineering before placing a contract brought the matter to the attention of the department and asked definite instructions as to whether this reduction in speed would be satisfactory. This was referred to Admiral Grant for consideration, and on April 15, 1917, he reported that the speed would be satisfactory. Meanwhile the Bureau of Steam Engineering had taken steps to ascertain whether engines could be procured promptly, and on May 4, 1917, a contract was entered into with the New London Ship & Engine Co. for eight engines (for four boats) and directed the manufacture of eight others at the Mare Island Navy Yard. The first of the engines under contract was to be delivered in 8 months and all within 11 months. Delivery of those building at Mare Island was to begin December 1, 1917, and to be completed by March 1, 1918.

June 23, 1917.—Operations requested the Bureau of Steam Engineering to recommend 12 submarines for distant service. Among those recommended by the bureau were the K-3, K-4, K-7, and K-8, which at the time were in the Pacific, and in doing so the bureau stated that its preference for those boats was due to the fact that the corresponding boats in the Atlantic had not proved as satisfactory in operation as those in the Pacific.

July 2, 1917.—Operations directed the commander in chief of the Atlantic Fleet to designate the 12 most suitable submarines on the Atlantic coast for distant service.

August 15, 1917.—The department ordered that the four K's and other boats on the Atlantic coast be prepared for distant service.

The four K's arrived at the Azores early in November, much of the trip having been made in bad weather. The commander of the division reported that of these four boats the K-6 made the best record and was ready for duty. K-5 was ready and the K-2 also, but that she was less reliable than the K-5. In the case of K-1 he reported that both engines were entirely disabled, but that material and spares for making necessary repairs were available, and that the four boats were "capable of the duty they are now stationed to perform," and that "good service may be expected of them." The flotilla commander, whose previous experience with submarines had been with the K boats in the Pacific, stated that the K-3, K-4, K-7, and K-8 could have arrived in far better average condition.

July 13, 1917.—The commander of the submarine force, Admiral Grant, reporting on the availability of destroyers, listed the four K's in the Atlantic as being available, and also recommended that no submarines with two-cycle engines (K and L types) be sent abroad.

March 1, 1918.—The commander of the submarine force, forwarding a copy of the report of the commander submarine flotilla 2, dated December 29, 1917, on the voyage of the L-1, L-2, L-10, and L-11, states:

"The performance of the main engine during this voyage will serve as a warning to those who would condemn two-cycle engines on account of their reliability. Such troubles as were experienced were minor and not considered due to the cycles. The flotilla commander's opinion expressed in paragraph 10, 'dated the design of the engines of the K and L classes, though by no means as good as they should be, was better than the material and workmanship that entered into their manufacture and the attendance the engines had received in service' is concurred in by the force commander."

That the department was not unmindful of the necessity of reengining serviceable boats that had the unsatisfactory two-cycle engines may be seen from the following statement regarding the installation of new engines in different types of boats:

E-1.—New engines were installed August, 1916. The contract for the engines was placed in 1915.

E-2.—New engines were installed in March, 1918; the contract was entered into in 1916, but as the engines were built in Sweden, some delay was experienced in getting them to the United States.

F-1, F-2.—Contracts for new engines were made in August, 1916, and the F-3 engines installed in two of them in August, 1917, and in the third in October, 1917.

H-1, H-2.—New engines were installed in August and October, 1918.

H-3.—These engines were ready for installation earlier but were not installed on account of the duty the boats were engaged upon at the time. They had been ordered for K's, and another contract to replace the K engines was made January 4, 1918, delivery to be completed in June, 1918.

K-1 to K-8.—Contracts for these engines as has previously been stated, were made in May, 1917, but as the boats were operating during the war, the actual installation did not take place until 1919, covering a period from May until October.

C-1 to C-5.—Contract for new engines made October 4, 1917.

D-1 to D-3.—Delivery to be made July, 1918.

Of the 18 submarines under construction August 4, 1914, six of the K's were delivered before the end of the year, and seven L's between April and September, 1916, leaving four L's and one M undelivered.

Contracts for further construction were entered into, as follows:

In 1915 for 7 N's and 6 O's.

In 1916 for 10 O's, 6 R's, and 2 S's.

In 1917 for 1 O, 21 R's, and 39 S's.

In 1918 for 10 S's and 6 H's.

The deliveries made under these and previous contracts before the armistice were:

In 1917 1 L and 3 N's.

In 1918 3 L's, 1 M, 4 N's, 15 O's, and 4 H's.

The six boats of the H type ordered in 1918 were boats that had been constructed for the Russian Government. They were purchased in knocked-down condition and assembled at the Puget Sound Navy Yard.

The great increase in the submarine-building program taxed to the utmost the existing facilities for the building of engines and storage batteries, and while the former condition could be met, as it was, by building engines in navy yards, there were only two firms in the country with facilities and the necessary experience for building submarine storage batteries, and as a large number of spare batteries were ordered immediately after our entry into the war, the task set for these two companies was one of gigantic proportions. The situation was, however, satisfactorily met, and at no time was one of our submarines out of service on account of her batteries.

SUBMARINE CHASERS.

In February, 1917, the question of increasing the number of patrol vessels came up for consideration, and this led to the projected design of a boat requiring about 600 horsepower to give a speed of 18 knots. It was known to the bureau that the Standard Motor Construction Co. had furnished engines of 220 horsepower for 80-foot boats for the British Navy, but the adoption of this engine would necessitate the use of three screws, which it was desirable to avoid. The bureau, therefore, on February 19, 1917, addressed communications to the six principal builders of large-size gasoline engines, asking them whether they could manufacture an engine of 300 horsepower, and if so, to give data respecting it, and also the rate at which they could be manufactured.

The replies from all were unsatisfactory, though the Standard Motor Construction Co. expressed the view that their engines of that power would prove satisfactory. It was, however, not in production, and as the 220 horsepower engine had proven satisfactory in the British 80-foot boats, the bureau decided to adopt that engine, notwithstanding the objection to the use of three screws in such small craft. It was, however, believed that reliability of the engine would more than compensate for this disadvantage, and the much quicker deliveries possible with it made its adoption imperative.

Further communication was had with the Standard company up to March 8, 1917, when a representative of that company was asked to confer with the bureau regarding the final arrangement. On March 12, 1917, the bureau asked the Standard company to submit a quotation for engines. This was submitted on March 20, 1917. The Standard company was notified on the 21st that the proposal was not satisfactory and was requested to send a representative to confer in the matter. This conference took place on the 22d, at which an agreement was reached and the proposal of the Standard Co. recommended for approval. The department approved this on the same date, and a draft of the proposed contract was sent to the Standard Co. that day.

The first contract provided for the construction of engines for 150 of these vessels, which later was extended to 462, and made what at first was a comparatively easy order for the contractor a task of great magnitude, the speedy completion of which required the closest attention on the part of the bureau and its inspection force to the placing of orders for material, the following up of such orders, priority of completion and assignment to builders of the hulls, transportation, the supply of fuel and electric power for the contractors and subcontractors, and many other conditions that had a material bearing on the readiness of the machinery as required.

SUBMARINE DETECTION.

In February, 1917, the Bureau of Steam Engineering assembled in Washington a group of scientists to report on the practicability of utilizing magnetic power for the detection of submarines. The scientists composing this group were recommended by the National Research Council and came from the leading universities, where they occupied high positions as physicists. They gave their services without charge and were paid only their actual expenses. The result of the deliberations of this group was a unanimous decision that magnetic detection was of such limited application as to make its use inadvisable for the purpose contemplated, an opinion which later experience during the progress of the war fully confirmed. The members of this board were: Dr. L. A. Bauer, of the Carnegie Institution, of Washington, D. C.; Dr. Ernest Merritt, of Cornell University; Dr. H. A. Bumstead, of Yale Uni-

versity; Dr. A. C. Lunn, of Chicago University; and Dr. H. W. Nichols, of the Western Electric Co.

In March, 1917, at the request of the Bureau of Steam Engineering and through the activity of the National Research Council, the Western Electric Co. carried on experiments with a detection device which had previously been brought to the attention of the bureau.

In May, 1917, the department requested the General Electric Co., the Western Electric Co., and the Submarine Signaling Co. to send representatives to the department to confer on the subject. These three companies had previously done work along this general direction but each operating alone, and it was felt that if cooperation of the three could be secured we should be in a better position to hope for good results. The result of the conference was that the necessary cooperation was promised. Active operations in the development of the listening devices were begun at New London, Conn., and at Nahant, Mass., the groups at each place being under the general control of the commander of the submarine force. At Nahant the work was carried on actively by the Submarine Signaling Co. in cooperation with the General Electric Co. At New London there was assembled a group of scientists to whom were referred all devices which were submitted to the Navy Department and which appeared to possess merit. About this time representatives from France and Great Britain came to this country, bringing with them the results of their experience and in some cases the instruments themselves, and the group at New London prosecuted their work by eliminating all character of work which the Allies had found to be unproductive of good results.

The development work carried on at Nahant and at New London was highly satisfactory and it is recognized that the devices developed by these two groups were by far the best of any that had been used during the war. It is a matter of record that the first installation abroad was responsible for the loss of a German submarine.

An interesting feature of the development of detection devices was that it forced the German submarine to the adoption of means for running as noiselessly as possible, and this in turn forced us to the production of instruments still more sensitive than those first produced. In other words, there was a matching of brains, but as the submarine had reached her limit in slow running submerged our progress thenceforth was real advance toward her destruction; and at the time of the armistice such progress had been made in the development of these devices and their application to destroyers and submarine chasers as to give the fullest confidence in our ability to defeat the submarine.

"EAGLES."

As the war progressed and the demand for antisubmarine craft became more and more insistent, various propositions were submitted looking to the building of more vessels of this type, the facilities for which would have to be additional to any then known to the Navy Department. A summary of the procedure follows:

December 14, 1917.—The Chief of Naval Operations forwarded to the bureaus the characteristics of a 200-foot patrol boat which it was considered desirable to build, and immediate preparation was made for the design of the machinery.

December 23, 1917.—Mr. Henry Ford offered the facilities of his establishment not otherwise employed for the building of patrol vessels.

December 24, 1917.—The department informed Mr. Ford that the proposition interested us, and requested that he send some of his engineers and production men to confer with the designers of the Navy Department and get full information, in order that he might be in a position to submit a definite proposition.

January 10, 1918.—The bureau advised Operations that Steam Engineering was proceeding with the design of machinery for the vessel whose characteristics had been furnished.

January 12, 1918.—A conference was held at the Navy Department which was attended by Mr. Henry Ford and some of his designers, by the engineer in chief, and Rear Admiral Dyson, and by the chief constructor and Naval Constructor Stocker. The outlined plans of the proposed boat were shown to the Ford people and an interchange of views was had with them. Their ideas in regard to the type of machinery that was suitable for such a boat were very

crude indeed, and it early became evident that they were unfamiliar with the design of machinery suitable for such vessels. They were, however, responsive to our suggestions and accepted our judgment in the matter when the circumstances were explained to them. They were advised to get in touch with the Poole Engineering Co., of Baltimore, Md., whose turbine appeared to possess greater merit for this particular service than any other known to the bureau. They were advised that the bureau would furnish the design of boiler and would assist them in the preparation of plans and render such other assistance as might be necessary.

January 14, 1918.—The Bureaus of Steam Engineering, Construction and Repair, and Ordnance made a joint report to the department recommending the construction of the 200-foot boat whose design had been in preparation.

January 14, 1918.—Mr. Ford wired that he could build boats and gave a schedule of construction beginning in five months and working up to 25 a month three months thereafter. He also stated the estimated cost of the boats, but particularly emphasized the fact that he was not a shipbuilder and would not care to be held to his estimate.

January 18, 1918, to January 30, 1918.—The bureau was in almost daily communication with the Poole Engineering Co. either by letter or by telephone fixing upon the details of the engine installation.

January 18, 1918.—Award of contract was made to the Ford Motor Car Co. about this date, and Admiral Dyson and Naval Constructor Stocker were ordered to Detroit to look over the plant and advise regarding construction.

March 1, 1918.—The contract was signed for the construction of 150 boats. The act authorizing the construction was dated March 4, 1917.

As these vessels were to be used exclusively for operation against submarines, special provision was made in the preparation of the design of the machinery, to eliminate as far as practicable all reciprocating machinery, both main and the auxiliary machinery, in order that the listening devices with which they were to be equipped would be affected the least possible by the noises within the vessel itself. The result of the trials of these vessels shows that this was accomplished in a very satisfactory manner.

MINE SWEEPERS.

The act of March 4, 1917, provided for the construction of numerous small craft, including mine sweepers; and as all the principal shipbuilding yards were working to capacity, considerable difficulty was experienced in placing the orders for 36 sweepers, subsequently increased to 54.

The design of the machinery would have consumed valuable time if a new design had to be made, and after making inquiry of various shipyards it was decided to utilize a design which had been used by the Harlan & Hollingsworth branch of the Bethlehem Shipbuilding Corporation and which, though not exactly what was desired, could be made suitable for the purpose.

A contract was entered into with the Harlan & Hollingsworth Co. for the preparation of plans and patterns, for the placing of orders for the principal material, and for its delivery to the various building yards when required. Contracts for 36 sweepers were made from June to September, 1917, and for 18 others October, November, 1917, and September, 1918, and the work carried on without delay, although progress was much slower than we had hoped for and much slower than the builders had anticipated.

TUGS.

There was a great demand for seagoing tugs during 1917; but as the most powerful and most desirable ones were engaged in coastwise traffic, transporting coal from Hampton Roads to New England ports, the diversion of these tugs, especially during the severe winter of 1917-18, could not be considered without entailing great hardships and perhaps seriously interfering with the production of munitions. As tugs became available they were purchased, and whenever building facilities could be found either at navy yards or at private establishments they were availed of for the construction of tugs. Orders for two seagoing tugs were placed with a Lake firm in May, 1917, and other orders to the number of 17 with navy yards and others in May and June, 1918.

Orders were also placed about the same time for 40 wooden harbor tugs to meet the demands of the large fleet of N. O. T. S. vessels.

MAINTENANCE IN EFFICIENT CONDITION OF THE MACHINERY OF THE FLEET.

To maintain the machinery of the fleet in efficient operating condition was a task of the greatest magnitude. It not only involved caring for the purely naval vessels that constituted the fleet before the war but also for the hundreds of merchant ships that had been transferred to the Navy for operation, for the yachts and patrol vessels assigned to duty in home and foreign waters, and for the submarine chasers and mine sweepers that had been added in such large numbers. To do this entailed a vast amount of work in acquiring detailed knowledge of the machinery of this heterogeneous combination of ships, and when this was obtained it involved decision as to the kind and the quantity of special material that it would be necessary to carry in stock in order to meet the demands of service at home and abroad. Then followed preparation of requisitions for material, following up while under manufacture and keeping a record of its whereabouts after delivery. The whole duty involved organization of the highest order and was carried out in the most satisfactory manner.

The facilities of the navy yards were expanded and the fullest use made of the available facilities of private establishments in order to keep ships in condition. For the destroyers and patrol vessels operating abroad first one, and ultimately six repair ships were detailed to this important work. These vessels rendered service of the greatest value, and without them it is safe to say that it would not have been possible for our destroyers to have made the wonderful record for efficiency that is accorded them on all sides. Admiral Sir Lewis Bayly, R. N., who was in command at Queenstown, has this to say of them:

"Without these repair ships the work could never have been done. Working full 24 hours in three shifts of 8 hours each, sleeping among the noises of the machinery, always ready for extra work when an unexpected accident happened or an unforeseen call was made on a destroyer that was being dealt with, they never failed me. Capt. J. F. R. Pringle, of the *Melville*, and Capt. N. B. Price, of the *Dixie*, were not only always ready to do the expected but used their utmost endeavors to be prepared for the unforeseen, and the result was such as their country has reason to be proud of."

At this end of the line requisitions were promptly made for material such as would be in greatest demand by the repair ships, and the closets liaison maintained between them and the repair division of the bureau. When, as happened on more than one occasion, a destroyer was seriously damaged by a submarine or in collision, replace parts were either ready at the base or on this side ready for shipment before the hull was repaired sufficiently to admit of their installation.

Boiler and condenser tubes were provided in quantity sufficient to meet every demand, and as illustrating the capacity of the repair ships and the cooperation of the destroyers, it may be mentioned that the retubing of the boilers of a destroyer was carried out by a repair ship without loss of a day from her patrol duty, by taking advantage of the rest of four or five days in port following periods of cruising, and that during this time the destroyer was capable of making upward of 25 knots at any time.

Besides taking care of the convoy and patrol vessels, the repair ships rendered invaluable assistance to merchant ships of our own and allied countries, and assisted materially in keeping them in operating condition.

In order that destroyers might not be subject to enforced periods of inactivity due to boiler casualties, orders were issued in April, 1917, for the manufacture at each of four navy yards a set of boilers (four) suitable for any destroyer then in service. The wisdom of this was later evident when the boilers of one of the Queenstown destroyers needed retubing; new boilers were so nearly ready that the Bureau of Steam Engineering recommended to the department that the vessel be brought home and the new boilers installed, when retubing of the old ones could be undertaken and the boilers made ready for installation in another destroyer. The commanding officer preferred to remain abroad and have the new boilers shipped out, but as this procedure would have consumed valuable cargo space and would also have exposed the boilers to loss by submarine attack, the department approved the recommendation of the bureau and ordered the vessel home. Renewal of the boilers was effected in less than seven weeks.

To supplement the work of the repair ships, five major repair bases were established abroad, three in France, one in Great Britain, and one at Gibraltar,

with two minor bases in the Mediterranean. The tool and material equipment for these bases was provided by the Bureau of Steam Engineering.

The work of supervising the repairs to the machinery of the fleet was greatly facilitated by the installation of special wires to each navy yard, which enabled instructions to be given by phone, which later were confirmed by letter, a practice which subsequently was generally adopted throughout the department.

The work of the east coast navy yards during this period is beyond praise, and where all worked so willingly and so successfully it would be a disparagement to single out one for special mention. The west coast yards, though far from the scene of activity, and not called upon to assist in the maintenance work, contributed their share to the general good in reconditioning German ships and in building destroyers, submarines, submarine chasers, and mine sweepers.

WIRELESS TELEGRAPHY.

The radio work of the Bureau of Steam Engineering has always been recognized as occupying a foremost position in the radio world, and much of the progress made in recent years has been due primarily to its initiative. In order to be prepared to place the material of our radio communication service in the condition which actual war conditions demand, Lieut. Hooper, as previously stated, was sent abroad in August, 1914, to study, as best he could under the restrictions placed on neutrals, the methods followed in conducting radio communication. Being an expert operator, as well as skilled in the technique of the art, he was able to "listen in" in Great Britain, France, Holland, and Belgium (in the portion at the time in German possession) and thus to acquire valuable information regarding methods of communication. His conclusions were that, so far as material was concerned, we were fully as well equipped as were the nations at war, and that their only point of superiority was in methods of communication, a feature of the service which does not pertain to the Bureau of Steam Engineering.

After we exercised a censorship in September, 1914, over messages transmitted by high-power radio stations, considerable work was necessary on the part of the bureau in connection with the maintenance of the force engaged in censorship; and when in November of that year there was a serious breakdown of the transmitting apparatus at Tuckerton, the interests of the United States in transoceanic radio communication were considered of so much importance as to cause the bureau to transfer from Arlington to Tuckerton transmitting apparatus which enabled the station to continue operation.

After our entry into the war the absolute control of all radio stations passed to the Government. This meant responsibility by the bureau for the efficient operation of all stations whether high power or low power, and resulted ultimately in the final acquisition by the Navy Department of all coastal stations owned by the Marconi Co. and by the Federal Telegraph Co., the latter including as well the high-power stations of that company at San Francisco and at Honolulu. With the purchase from the Marconi Co. went also the ship stations maintained by that corporation, which at the time were limited almost entirely to some vessels of the Shipping Board and the Railroad Administration. These duties were also extended to the equipment with radio of all ships under control of the Shipping Board, and to all patrol and auxiliary vessels acquired by the Government. Broadly speaking, it may be said that the duties of the bureau in connection with radio covered every vessel that flew the American flag and all naval aircraft. The number of installations exceeded 4,000.

The serious results that might follow cutting the cables pointed to the necessity for the construction of additional high-power stations for maintaining communication with our forces in France. To carry this into effect, the bureau designed and equipped at Annapolis, Md., a high-power station which was completed in the late summer of 1918, and designed another still more powerful to be erected at Monroe, N. C., and had made plans for its construction when the armistice put an end to further negotiations. As a complement to the Annapolis station, the bureau, at the request of the French Government, designed and provided the equipment for a powerful station located near Bordeaux, France. The construction of this station was well under way at the time of the armistice, and at this date (May 1, 1920) is nearly ready for operation. The work of constructing the towers and buildings at these stations was under the direction of the Bureau of Yards and Docks; the foundations for the station near Bordeaux were furnished by the French Government.

Another high-power station, though less powerful than the Annapolis station, was designed and erected at El Cayey, P. R., in order to assist in communication work.

In addition to this new construction, the bureau made important improvements to the German-owned Sayville station after its acquisition from the Allen Property Custodian, and also to the Marconi station at New Brunswick, N. J., which late in the war became the best of our high-power stations.

The need for radio communication with our troops in eastern Siberia made necessary the equipment of an abandoned Russian station at Vladivostok. The equipment for this station was hurriedly assembled, most of it being taken from one of the stations at Hawaii which had been purchased from the Federal Telegraph Co. and transported by the *Saturn*, which also carried the personnel necessary for its erection and for operating the station. The successful completion of the undertaking was a very creditable piece of work.

Some of the most noteworthy radio developments of the war in which the bureau was intimately concerned were:

(a) The radio compass, which enables a vessel at sea to obtain her accurate position in any kind of weather, and also to locate other vessels having radio equipment. This work dates from the early part of 1916, and the first ships were equipped with it early in 1917. The application of this principle to aircraft followed and was notably successful in the flight of the NC-4 from the Azores to Lisbon.

(b) Radio for aircraft, which developed from practically nothing to apparatus capable of transmitting a distance of 200 miles. In this work the officers and employees at the aircraft radio laboratory and at the radio test shop played a very important part.

(c) The radio telephone, the first installations of which were made on the *Arkansas* and *Florida* in February, 1916, following the same general plan as that used in the demonstration by the Western Electric Co. in 1915. Other installations followed soon thereafter, and later the Western Electric Co. designed the improved type which was installed in our submarine chasers and elsewhere.

(d) Underground and underwater radio experiments were carried out early in 1917, and development made of the underground system suggested by Mr. J. H. Rogers, resulting in the application of the system to several distant control stations. Experiments in 1918 on underwater radio, in cooperation with the Bureau of Standards, resulted in greatly improving the transmitting and receiving radio of submarines.

The operation of our ships in European waters with the fleets of the Allies made necessary many changes in the type and arrangement of the radio equipment of our vessels, and also the establishment of repair and supply facilities at naval bases abroad. These repair bases not only cared for the wants of our patrol and convoy vessels, but also for those of transports and supply ships, and rendered necessary a high order of ability in the operating personnel. One was established at Queenstown, one at Gibraltar, a third at Brest, and others at seven other places in France, one at Plymouth, and one at Corfu, the latter to care for our submarine chasers in the Adriatic.

Perhaps the most comprehensive idea of the increase in volume of radio work on account of the war may be gained from the statement that before the war the Bureau of Steam Engineering was responsible for the material condition of 49 coastal stations and ship stations, and that at the time of the armistice these figures had grown to 229 and 3,775, respectively, while the high-power stations had increased in number from 5 to 15 in operating condition, and two more under construction.

AVIATION.

The small volume of business transacted before 1917 may be inferred from the statement that, at the beginning of the war, the personnel of the Bureau of Steam Engineering engaged in such work comprised one officer and one stenographer, with three officers on inspection work in the field. As the aviation policy of the department shaped itself, it became apparent that a large expansion would be necessary with an organization suited to the special requirements. Qualified personnel was not to be had, and so recourse was had to the expedient of selecting from the reserves young men with a predilection for mechanical engineering, sending them to the Massachusetts Institute of Technology for an intensive course in engineering that had been

established there under the direction of the Bureau of Navigation, thence for a short tour of inspection at airplane or engine factories, and then to the bureau, where they were required to specialize in one particular part of the power plant equipment. By this method, and by the addition of two regular officers, the force engaged in this work grew to 40 officers and 60 clerks and stenographers, and did very satisfactory work.

Somewhat similar action was taken to secure qualified officers for handling hydrogen gas. The Bureau of Navigation established a school at the naval air station, Rockaway, Long Island, and thither were sent young reservists who had had experience in the generation and handling of the gas. Upon completion of the course, they were assigned to air stations from which dirigibles were operating.

A careful survey of the aircraft engine field showed that there was not in this country at the beginning of the war an engine that had been developed, or that was in process of development, that met the requirements of military service. Nor was there available abroad an engine of sufficient power and proven reliability that could be transplanted and put in production in time to be of real service. All reports from abroad pointed to the need of engines of greater power than those in use, and as the military advantage to be gained from having but one type of engine was of the greatest consequence, it was early decided to adopt the Liberty engine, which had been designed under the direction of the Aircraft Production Board, of which the aviation officer of the bureau was a member. The wisdom of the decision was fully confirmed in service.

It was necessary to provide engines for training planes, and these were purchased in quantity from manufacturers of lower-powered engines. The difficulty in obtaining a supply of spare parts occasioned much delay and vexation at training stations, and this was relieved only when the bureau itself established sources of supply independent of the manufacturers of the engines.

The design of propellers suitable for the Liberty engine was a problem of no small magnitude, but was satisfactorily solved after a few trials, and thereafter production kept up with demand. Serious problems, however, arose in connection with their packing and their transportation abroad, but these gradually disappeared as experience dictated changes in methods.

Important work was done by the bureau in the development of the geared Liberty engine; in the design of radiators; in the design of hand and electric starters; in the design of leak-proof gasoline tanks; and in the development of a steam-power plant for aircraft.

In addition to the 10 air stations in this country, the department established 20 such stations abroad, all of which required detailed attention in connection with their maintenance and operation, as did also their equipment with machine and hand tools.

SUPPLY OF MATERIAL.

It early became apparent that the problem of obtaining engineering material and supplies, both for the direct use of the Navy and for those having contracts for new construction, would be one difficult of solution and of increasing complexity. Owing to the unsettled labor conditions the prewar forms of contracts prescribing penalties for failure to complete contracts on time had to be abandoned, and, in many cases, contracts had to be changed from a fixed price to a "cost-plus" basis. This and the steps taken to guard against sabotage made necessary increased vigilance on the part of inspectors and an increase in the number over that which would have been required under the usual prewar conditions. Naturally, the new men taken on were more or less inexperienced, which condition in itself increased the responsibility of the inspectors in charge, many of whom were retired officers, and all of whom rendered service of the highest order.

The demand for material increased tremendously, owing to the requirements of new Government activities as well as those of a private character closely affiliated with Government work. This led to the creation of the War Industries Board, with its priorities commission (or board), through which the resources of the country were controlled and material directed into channels where it was most needed. This meant that the Navy's engineering requirements had to be most carefully studied in order that delivery might be secured, when and in the same manner required, and also that unnecessary or unreasonable demands might not be made to the detriment of other essential war activities.

Questions of priority were continually arising, and, in order to keep in closest touch with the production of material, it soon became necessary to have in the field of manufacture officers whose sole duty it was to follow up orders and to see that orders of priority were observed. Accordingly, a number of business men of ability—all over draft age—who were willing to devote their time to Government needs, were enrolled as officers in the reserve and detailed to this important duty, which they discharged with conspicuous ability. A corresponding "follow-up" section was established in the bureau, through which it was possible always to know the exact status of all important engineering material under contract.

In some cases it was necessary to summon manufacturers to Washington in order the better to understand the situation and to arrive at a plan of procedure that would be mutually satisfactory. They responded cheerfully to every demand, and by close cooperation the least confusion possible was experienced.

FUEL.

The inspection of fuel and the determination of its quality are duties assigned the Bureau of Steam Engineering, and it was soon realized that it would be impracticable and undesirable to supply "Navy standard" coal to all the vessels that had been taken over for operation. Investigation was accordingly made of mines not on the acceptable list and another list prepared of mines whose product would be acceptable for auxiliary vessels of the Navy and for merchant ships manned by the Navy. This procedure was satisfactory in securing coal which, though not equal to that supplied the fighting ships, proved satisfactory for the ships to which it was assigned.

Modifications were also made in the fuel-oil specifications in order to meet the requirements of merchant ships fitted with oil-burning equipment, and in the specifications for gasoline in order to provide a high grade for aviation purposes, and at the same time, by the use of a lower grade for other purposes, to permit of greater production in order to meet the ever-increasing demand for gasoline at the front. These modifications were made in conference with the Fuel Administration and with other agencies of the Government concerned in the use of oil and gasoline.

PERSONNEL.

In accordance with the mobilization plan outlined in 1915, retired officers reported promptly at the bureau and at inspection offices before the declaration of war and took up either the duties of active officers who were ordered to sea or assisted in carrying out the increased work of those who perforce remained. As the work grew, it became necessary to add reserve officers whenever those of suitable qualifications could be secured and also to draw on the Coast Guard for officers of engineering training.

The lack of a sufficient number of qualified electrical officers who could be spared for that special work induced the bureau to recommend to the department the enrollment in the reserves of 100 graduates of technical colleges as officers for electrical duty. The details were carried out under the direction of the Bureau of Navigation and resulted in the addition to the service of a fine body of specialists, many of them relinquishing positions of great responsibility to serve in the Navy.

The demand for clerks increased in proportion to the work and could have been met in no other way than that adopted—enrollment in the reserves of female clerks, with the rating of yeoman (F). Later Congress authorized additional employees, who were supplied through the Civil Service Commission. The total number of employees engaged in clerical, messenger, and technical work in the bureau at the time of the armistice was 559, of whom 280 were yeomen (F), and it is a pleasure to testify to their industry and efficiency during the entire period of the war.

R. S. GRIFFIN, *Chief of Bureau.*

IMPROVEMENT OF INDUSTRIAL PLANTS.

In addition to the industrial plants specifically mentioned in connection with the construction of destroyers, improvements in which the Bureau of Steam Engineering was concerned were made at the following plants, either to forward

the construction of naval vessels or to facilitate the production of material or equipment for them:

Union Iron Works, San Francisco, Calif.
Columbia Steel Co., Pittsburgh, Calif.
Bath Iron Works, Bath, Me.
Bethlehem Shipbuilding Corporation, Quincy, Mass.
New York Shipbuilding Co., Camden, N. J.
Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.
Ford Motor Co., River Rouge, Mich.
Ford Motor Co., Kearney, N. J.
Lang Propeller Co., Whitestone, Long Island, N. Y.
The Falk Co., Milwaukee, Wis.

Secretary DANIELS. During the year 1913 a study was made of the needs of the Naval Establishment in the way of communications, and as a result a memorandum was submitted by the Superintendent of Radio Service in March, 1914, outlining in a general way the principles upon which the service should be administered, operated, and maintained. After the fullest discussion and comments by the commanders in chief of the various fleets and the General Board, an official board was appointed by the Secretary of the Navy on December 5, 1914, for the purpose of organizing the Radio Service along lines that would meet the requirements of the Navy both in time of war and time of peace. The report of this board, which went into very considerable detail, was submitted to the department in February, 1915. The report of the board was approved by the Secretary of the Navy on May 25, 1915, and the process of building up the organization to meet the specifications outlined in the report was proceeded with as rapidly as personnel and material permitted. A summary of the projects considered and provided for in the board's report follows. Without this communication service we could not have kept in touch. I have here one of the most illuminating stories of war service—of this new department of communications. If the Navy had done nothing but what it did in communications, it would have been an outstanding honor to the Navy for all time. Why, it handled, by leased wire—Western Union and Postal—53,000,000 messages; by high-power radio, trans-Atlantic and continental, 16,000,000 messages; and by coastal radio 1,621,000 messages; and when the war was over this service enabled Mr. Hoover to make his plans for feeding the starving people of the countries of which he was selected by the Congress of the United States to be the almoner. I will not read this, Mr. Chairman. It is a very illuminating story, and it is accompanied with a map, a blue print; and here is the naval organization of the radio.

The CHAIRMAN. Are those to be filed with the committee?

Secretary DANIELS. Yes.

The CHAIRMAN. Are they to go in the record?

Secretary DANIELS. I would like to have them go in the record. I think that was one of the greatest contributions of the Navy during the war.

(The documents referred to are here printed in the record as follows:)

- I. General statements of policy.
- II. Organization of operation, afloat and ashore:
 - A. Wave-length assignment, with explanation of system.
 - B. Communication districts.
 - C. Calling and working wave lengths.

- D. Location of stations, having due regard for protection and efficiency.
- E. Organization for administration.
- F. Communication offices.
- G. Use of land wires and cables in conjunction with radio.
- H. Alternate methods for use in case either radio or wire communication, or both, are destroyed.
- I. Organization of commercial radio stations in war.
- J. Use of radio by merchant ships in war.
- K. Use of radio by Army and Transport Service.
- L. Use of radio by Coast Guard Service.
- M. Use of radio by Naval Militia.
- N. Use of radio by State Department.
- O. Use of radio by Marine Corps.
- P. Use of underwater signaling.
- Q. Assignment of radio stations to supply yards for maintenance, and to naval-defense districts for administrative control.
- R. Temporary organization, pending adoption of service to ultimate plan.
- III. Cooperation with other departments.
- IV. Personnel:
 - A. Complements of officers, with discussion.
 - B. Post-graduate course for officers.
 - C. Radio gunners.
 - D. Complements for ships, shore stations, etc., officers, civilians, and enlisted men.
 - E. Number of enlisted men required from electrical classes.
 - F. Rotation of duty for enlisted men.
 - G. Qualifications for enlistment and advancement of enlisted men.
 - H. Training of enlisted personnel.
 - I. Nomenclature of personnel.
 - J. Personnel for submarine and air craft.
 - K. Reserve Radio Corps.
 - L. Summary.
 - V. Material:
 - A. General policy.
 - B. Equipment of stations and ships—general plan.
 - C. Changes necessary in apparatus to accommodate: (1) Temporary organization; (2) ultimate organization.
 - D. Battle equipment for ships.
 - E. Tune shifters.
 - F. Wired wireless outfits.
 - G. Break keys.
 - H. Removal of after cage masts from capital ships.
 - I. Direction finders.
 - J. Protection of magazines from danger due to radio.
 - K. Radio for air craft.
 - L. Submarine antennæ masts.
 - M. Personnel for research work.
 - N. Quarters for personnel.
 - O. Portable radio apparatus.
 - P. Division of Steam Engineering allotment in navy yards for radio work.
 - Q. Assignment of radio stations to navy yards for maintenance.
 - R. Underwater, or submarine, signal equipments.
 - S. Capacities of manufacturing companies in war time.
 - T. Buzzer sets for ships and stations.
 - U. Simultaneous sending and receiving for flagships.
 - VI. Regulation books, code books, blanks, etc.:
 - A. Radio regulations book; commercial traffic regulations.
 - B. Code books, use of code and cipher.
 - C. Radio signalling; battle signal book.
 - D. Method of reporting position by scouts.
 - E. Secrecy of codes.
 - F. Existing method for transmission to and from shore not a war method.
 - G. Changes in form for radiogram transmission.
 - H. Blanks for official messages.
 - I. Changes in Navy Regulations.
 - J. Changes and additions to Naval Instructions.

K. Text book for material.

VII. Miscellaneous:

A. Separate commander for scouts.

B. Recommendations for apportionment of long wave lengths and other matters to be brought before the next international radio conference.

C. Legislation recommended to increase the efficiency of radiotelegraphy in the United States.

The attached blue print indicates the comprehensive scope of the system outlined.

In May, 1916, a supplementary board on reorganization of this service was convened in the Navy Department, with a view to embodying such changes as appeared desirable as a result of experience gained during the year past. It had been recognized for some time that the best service could be furnished by having all naval communication activities combined under one office, and the recommendation of the supplementary board that the name of the Radio Service be changed to the Naval Communication Service, was approved by the department in 1916, and all forms of naval communications were placed under the administrative jurisdiction of the director naval communications. At the same time the office of the director naval communications was placed under the Chief of Naval Operations.

As there was no detailed plan in existence for communications within the naval districts a plan was submitted by the office of the superintendent of Radio Service, early in 1916, outlining in considerable detail the methods for communicating information within and between naval districts. This plan was approved by the department in June, 1916, and furnished the groundwork for communications in naval districts during the war.

A very valuable experiment was carried out by the Navy Department in May, 1916, in which all the naval stations within the continental limits of the United States were connected up to a central telephone switchboard in the Navy Department, and by means of which instant telephonic communication could be had between the various naval stations and the Navy Department, and also among the stations themselves. This was made possible through the assistance of the American Telephone & Telegraph Co., and its value later on, when this country declared war against Germany, was clearly proven. It was during this test that the commandant of the navy yard, Mare Island, Calif., talked by telephone to the commanding officer of the battleship *New Hampshire*, which was then at sea off the Virginia Capes. The commandant's remarks came by long-distance telephone from Mare Island to Arlington, where the transmitting station was installed, and from there out to the *New Hampshire* off the Virginia Capes. The greatest value derived from this experiment, aside from the knowledge that such rapid communication by telephone was available to the Navy Department, was the fact that all of the apparatus necessary was specially marked and could be placed in operating condition on 24 hours' notice. As a result, the interior communications of the country, so far as naval needs were concerned were, on the outbreak of the war, in excellent operating condition, and made the task of the Navy Department, in communicating its instructions and orders to the various naval stations, a comparatively simple one at the time of the declaration of war.

On January 1, 1917, the naval communication service operated 55 radio stations, distributed along the coast of the United States and its possessions. Naval vessels were equipped so that they could receive only one message at a time. Not all of the American merchant vessels were equipped with radio apparatus, some were equipped with poorly designed radio apparatus, and none of their radio operators were proficient in the procedure of communications during war. The Navy had only 1,031 radio operators in its service.

The radio technical equipment of the Navy was as good as any in general use in the United States at the time, but the demands for communication proved that the technical equipment would have to be increased and improved to conduct all of the necessary communication demanded in time of war.

At the beginning of the war the demands for quick communication increased by leaps and bounds. It was found necessary to communicate with ships in all parts of the world, while at the same time to maintain long-distance communications between the Navy Department and our outlying possessions and expeditionary forces. It was necessary to maintain continuous and rapid communication between the Navy Department and Europe, South America,

Central America, West Indies, Pacific coast, Hawaiian Islands, Guam, Tutuila, and the Far East. The most important centers of communications were at Cavite, P. I., Hawaiian Islands, Canal Zone, Washington, D. C., and the capitals of the allied nations in Europe.

To meet the demands for communication the Navy's facilities were greatly and rapidly increased, and means were provided for collecting and disseminating information to every part of the coast and to naval vessels in Europe, South America, and the Far East.

The Navy took over and operated 59 commercial stations. At the same time the several privately owned stations were closed, including all the stations operated by the amateurs, which were not necessary nor desirable for use during the war. Sixty-seven land radio stations were built by the Navy during the war, all equipped with the best apparatus, this more than doubling its radio facilities on shore.

Naval vessels were equipped with improved apparatus, so that when the armistice was signed battleships were able to receive four messages simultaneously and transmit three. The commander in chief of the fleet could talk to the captains of vessels in the fleet, while at the same time the various ships of the fleet could communicate with one another. In addition, and at the same time, airplanes could communicate with their respective battleship units.

The Navy Department equipped all American merchant vessels with modern apparatus and furnished operators for them, so that these merchant ships could receive messages at any time of the day and transmit messages at long distances in case of distress.

The Navy had to train most of its radio men, because the radio amateurs in this country were soon incorporated in the Army and Navy. These operators were trained at Harvard. In June, 1917, there were 350 students under instruction. When the armistice was signed there were 3,400 men under instruction, and operators were being graduated at the rate of about 200 a week. A total of about 7,000 operators completed their training. In addition to the radio operators it was necessary to train officers for communication duties on board the ships. At the time the armistice was signed each ship of the Navy had a communication officer, and each merchant ship had a chief petty officer, who performed communication duties and therefore relieved the master of the ship from a very vexatious duty.

The year before the war there was handled approximately 125,000 dispatches from the Navy Department. These dispatches averaged about 25 words each.

From April 6, 1918, to April 6, 1919, approximately 1,000,000 dispatches, of an average of about 30 words each, were handled from the Navy Department alone. Some of these dispatches, on account of the necessity of broadcasting, were sent twice in order to insure their delivery.

As it was assumed that the use of radio apparatus by ships at sea enabled German submarines to ascertain more or less accurately the movements of such ships, communication by radio from merchant ships was discontinued except in case of emergency. Men of war were cautioned not to use their radio apparatus unless necessary. However, it was very necessary that information should be received on shore regarding the movements of the enemy, and that the consequent orders to ships at sea should be transmitted expeditiously. Therefore, in order to direct the movements of convoys, and to transmit information to naval vessels regarding the enemy, and to issue orders to both merchant ships and naval vessels, a comprehensive system of transmission from shore was organized with the view of making it necessary for ships at sea to use their radio apparatus.

All merchant vessels listened for their orders from certain designated shore stations during certain hours of the day. These messages were sent by high-power and low-power stations, depending on the distance of the ship from shore. Naval vessels intercepted messages from shore stations at all hours of the day. In order to send a message to a naval vessel at sea it was necessary only to transmit from certain shore stations on a designated wave length. It soon became evident that this was a very sure means of communication. Many times 50 or 60 messages were transmitted to sea simultaneously, all destined for different classes of vessels, and they were received by ships in accordance with the plan.

The foregoing system demonstrated that ships at sea could be warned of mines and submarines and their movements directed without the necessity of their

using their own radio apparatus. The system was automatic to such an extent that it was almost certain that a vessel could be reached at any time.

In order that errors in this system might be eliminated, and in order that the Navy Department might be informed of the movements of vessels, there was established a shipping information service. A confidential bulletin was published showing the movements of all United States vessels and as many foreign vessels as could be obtained. This information was collected from all the important ports of the world and the data printed in a booklet. This service grew to such an extent that the booklet now contains the names of approximately 12,000 vessels, their arrivals and departures, character of cargo, and destinations, and is of much value to shipping and business interests. It is the present plan of the naval communication service to continue this publication until Congress makes other disposition for its publication.

In order to check the radio work of merchant vessels, a comprehensive system of inspection was organized, both in the United States and abroad. Every merchant vessel that came into port received a thorough inspection of its radio apparatus, and the radio operators were examined and thoroughly instructed. Any mistake indicated in the log books was investigated and the operator instructed as to the correct method of handling such cases.

Besides inspections, the Navy maintained a comprehensive system, both at home and abroad, of radio repair stations. Any radio apparatus aboard ship which had broken down was repaired when the ship came into port.

It soon became evident that if the commander of the United States forces in Europe was to maintain close touch with all of his forces it would be necessary to establish and control a complete system in Europe. To this end cables were laid and land wires and radio stations constructed in France, England, and in Italy. The Navy used a great many of these land wires and cables that were constructed by the Signal Corps of the Army. Close cooperation was maintained with the allied communication service with a view to utilizing their systems whenever possible and with the view to avoiding duplication of effort. During the war it was found necessary to maintain radio communication between the United States and our naval and military forces in Europe and in other parts of the world. In October, 1917, the allied military and naval officials had a conference to determine the best methods of operations that were to be used in maintaining communication between the United States and Europe in case the cables were either cut by the enemy or otherwise placed out of commission.

It was decided that the United States would use the radio stations at New Brunswick, Annapolis, Tuckerton, and Sayville for transmission purposes; but at this time none of these stations was in reliable communication with Europe at all times of the day and year. Therefore, it was necessary to increase the power of Tuckerton and Sayville and to place more modern apparatus in the New Brunswick. The radio station at Annapolis had not been completed, and orders were given to rush the construction. There were only two trans-Atlantic receiving stations, viz, one at Chatham, Mass., and one at Belmar, N. J.

In Europe the only radio stations available for use in transoceanic communication were those at Rome, Italy; Lyons, France; and Carnarvon, Wales. Of these stations, the one at Lyons, France, was the only one able to communicate satisfactorily with the United States.

None of these stations was equipped with high-speed apparatus, and none was equipped in such a way as to avoid intentional interference from radio stations in Germany, and the systems of operation and control were not such that large volumes of traffic could be handled.

At first it was decided that all messages from Europe destined to the United States would be sent during certain hours of the day from Lyons, and, if possible, from Rome and Carnarvon. Messages from the United States destined for Europe were to be transmitted from New Brunswick, Sayville, Tuckerton, and as soon as possible from Annapolis during the remaining hours of the day. In the beginning this system was capable of handling only a comparatively few important messages. Later, when it became evident that the Germans were making some attempt to cut cables off the coast of the United States, it was decided to erect another high-power station in France. In the meantime, improvements were being made at Lyons and Rome. The key was in the Navy Department for transmission from Sayville, Tuckerton, New Brunswick, and Annapolis.

New improvements in organization and operating methods were made both in the United States and in Europe, resulting in a centralized control of United States high-power radio stations from the Navy Department. A receiving station was constructed at Bar Harbor, Me., which proved to be one of the best receiving stations in the United States. The receiving stations at Chatham and Belmar were not used, as they were not necessary. The power of the radio stations at Tuckerton, Sayville, and New Brunswick had been increased. At the time the armistice was signed the United States system was capable of handling several thousand words per hour, and the whole transoceanic system was able to transmit and receive messages simultaneously without fear of intentional interference from Germany's high-power radio stations. Also, just before the armistice was signed, experiments in high-speed transmitting and photographic reception had begun. Had it been necessary the trans-Atlantic radio service would have been capable of handling all of the Government traffic between Europe and the United States.

When the United States entered the war it was noticed that the Central Powers were conducting a comprehensive scheme of propaganda by wireless. Counteracting this were the systems operating from France and England. The United States had no means of distributing American news throughout the world. Therefore it was decided to use the transoceanic system of the Navy to distribute news of a reliable nature from the United States. The trans-Atlantic stations transmitted this press news to Europe and South America. Naval vessels in South America received the press and distributed it to the local papers in those countries. The European news was distributed by Admiral Sims's headquarters and redistributed to the various capitals of Europe, including points in Russia. The Central American news was broadcasted from the Navy's high-power station in the Canal Zone and was received in the northern part of South America and Central America and Mexico. News was distributed to the Philippines, Japan, China, and Siberia through the Navy's trans-Pacific high-power stations. These reports were received in the Philippines, Shanghai, Vladivostok, and Japan and distributed to the local papers in those countries.

During the war it was found exceedingly difficult to locate persons in the United States who were using radio apparatus unlawfully. Also, when the German submarines began operations off the United States in June, 1918, it was found that although the radio signals of the submarines were intercepted by naval radio stations along the coast, there were no efficient devices by which the exact location of the submarines could be ascertained from their radio signals.

It was found that enemy submarines used their radio apparatus promiscuously, and that they operated in pairs in order that they could fix the position of their prey by means of bearings. Such procedure necessitated the use of radio.

In order to counteract the foregoing situation, the Navy developed a comprehensive system of radio compasses, by means of which the bearing or direction of the enemy's signals could be obtained. Also all signals were copied, so that every time a message was sent the Navy could trace it. Shortly afterwards it was noted that the submarines did not use their radio, and it is believed that the Navy's shore radio compass system robbed the enemy of a vital weapon, as the radio compass not only made it dangerous for the enemy to use their radio for communication purposes between one another but also prevented them from using it for sending decoy distress messages.

Later the Secretary of the Navy, "in a plan to hasten the progress of troopships," authorized the construction of 15 additional radio-compass stations, making a total of 34 on the Atlantic and Gulf coasts. These radio-compass stations were at harbor entrances and enabled ships at sea to enter port without consequent delays due to thick weather and fog. This was a very important item in the war, as every minute counted in a ship's voyage.

After the armistice was signed, the Secretary authorized the construction of 24 more radio-compass stations which made a grand total of 58 in the United States, and which are to be used as aids to navigation during time of peace.

The technical bureaus of the Navy Department kept pace with the operating departments in their advance in the art of radio communication, and in cooperation with the radio engineers of the country accomplished some remarkable developments in radio during the war.

Efficiency in high-power transmission was increased from 30 to 90 per cent. Not only was greater efficiency arrived at with lower cost, but the power of transmission was increased. For example, the radio station at Bordeaux,

France, which is being constructed under the auspices of the Navy Department, has an input of 1,000 kilowatts. Its range is estimated to be 12,000 miles. It has eight 820-foot towers.

There was an increase in speed of transmission from about 30 words a minute to 100 words a minute in actual practice, and to about 300 words a minute in pre-arranged tests. One of the difficulties in high-power stations was the sleet on the antennæ. Methods have been arrived at by which sleet is now prevented from accumulating on the wires of the antennæ.

The valve has been developed from a nonoscillating detector to an oscillating transmitter. It is possible to receive radio signals by the boat method and to transmit signals from the valves at comparatively long distances. The valve is used also in the transmission of speech and is very efficient for this purpose.

Another feature of valve transmission is that it permits of very sharp tuning, which in turn permits simultaneous transmissions from a great many stations. It is believed that it will be developed in the future to such an extent that it will replace most of the existing low-power transmitters.

Another feature of the valve is that its life has increased from 5 hours to over 5,000 hours, which is a very important item in the expense.

Great improvements have been made in receiving apparatus in that they are more selective, and directive receiving has increased in efficiency from 0 to 75 per cent. The old type of overhead antenna is being rapidly replaced by the use of balanced loops and underground wires, radio changers, and low horizontal wiring.

It is now possible to receive signals on submarines while submerged at depths of 20 feet from shore stations, aircraft overhead, and ships afloat. This system was used to advantage in directing our submarines off our coast when they were hunting for enemy submarines.

Another improvement has been made in the radio compass, which was used at first for detecting the positions of enemy submarines, but is now developed into an aid for navigation. With properly trained personnel the Navy is now able to give ships their positions without any large error. This will be a great boon to our merchant marine, because it eliminates the delays caused by fog and thick weather, besides making navigation generally more safe along the coast.

To illustrate how a naval communication district acts, I should like to take, as an example, the Third Naval District, which extends from Rhode Island to Barnegat Inlet, and in which there are eight coastal radio stations which are located as follows: Montauk, L. I.; Fire Island, L. I.; Rockaway Beach, L. I.; Sea Gate, N. Y.; Bush Terminal, N. Y.; Navy Yard, N. Y.; Mantoloking, N. J.; and New London, Conn. There are also five radio compass stations located as follows: Montauk Point, L. I.; Fire Island, L. I.; Rockaway Beach, L. I.; Sandy Hook, N. J.; and Mantoloking, N. J. These radio and compass stations are all controlled from one Central Control Station, located at No. 44 Whitehall Street, New York City, at which place are also the offices of the district communication superintendent. Direct wires from each of these stations lead into the Central Control Station, and by means of a plug-board arrangement similar in type to that used by the telephone companies, any one of these stations may be used as a transmitter by the operator on watch at the control station.

The control station is divided into a number of booths which are magnetically shielded from one another and which contain receiving apparatus of the most up-to-date type. Each booth is given a wave length, which operator on watch must guard. There is no transmitting apparatus at this control station, all transmitting being done by means of distant control through one of the other stations mentioned above. Therefore the operator on watch at 600 meters receives a call and desires to answer, he promptly plugs in on a wire to any station he may decide to use and transmits via that station. He is listening all the time to what he is sending and should he hear a distress signal, he could instantly stop and give his attention to the distress call.

A chief electrician (radio) is on duty at this control station as supervisor of traffic. On his desk he has a receiver which enables him to listen in and keep check on the traffic being handled on the various wave lengths, and, from time to time, gives orders to the various operators and stations so as to avoid interferences. Such a system of supervision was found necessary in order to overcome some of the difficulties brought about by the large increase in radio traffic about the port of New York. The excellent manner in which this

system functions locally about the port of New York is another illustration of the necessity of radio supervision by one central controlling agency.

All the stations in the Third Naval District, however, are not at all times controlled from the Central Control Station. If traffic warrants it, some outlying station, such as Montauk or Fire Island, is given orders by the supervising electrician to handle traffic independently. At such time, the outlying stations are practically acting as agents for the control station.

The great advantage, besides regulating radio traffic and cutting down the amount of interference, that should any of the stations in the district, or the control station, hear a distress call, or any other emergency arises, the control station can immediately notify all stations to stop sending, which will leave the air clear so that the emergency may be taken care of. The ability to stop all stations in the district instantly is an absolute necessity in time of war and proved itself of much value during the time the German submarines were active along the American coast.

The radio compass stations are controlled in a manner similar to the radio transmitting stations in the third naval district. Each compass station in the district is connected with the compass control station at No. 44 Whitehall Street, New York City (which is in the same room with the radio control station), by means of direct wires.

I want to call attention to the flexibility of the naval communication service and cite as an instance the flight of the *NC-4*. A message was transmitted from the Navy Department to the plane during its trans-Atlantic flight, a reply was received from the plane, and this reply was transmitted to London, Paris, San Francisco, and the Canal Zone, and an acknowledgment received from those stations, all within three minutes of the time of beginning the first transmission to the plane from the Navy Department. Of course, everyone was very much interested in the flight and the stations were all very keen to give the very best service, but this remarkably rapid operation was even a little better than we had anticipated.

During the peace conference the naval communication service handled all of the radio communication for the American delegation. During the past summer, at the request of the American Relief Association, the commander of our naval forces in European waters put the naval communication service personnel on land lines, handling the Relief Association messages throughout certain countries in Europe, and they are now handling that service and will continue to handle it until peace is finally proclaimed. This involves a complete communication system in central Europe, and gives the Navy, as well as the American Relief Association, a communication system between its London headquarters and Paris, Germany, Poland, Belgium, Italy, Austria-Hungary, and Turkey. (See attached chart for details of naval communication service circuits in Europe.)

When the Radio Service was established in 1913, through an agreement among the various Government departments interested the Naval Communication Service was designated to handle the international radio accounting between foreign shore stations and United States merchant vessels.

The Communication Office of the Navy Department has handled during the last year the following messages:

Sent to Europe by Navy Department.....	16, 910
Sent to Europe by other departments.....	3, 645
Sent to home waters by Operations.....	22, 870
Sent to home waters by bureaus and other departments.....	351, 516

Total	394, 941
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Received from Europe by Navy Department for Navy.....	23, 084
Received from Europe by Navy Department for other departments.....	3, 893
Received from home waters to Operations.....	49, 950
Received from home waters to bureaus and other departments.....	717, 313

Total	794, 190
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Grand total.....	1, 189, 131
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Grand total number words at 60 words per dispatch.....	71, 347, 860
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The foregoing total was handled as follows:

By coastal radio.....	1,621,542
By high-power radio, trans-Atlantic and continental.....	16,215,423
By leased wire, Western Union and Postal.....	53,500,895

The above figures are exact, except the bureau dispatches, which are approximate and are based on the daily ratio of bureau dispatches to others during the last five months since an accurate record has been kept.

You will note that there were approximately 71,350,000 words handled by the Naval Communication Service. The high-power radio handled approximately 16,000,000. The leased wires handled approximately 53,000,000, and the coastal stations handled about 1,500,000.

During the period of demobilization a very large commercial business was done with returning transports, some of the larger transports handling 1,500 messages in a single month, the men wishing to send messages to their friends at home. In order to encourage this use of radio by returning troops, free service was accorded military personnel and civilian employees of the Government in so far as the ship's sending charges were concerned. Of course, this served to increase the traffic and afforded the men a chance to communicate with their families.

During the period of the war, and until April 1, 1919, practically no revenue was obtained from traffic with foreign ships. This was due to the fact that up until that time no personal messages were allowed, and allied countries, with one exception, had agreed to handle messages for allied ships free of cost as regards shore-station tolls. Prewar charges were placed in effect for United States shore stations on April 1, 1919, and foreign ships were charged regular shore-station tolls.

Owing to the congestion of the Pacific cables the Naval Communication Service reopened the trans-Pacific circuit to Japan and the Philippines on December 19, 1918. This service, so far as Japan was concerned, took the place of the service inaugurated by the Marconi Co., about three months previous to the outbreak of the war, the Navy carrying out the agreement as to tolls between San Francisco, Pearl Harbor, and Japan. Owing to the large volume of Government business this traffic was restricted to full-rate business only.

In November, 1918, the telegraph and telephone division was in charge of a lieutenant commander, with five officers, twelve chief petty officers, and an enlisted personnel of about 130. The telegraph system of the Navy Department at that time included wires from Galveston, Tex., to Bar Harbor, Me. The leased telephone wires of the Navy Department extended from Norfolk, Va., to Portsmouth, N. H., there being seven private telephones from the department to New York alone. The telegraph office of the Navy Department was handling 4,000 messages a day, and the Navy telephone exchange was handling 18,000 telephone calls per day.

At the time of the armistice, the Daily Shipping Bulletin, referred to previously, was being printed on a hand press, and about 300 copies a day were being distributed. It was very roughly made up and had not assumed any permanent form. The personnel consisted of three officers and about 100 enlisted men.

By July 1, 1919, the circulation of the Daily Shipping Bulletin had grown to nearly 2,000 copies a day. It was being printed on a power press and had assumed a standard form. Of its total circulation, nearly 1,400 were commercial firms, such as shipping companies, marine underwriters, ship brokers, exporters and importers, press associations, etc. The bulletin contained the name of 12,500 ships with news of their latest movements and the record of nationality, register, tonnage, and cargo. The popular demand for the bulletin is growing daily and its success as a Government activity is assured.

During the war the censorship of all cables was controlled from the director naval communications office through the following branch offices:

	Personnel.	
	Nov. 11, 1918.	June 30, 1919.
Brasil.....	9	
Guam.....	5	
Guantanamo Bay.....	3	
Galveston.....	17	
Honolulu.....	17	
Cape Haitien.....	1	
Key West.....	9	
Lisbon.....	1	
New Orleans.....	12	
New York.....	780	78
Paris.....	1	
Ponce.....	3	
Panama.....	8	
San Antonio.....	7	
San Domingo and Puerta Plata.....	5	
San Diego.....	1	
San Juan.....	9	
San Francisco.....	151	
St. Thomas.....	3	
Seattle.....	5	
London.....	1	
Chief cable censor.....	103	4

On April 18, 1919, by Executive order, the censorship on all cables was removed from all messages except those addressed to or from German territory. This act greatly reduced the activities of the section, and all branch offices except Washington and New York were closed. On July 23, 1919, all censorship of cables was removed and this section rapidly completed its most important duties.

The naval radio stations placed in commission since December 31, 1913, by years, are shown in the following list:

In 1914: Port Royal, S. C., and Cordova, Alaska.

In 1915: Indian Head, Md.; Darien, Canal Zone; Tutuila, Samoa, and Managua, Nicaragua.

In 1916: Point Isabel, Tex.; San Diego-Chollas Heights, Calif.; Pearl Harbor, Hawaii.

In 1917: Navassa Island; St. Thomas, V. I.; St. Croix, V. L.; Buffalo, N. Y.; Alpena, Mich.; Marshfield, Oreg.; Vladivostok, Siberia.

In 1919: Sea Wall, Me.; Chatham, Mass. (Air); Melville, R. I.; Cayey, Porto Rico; Port au Prince, Haiti; Cape Henlopen, Del.; Blackistone Island, Md.; Dahlgren, Va.; Wilmington, N. C.; Detroit, Mich.; Puerto Obaldia, R. P.; La Palma, R. P.; Cape Mala, R. P.; Coco Solo (Air), Canal Zone; Wailupe, Oahu, Hawaii.

In 1920: San Diego, North Island (Air), Calif.; San Pedro, Calif.; Westport, Wash.; Los Banos, Philippine Islands.

The following stations were acquired by purchase from the Marconi and Federal companies during 1918:

Boston (Filene), Mass.; Siasconset, Mass.; Sea Gate, N. Y.; Cape May, N. J.; Baltimore, Md.; Virginia Beach, Va.; Cape Hatteras, N. C.; Savannah, Ga.; Jacksonville, Fla.; Miami, Fla.; Tampa, Fla.; Galveston, Tex.; Port Arthur, Tex.; Mobile, Ala.; Chicago, Ill.; Frankfort, Ill.; Milwaukee, Wis.; Calumet, Mich.; Duluth, Minn.; Ludington, Mich.; Manitowoc, Mich.; Cleveland, Ohio; Mackinac Island, Mich.; Manistique, Mich.; Grand Haven, Mich.; Inglewood, Calif.; Avalon, Calif.; San Francisco-Hillcrest, Calif.; San Francisco Beach, Calif.; Seattle, Wash.; Astoria, Oreg.; Ketchikan, Alaska; Juneau, Alaska; Heela, Hawaii, Hawaiian Territory; Sayville, L. I., N. Y. The last named is an ex-German station.

The following data is submitted in connection with naval radio compass stations:

Cross Island, Me., completed December, 1918.

Bar Harbor, Me., completed December, 1918.

Samiscope Island, Me., completed December, 1918.

Appledore Island, Me., completed December, 1918.

Gloucester, Mass., completed January, 1919.

Deer Island, Mass., completed January, 1919.

Fourth Cliff, Mass., under construction.
 North Truro, Mass., completed January, 1919.
 Chatham, Mass., under construction.
 Surfside, Nantucket, Mass., completed October, 1918.
 Princes Neck, R. I., completed October, 1918.
 Watch Hill, R. I., completed October, 1918.
 Montauk Point, L. I., N. Y., completed March, 1919.
 Fire Island, N. Y., completed January, 1919.
 Rockaway Beach, N. Y., completed January, 1919.
 Sandy Hook, N. J., completed January, 1919.
 Mantoloking, N. J., completed January, 1919.
 Cape May, N. J., completed December, 1918.
 Cape Henlopen, Del., completed December, 1918.
 Bethany Beach, Del., completed December, 1918.
 Hog Island, Pa., completed December, 1918.
 Smith Island, Va., under construction.
 Cape Henry, Va., completed February, 1919.
 Cape Hatteras, N. C., completed February, 1919.
 Cape Lookout, N. C., completed February, 1919.
 North Island, S. C., completed March, 1919.
 Morris Island, S. C., completed April, 1919.
 Jupiter Inlet, Fla., under construction.
 Pass a'Loutre, La., completed April, 1920.
 Burrwood, La., completed April, 1920.
 Grande Island, La., completed April, 1920.
 Smith Island, Wash., under construction.
 Cattle Point, San Juan Island, Wash., under construction.
 New Dungeness, Wash., under construction.
 Slip Point, Wash., under construction.
 Tatoosh Yard, Wash., under construction.
 Westport, Grays Harbor, Wash., under construction.
 Fort Stevens, Oreg., completed April, 1920.
 Empire, Oreg., completed April, 1920.
 Eureka, Calif., under construction.
 Point Reyes, Calif., completed April, 1920.
 Farallon Island, Calif., completed April, 1920.
 Bird Island, Calif., under construction.
 Point Montara, Calif., under construction.
 Point Arguello, Calif., under construction.
 Point Hueneme, Calif., under construction.
 Point Fermin, Calif., under construction.
 Avalon, Santa Catalina Island, Calif., completed April, 1920.
 Point Loma, Calif., under construction.
 Imperial Beach, Calif., completed April, 1920.

NOTE.—Seventeen stations are now in commission. Eighteen stations are out of commission due to lack of personnel. Fifteen stations are under construction.

The following list shows the number of light vessel radio stations operated by the Navy:

Light Vessel No.—		Light Vessel No.—	
Handkerchief Shoals	3	Fire Island	68
Stone Horse Shoals	5	Ambrose	87
Brenton Reef	39	Scotland	11
Vineyard Sound	41	Cornfield Point	48
Pollock Rip	47	Fenwick Shoals	52
Pollock Rip Slue	73	Five Fathom Bank	79
Relief	86	Overfalls	69
South Shoals	90	North East End	44
Great Round Shoals	96	Tail of Horseshoe	46
Nantucket Shoals	85	Relief	49
Relief	4	Diamond Shoals	72
Hen and Chickens	42	Cape Lookout	80
Boston	54	Winter Quarter Shoals	91
Portland	74	Cape Charles	101
Cross Rip Slue	20	Relief	53

	Light Vessel No.—		Light Vessel No.—
Brunswick	84	Umatilla Reef	67
Frying Pan Shoals	94	Relief	78
Martons Industry	1	Relief	16
Charleston	34	Ram Island Reef	23
Heald Bank	81	Columbia River	88
South West Pass	102	Relief	92
Swift Sure Bank	93		

The following is a summary of the naval radio stations, both ship and shore: 585 naval ship stations, 119 coastal shore stations, 29 radio compass stations, 48 light vessel stations, 11 high-power stations.

The location of the stations comprising the Navy's chain of high-power stations is indicated below:

Cavite, Philippine Islands; Guam, Marianas; Pearl Harbor, Hawaii; Heeia, Hawaii; San Francisco, Calif.; San Diego, Calif.; Sayville, L. I., N. Y.; Annapolis, Md.; Arlington, Va.; Darien, Canal Zone; Cayey, P. R.

In order to provide facilities for communication between the Atlantic, Pacific, and Asiatic Fleets and the Department, it was necessary to establish radio stations in all our outlying possessions and territory under control of the United States, in the Philippines, Tutuila, Guam, Hawaiian Islands, Virgin Islands, Haiti, Porto Rico, Cuba, and Alaska, as well as along our Atlantic, Pacific, and Gulf coasts and along the Great Lakes.

The cost of the 11 naval high-power stations was approximately \$4,000,000, which figure includes the cost of the Annapolis station which was established as a war emergency when it was feared the cables would be cut, but does not include the cost of the Sayville, South San Francisco, and Heeia stations, which were already established and acquired by the Navy during the war.

The present material view of the 792 naval stations, including equipment on naval vessels, light vessels, and the properties comprising the shore radio stations is approximately \$20,000,000.

The cost of the radio service, including experimental work, improvements, new construction, and upkeep of ship and shore stations, is approximately \$2,500,000 annually.

This expenditure is offset to a great extent by the tolls received from commercial messages handled by the naval stations, which receipts are turned into the Treasury of the United States as "miscellaneous receipts."

The Philippine Islands (Cavite) and Marianas (Guam) stations communicate directly across the Pacific with the Hawaiian Islands stations (Pearl Harbor and Heeia), which latter stations communicate directly with the California stations (South San Francisco and San Diego), which latter stations communicate directly with Washington. The Canal Zone (Darien) and West Indies (Cayey) stations communicate directly with Washington. The Annapolis and Sayville stations communicate directly with European stations in England, France, Italy, and Germany, and such other stations as may be desirable. The Radio, Virginia (Arlington) station communicates with all points in the United States as desired, clearing the traffic which the semihigh-power stations, one in each naval district, collect from the coastal stations and ships at sea.

Vessels of the Navy are equipped with radio equipment ranging in power from 30 kilowatts, on capital ships to $\frac{1}{2}$ kilowatt on the submarine chasers and as a result of this, taken in conjunction with the Navy's chain of high power, medium power, and coastal stations, the department is enabled to maintain continuous communication with the three fleets and their auxiliaries in all waters independently of any other systems of communication.

In connection with previous remarks concerning the difficulty encountered by the Navy in its endeavors to secure the most efficient radio equipment of the latest type, a case in point is mentioned.

Prior to the year 1912 the radio equipment used in the naval service consisted of spark or intermittent wave transmitters similar to the equipment developed by Marconi. Serious difficulty was encountered in the Navy's endeavors to do long-distance work with this type of equipment and it was not considered suitable for installation in any of the stations which were to comprise the Navy's chain of high-power stations, the establishment of which was then being considered. A new type of equipment, known as the Poulsen arc or continuous wave transmitter, was on the market, this system having been developed in Denmark, the patent rights in the United States having been acquired by the Federal Telegraph Co. of San Francisco. Notwithstanding the opposition en-

countered from the manufacturers of spark equipment, which was only to be expected, the Navy arranged with the Federal Telegraph Co. to install one of their medium-power arc transmitters in the Arlington station, with the result that reliable daylight communications were had between Arlington and the Federal Co.'s South San Francisco station.

This clearly demonstrates that the arc equipment was vastly superior to the spark type of equipment and a contract was given the Federal Co. for a 100-kilowatt arc transmitter for the new Darien (Canal Zone) station and the other stations comprising the Navy's chain of high-power stations were subsequently established and equipped with arc sets, as were also the medium-power stations located one in each naval district.

As a result, reliable communication facilities have been provided whereby the Navy Department can keep in constant touch with all units of the fleets and reliable means of communication with our outlying possessions are available to the Government, independently of the cable systems.

An improvement on the arc transmitter has very recently appeared on the market, namely, the Alexanderson alternator, manufactured by the General Electric Co. Two of these high-frequency alternators were installed in the New Brunswick (Marconi) station after the station was taken over by the Navy for war purposes, and this station was subsequently used to communicate with England, France, and Italy during the war, President Wilson's reply to the German Government's request for an armistice having been transmitted from this station to the radio station at Nauen, Germany, direct.

In addition to radiotelegraph communications sent from the New Brunswick station to foreign countries during the war, the alternators installed in this station were utilized for radiotelephone communications with the U. S. S. *George Washington* when that vessel was transporting President Wilson to and from France.

Great strides were made in the advancement of the radio art after the United States entered the war, some of the outstanding features being indicated below:

The design and development of the radio compass for use as an aid to navigation, detection of enemy craft, and stations.

The development of arc transmitters of 1,000-kilowatt capacity for the new high-power stations projected to replace the cables if necessary; 500 kilowatts having previously been considered the limit in power of these sets. The development of this equipment was effected in conjunction with the Federal Telegraph Co. Arrangements were practically completed to establish adequate facilities for communications with our allies in the event of all the cables being cut by German submarines, when the armistice was signed. This project was then abandoned. The establishment of a 1,000-kilowatt station at Croix d'Hins, France, had been previously undertaken by the Navy, however, and this station is now nearing completion. The French Government will pay all expenses incident to the establishment of this station.

DESIGN AND DEVELOPMENT OF SUITABLE RADIOEQUIPMENT FOR AIRCRAFT.

As it was essential that all aircraft should be equipped with radio, the Navy undertook the design and developed suitable radiotelegraph, radiotelephone, and radiocompass equipment. Great assistance was given by the various radio commercial companies in this connection, particularly by the Western Electric Co. in connection with radiotelephones. The early results obtained were not encouraging, as the distance for which communication could be carried on averaged only about 25 miles.

The equipment was gradually developed, however, so that communications both radiotelegraph and radiotelephone could be carried on between planes and with the ground for several hundred miles. The development of the radio compass for aircraft was of the greatest importance, as it enabled the planes to navigate by this means when no other method could be used. The Navy seaplane NC-4 in its flight across the Atlantic was in continuous communication with ship and shore stations during the entire journey.

Many other notable advances in the radio art were accomplished during the war, including the development of reception on submarines, reception of radio signals on shore with antennae buried in the ground, and general improvement in the type of transmitting and receiving equipment in general.

In addition to the heavy demands made on the Naval Communication Service by the entrance of the United States into the war, including the increased

number of vessels of the fleets, including new destroyers, submarine chasers, etc., and the taking over of all the commercial radio companies' shore stations, it was also necessary to make all provisions for the design, purchase, installation, and maintenance of radio equipments on all vessels of the United States Shipping Board, as that organization was not prepared to handle the work owing to its highly technical nature. The Navy has installed radio equipment on approximately 1,500 Shipping Board vessels to date.

After the United States entered the war the commercial radio companies' stations were all turned over to the Navy in accordance with the act of Congress and the President's proclamation, and it was necessary to assume the entire burden of the maintenance and operation of these stations. All of the various branches of the Government—Coast Guard, Lighthouse Service, and Shipping Board—immediately turned to the Navy for their ship radio service, and these responsibilities were met and successfully carried on during the war, without complaint of insufficient or inadequate service from any quarter.

The Naval Communication Service is in a position to meet all the demands that are likely to be made upon it and is prepared to carry on communications with all of our outlying possessions as well as with vessels of the fleets and the American merchant marine and other vessels at sea. It is confidently believed that the Navy's chain of high-power stations can handle all traffic with our outlying possessions that is now handled by the cables, the majority of which latter are foreign owned, and it is believed that these facilities will have a tendency not only to prevent an increase in these rates but to force a reduction thereof.

W. H. BULLARD.

Secretary DANIELS. Mr. Chairman, bringing nearly half a million new men into the Navy during the World War required the best sanitary methods and the best medical skill and care. In no duty was the Navy better prepared than in this important duty. The able Surgeon General had looked ahead, and the Navy lacked nothing that wise foresight, ability, and diligence could provide for the health of the naval personnel.

The story of how the Medical Department measured up to its high responsibility is given in a statement by Admiral William C. Braisted, Surgeon General of the Navy.

I present that statement for the record.

(The statement referred to is here printed in the record in full, as follows:)

PREPAREDNESS OF THE MEDICAL DEPARTMENT OF THE NAVY FOR WAR AND MEDICAL DEPARTMENT ACTIVITIES DURING THE WORLD WAR.

[By Rear Admiral William C. Braisted, Medical Corps, United States Navy, Surgeon General of the Navy.]

The work of the Medical Department of the Navy in the World War has so often been the subject of favorable comment by experts and by others who were brought intimately into a position to observe its activities that it would seem permissible at this time not to undertake to demonstrate that the department was prepared for war, but rather to review briefly the story of the constant thought which was and must be given in time of peace in the everyday affairs of this branch of the naval service to the possibility of great and sudden emergency. Such a review will serve a useful purpose if it leads to a more general realization of the vast amount of work, much of it requiring years of patient labor and continual training of personnel that is necessary if the organization of the Medical Department is to withstand without strain and disastrous delay the initial violent efforts to mobilize the Navy for immediate action. The dangers of disease and the likelihood of great loss of life are unavoidable concomitants of a sudden outbreak of war.

Early in 1918 a careful investigation of the conduct of the Navy in war was made by a subcommittee of the House Committee on Naval Affairs. The report of that committee reads in part as follows:

"The first battle of the war, that against disease, was fought and won by the Medical Department of the Navy. After diplomatic relations with Germany

were broken in February, 1917, recruits, we find, streamed into the service in increasing numbers, and in April there was grave danger that the overwhelming influx of volunteers would overtax all training stations and receiving-ship facilities and bring disaster to the Navy at the very beginning of the war by the introduction and spread of epidemic diseases which unfortunately were widely prevalent throughout the country at that time. In spite of all the difficulties in the way of rapid expansion and the sudden necessity for the training of new medical personnel and Hospital Corps men, the health of the Navy has been even better than in peace times.

"The Medical Department facilities have undergone tremendous development everywhere. The excellent and finely equipped base hospitals, which were built before the war, have been greatly expanded with a speed which could not have been attained if the organization of the Medical Department as a whole had not been carefully thought out long before war came and plans perfected for the immediate enlargement of base hospitals and the construction of emergency hospitals of the finest type wherever necessary. The total bed capacity of naval hospitals was thus increased in period of a few months from 3,800 to more than 15,000 beds. The mothers of the country can rest assured that in these hospitals their sons will receive excellent care and nursing and the most skilled treatment that modern medical and surgical knowledge permits. The Navy Nurse Corps, comprising women of the highest type in the nursing profession has been increased to more than 700.

"On board ship and at naval stations the health of the men is protected by all the safeguards known to preventive medicine. The Hospital Corps, upon which falls exclusively the nursing of the sick and wounded outside of hospitals, has been increased from 1,500 to nearly 9,000. Hospital Corps training schools have been established in connection with the training stations at San Francisco, Great Lakes, Newport (R. I.), and Hampton Roads. In these schools young men of character and aptitude are intensively trained for their duties at sea.

"Foreseeing that the hospital ship now under construction would not be completed in time to meet the war needs of the service, two large liners were secured and converted into hospital ships to supplement the work of the hospital ship *Solace*.

"Admiral Braisted arranged that the transports operated by the Navy should have ample Medical Department facilities and necessary equipment, and so far as naval facilities exist, has assumed responsibility for the medical and surgical care of all Army sick and wounded who may be transported home on naval vessels from Europe.

"For the care of our naval forces in England, France, and European waters three base hospitals are already in operation abroad.

"In expanding the Medical Department to meet the present and future needs of the Navy, we were glad to find that the needs of the increasing numbers of industrial workers and other civil employees in the large manufacturing plants and navy yards had not been overlooked. The peace-time humanitarian work is also being continued in connection with Haiti, Santo Domingo, Virgin Islands, Samoa, and Guam, involving a population of over 2,000,000 people."

The report concludes with the statement, "It may well be said that the reason for this successful record is to be found in the bureau's preparedness, due to foresight and cooperation."

In the early months of the war when the medical members of the Council of National Defense were studying our organization and work they repeatedly expressed admiration of the smoothness of operation and the celerity with which large undertakings were accomplished. In fact they and others competent to judge were of opinion that there was no finer medico-military organization in the world at the outbreak of war than that of the United States Navy.

For a true perspective of Medical Department preparedness it is necessary to go back several years. It is our business at all times to prepare for war. Long before events suggested the probability of war among European nations, preparations for war—any war—were going on steadily. Owing to Surg. Gen. Rixey's foresight I was sent to Japan during the Russo-Japanese War as medical observer to gather information that might be utilized in our own preparations. Much was learned during my year of study in Japan and the knowledge gained proved to be of the greatest value. In the years previous to the World War the vivid preconceptions of war and all that war means, formed as a result of that experience, were of the greatest help to me in looking forward to the possibility of war.

Upon returning from Japan I assisted Surg. Gen. Rixey in his vigorous policy of enlarging, extending, and modernizing our chain of base hospitals. He accomplished a great deal not only in this direction but in the improvement of conditions relating to personnel as well, and from this time forward the Medical Department has been engaged in unremitting efforts to prepare for any eventuality in so far as the public interests and the judgment of the people permitted.

The subject of Medical Department preparedness for war may be considered under the following headings:

1. Organization.
2. Personnel.
3. Hospitals, hospital ships, and other provisions for the care of the sick and wounded.
4. Material equipment: Medical and surgical supplies, medical and surgical equipment.
5. Preventive medicine and sanitation.
6. Finances.

The Medical Department must be organized in time of peace in such a way that rapid expansion can take place without any change in the scheme of organization, without confusion, and without retarding or interfering with routine work, because with mobilization for war there comes a tremendous and sudden increase in the work of the Medical Department, both in connection with the induction of officer and enlisted material of all ratings into service and on account of an increase in sickness inevitable with an untrained and unseasoned personnel undergoing intensive training. At the same time the new Medical Department personnel must be trained rapidly. Provision must be made for the care of greatly augmented naval forces in the way of enlargement of base hospital facilities, and plans must be laid in advance to meet all possible contingencies which may arise from the special character of the war.

For several years before this war the most careful consideration was given to matters of organization. Shortages of Medical Department personnel in relation to the growing peace-time Navy were pointed out and appropriate legislation was recommended. The difficulty of affecting rapid expansion of the Medical Corps and of the Hospital Corps, under the existing conditions of many years standing, was clearly recognized.

The Hospital Corps of the Navy is peculiar to the United States Navy. It was established as such in 1898 and reorganized in 1906. The Nurse Corps, composed of trained women, was established in 1908 as a further step toward preparedness and assurance of the best possible care of the sick and wounded in accordance with modern standards of nursing. The Medical Reserve Corps was created by act of Congress, August 22, 1912, with a view to paving the way for the rapid mobilization of additional medical officers for active service in case of war.

Before the war complete reorganization of Medical Department personnel was effected. The distribution of medical officers on a fixed basis took place with proper distribution in grade and rank so that when war came it was only necessary to take in the additional personnel as rapidly as required to keep pace with the growing strength of the Navy. Similar changes Hospital Corps were also brought about.

In these particular features of organization more was accomplished in this period reorganization than had been accomplished in the whole previous history of the Medical Department. Secretary Daniels was deeply interested in the legislation necessary to secure these results, realizing not alone what it would mean in peace time but especially in the event of war.

In 1918 the members of the Medical Reserve Corps were listed for mobilization in accordance with their expressed willingness to serve in case of war, and a correspondence course was established for their education in naval matters. A similar course was provided for medical officers of the Naval Militia. Later, when the Medical Reserve Force was created by act of Congress, August 29, 1916, because of the rapidity with which medical officers could in this way be inducted into service and obliged to perform any duty, enrollment in the Reserve Force was carried on in preference to appointment in the Medical Reserve Corps which was subsequently abolished. The physical records of retired medical officers were studied with a view to determining those who might be available for active service, and mobilization points were

designed for those selected. These officers actually reported for duty the day war was declared, in response to telegraphic orders.

In view of the act of Congress of July 1, 1902, which authorized the President to employ the Public Health and Marine Hospital Service in time of threatened or actual war, for service under the Army or Navy, plans were laid to utilize both the personnel and the hospital facilities of the United States Public Health Service in the event of war. The President exercised this authority by Executive order of April 3, 1917.

With a view to preparing in advance for the active cooperation of the American Red Cross, authority to detail medical officers of the Navy to that organization was requested and granted by act of Congress August 29, 1916.

Early in 1916, on the possibility that the United States might enter the World War, an estimate of the situation was made, and charts were drawn up to indicate places where Medical Department personnel would be needed—medical officers, dental surgeons, nurses, and hospital corpsmen. All personnel available at that time, including members of the Medical Reserve Corps, retired officers, and medical officers of the Naval Militia were listed for mobilization.

In October of 1916 the Bureau of Medicine and Surgery made a survey of 144,000 physicians in the United States for the purpose of determining their eligibility for service in the regular Medical Corps. More than 7,000 of these were individually circularized. In addition, the cooperation of medical colleges was sought. While this work did not lead to an immediate increase in the number of applicants, it did familiarize medical men with the service and its needs and resulted in a sufficient number of applications when war came to meet our needs throughout. Early in 1917, with war in prospect, the enrollment of medical and dental officers in the Naval Reserve Force was conducted rapidly by special examiners. The Dental Corps of the Navy was created by act of Congress August 22, 1912. This was an important provision and has done much to aid in promoting physical efficiency of the personnel.

Prior to the declaration of war special parties were sent out to recruit for the Hospital Corps. Hospital Corps schools were established at the naval training station, Newport, R. I. (1914), and at the training station, San Francisco (1915). A third school was established at Great Lakes in January, 1917, and later, when the naval operating base at Hampton Roads, Va., was ready to begin the training of enlisted personnel, a fourth and finely equipped school was located there.

On July 27, 1915, in accordance with Navy Department confidential instructions dated May 28, 1915, following a letter from the General Board to the department, the bureau reported to the department in details its plans for rapid expansion of personnel, enlargement of hospitals, construction of hospitals of the emergency type, utilization of Public Health Service hospitals, arrangements to be made for the care of naval patients in civil hospitals where necessary, as well as data concerning the various civil hospitals and the number of beds available. Specifications were presented for the quick conversion of merchant ships to be used as hospital ships, ambulance ships, or medical transports. The initial requirements for medical and surgical material and Medical Department supplies of all kinds were stated, and probable requirements for the subsequent periods of a war were discussed, together with sources of supply and amounts available with the time necessary for delivery. Detailed plans for the purchase, delivery, and inspection of such supplies were described.

Thereafter, reports of preparations necessary to insure a state of preparedness for war were made quarterly to the department. The preparations of the Medical Department progressed without interruption.

In conjunction with the Bureau of Yards and Docks and the Office of Naval Intelligence plans were prepared for the construction of prison camps, and early in 1916 possible sites, including Government-owned land at Greensborough Neck, Annapolis, Md., were inspected.

In 1916 the war slate for naval districts was revised. Adequate and uniform plans were made for Medical Department organization in each district. A survey of hospitals and other institutions which could be converted into hospitals was completed and the institutions were listed according to naval districts. Naval hospital base units were organized under the auspices of the American Red Cross, which also undertook the development of nursing units and the enrollment of graduate nurses for service in the Navy. Early in 1917 district organization was completed. The Medical Department was divided into two general classes: (a) division of dispensary service (field and local service), and (b) hospital service (central). A senior medical officer was detailed as medical

aid to the commandant of each naval district to supervise all Medical Department activities in the district other than those belonging to the hospital service.

The medical officer in command of the naval hospital was designated as director of hospital service in charge of the naval hospital base, with supervision of the care of all patients transferred to hospital. His duties included arrangements with civil institutions for the care of Navy patients when necessary; general supervision over their care and treatment under such circumstances; and development of naval base hospital facilities to meet growing needs. His duties required cooperation with the medical aid to the commandant for the complete coordination of all Medical Department activities under close supervision of the Bureau of Medicine and Surgery.

General expansion of naval hospital facilities began in 1909 with the construction of permanent buildings of the finest type at Portsmouth, N. H., Chelsea, Mass., Newport, R. I., and at Puget Sound, together with the enlargement and modernizing of the hospitals at Norfolk, Philadelphia, New York, and Mare Island. The hospitals at Annapolis, Md., and Washington, D. C., were begun in 1904. All of these main hospitals on both coasts were designed to serve as hospital bases, and they were indefinitely planned so that the capacity of each could be increased rapidly by the use of tents for construction of temporary wards should occasion require. Special provision was made late in 1916 for enlargement of the naval hospitals at New York, Norfolk, Mare Island, Puget Sound, and Pearl Harbor.

Plans had been drawn in 1913 for hospitals of an emergency type. Small-scale plans with specifications were completed in June, 1913. These covered buildings comprising a complete hospital unit, to be set up wherever the need for additional hospitals might be demonstrated in the event of war. The plot plans of certain naval hospital reservations were also laid out so that drawings would be available in case of war to show exactly where ward buildings of the emergency type were to be erected.

The emergency hospitals were designed so that each could be increased from a small unit to a total of 5,000 hospital beds if necessary. The plans were very carefully worked up from a study of hospital camp conditions and the probable needs of the Navy. Later developments proved that the original layouts would have been entirely satisfactory. However, when the United States entered the World War it was found that, owing to the shortage of lumber of certain dimensions, material could be obtained more readily and that construction would proceed more rapidly and economically if the plans were modified. The 500-bed camps constructed in the early months of the war were all comprised of one-story buildings, whereas the original plans called for two-story ward buildings. Some improvements were made in the later hospitals, but it may be said of all that no finer hospitals of an emergency type could be expected; and in certain respects, so far as the comfort and treatment of patients is concerned, they were even superior to the best permanent hospitals.

With the exception of the naval hospital at Cape May, N. J., additional construction at New London, Conn., and the unit put up on Wards Island, N. Y., all of the emergency hospitals in the United States were built on Government-owned land.

It is safe to say that when war became imminent the United States had the most magnificent system of naval-base hospitals in the world on a peace-time basis, and to meet war conditions it was only necessary to complete the emergency construction already planned. During the year previous to mobilization a large amount of tentage was procured and distributed among the various hospitals to be stowed away in order that a sufficient number of tents might be available for immediate increase of bed capacity wherever required in case of necessity. Additional hospital beds were also supplied so that, by utilizing extra space in hospital buildings not ordinarily needed for beds, as well as in tents, the bed capacity of these base hospitals could be increased nearly 100 per cent at once. Hospital storerooms were filled with reserve stocks of medical and surgical supplies to meet any demand that might come. Moreover, vessels of the Navy in commission were furnished with greatly increased quantities of medical supplies.

Several years before the war the Bureau of Medicine and Surgery began gradually to accumulate medical and surgical supplies and Medical Department equipment generally, in reserve, the aim being to carry at all times in the principal medical supply depot of Brooklyn, excess stocks equivalent to the de-

mands of one peace-time year. When war broke out in Europe this one year's reserve supply was increased by large purchases without waiting for special appropriations because it was realized that the United States was then largely dependent upon Europe for goods of that character and that much time would be required for their manufacture in this country. The necessity for this large reserve supply was explained to the Naval Committee and specific authorization to proceed with the purchase was secured from Congress in the naval act of August 29, 1916. Through this forethought the Medical Department not only had abundant supplies of medical and surgical stores on hand at the beginning of the war, but there were already in force contracts so drawn that the bureau could purchase without waiting for new bids, and could procure without delay, all stores and equipment needed for the medical outfits of the many additional vessels secured by the Navy Department and converted for naval purposes. In the same manner the new hospitals and the many dispensaries established at numerous training camps and stations were promptly supplied and equipped. Supplies for overseas were invariably furnished in the full quantities requested without delay. Important supplies were duplicated and sometimes triplicated by separate shipments to make good in advance possible losses through the sinking of vessels by the enemy.

In some instances stores and personnel were assembled and held ready waiting word from London. Bureau instructions were to furnish anything requested from London at once without waiting for explanations. In no instance during the war was any ship or station delayed in being placed in active service because of the lack of or delay in the shipment of medical and surgical supplies. London headquarters was authorized to purchase abroad in advance of approval any stores or supplies needed.

Because of these preparations the Medical Department passed quietly from a peace to a war footing on April 6, 1917. A few more clerks and four or five additional officers were taken into the Bureau of Medicine and Surgery but no radical changes in organizations were necessary.

I went to the Secretary and explained the necessity for immediate action with regard to emergency hospital construction. He realized the situation and our plans received instant approval.

By authorizing the technical charge of cost against a small contingent appropriation the Secretary made it possible for me to go ahead with our building operations without awaiting the sanction of Congress, of which we felt assured, but which was not actually given until the passage of the appropriation act of June 15, 1917. By that time we had under way, and some of it nearing completion, millions of dollars worth of hospital buildings in many places. This prompt action before material and labor costs had advanced saved a great deal of money as well as time. By autumn the first chain of new emergency hospitals was ready for use, including those at League Island, Pa., Charleston, S. C., Cape May, N. J., and Pensacola Fla.

At the same time additional temporary wards were ready for occupancy at Portsmouth, N. H.; Newport, R. I.; Norfolk, Va.; and Great Lakes, Ill., so that the first winter of the war was approached with considerable assurance. A little later, additions were made to the base hospitals at Chelsea, Mass.; Philadelphia, Pa.; Mare Island, Calif.; and Puget Sound, Wash. New hospitals were built at Pelham Bay Park, N. Y.; New London, Conn.; Hampton Roads, Va.; and Key West, Fla. United States naval hospitals were also established in Europe.

In brief, the explanation of naval hospital facilities continued steadily throughout the war to keep pace with the growing strength of the Navy, which finally exceeded 600,000 in total personnel by November, 1918. Eventually, naval hospitals were increased in number from 17 to 43, 13 of which were located in Europe, including 5 base hospital units which were organized early in the war.

The hospitals abroad were fitted out with the most modern equipment, most of which, such as operating-room appliances, laundry machinery, sterilizers, etc., was sent from the United States.

By January 1, 1918, the total bed capacity had increased from 3,850 to 15,688. Before the war was over the number of hospital beds available reached a total of more than 19,000. This figure included our hospitals all over the world and 817 beds in three hospital ships.

About the middle of 1917 in view of the increasing activities of our Navy in the war zone and the realization that these would increase as fast as new personnel could be trained, and also on account of the possibility of a fleet

action in which one division at least of the United States fleet would take part with the main British fleet, it was recommended that two base hospitals be established in England or Scotland. This allocation was finally approved abroad and two base hospital units were immediately mobilized. They were held ready pending arrangements for their establishment in the British Isles. The commanding officer of one unit was sent abroad to complete arrangements. After some delay a unit was located in Strathpeffer, Scotland, within easy communication with the main fleet and the bases utilized by the North Sea mining groups. This hospital was magnificently located and splendidly equipped, and it proved to be of great service to the British Navy as well as to our own forces.

Later the second base hospital unit which had been mobilized and was being held in Philadelphia awaiting orders was located at Leith, Scotland, near one of the North Sea bases. The third hospital was located at Queenstown, Ireland, where our main patrol fleet was based. The bureau's first recommendation that these hospitals be established at once was disapproved July 18, 1917, by the commander of United States naval forces operating in European waters on the ground that there would probably not be any demand for these base hospitals, at least not within the year.

After correspondence relative to the contemplated expansion of our forces operating in European waters and the anticipated delay in locating and commissioning them both hospitals were finally placed in operation. Pending the establishment of a base hospital at Queenstown the bureau recommended that a hospital ship be sent to that port in view of the fact that complements amounting to 12,000 men were to base there on ships and ashore. We had additional personnel located in Ireland at aviation and balloon stations. This plan was rejected abroad on the ground that the harbor was too crowded and a hospital ship was not needed.

Early in the war two base hospital units were established at Brest, France, where they did fine work throughout, one of them exclusively for Army patients. The personnel of these units, organized under the auspices of the American Red Cross and enrolled in the Naval Reserve Force under the command of regular medical officers of the Navy, rendered splendid service and are deserving of great credit. Other units were organized, but their services were not required. Twenty-five station hospital units consisting of medical and nursing personnel only were organized in conjunction with the American Red Cross to supplement the personnel at naval-hospital bases. Ten of these were called to duty and served during the war.

With regard to hospital ships, we had the U. S. S. *Solace* in commission at the beginning of the war and we had a new hospital ship under construction at the Philadelphia Navy Yard designed and planned for the purpose of the Bureau of Construction and Surgery. In 1916 the Board of Inspection and Survey having inspected the steamships *Saratoga*, *Havana*, and *Mexico* of the New York & Cuban Steamship Co., these vessels were designated to be assigned to the Medical Department in the event of war, and detailed plans were prepared for their quick conversion for hospital-ship purposes. At the same time all details relating to their complements and equipment were worked out. Plans had been drawn previously, in 1914, for conversion of the *Havana*, *Mexico*, *Saratoga*, and also the *Morro Castle*, a somewhat smaller vessel of the same line. For service in the Pacific Ocean the bureau requested in 1916 that the *Sierra*, *Sonora*, and *Ventura* be designated for conversion into hospital ships. After war was declared the *Havana* and *Saratoga* were converted in accordance with these plans at the New York Navy Yard, the former becoming the U. S. S. *Comfort* and the latter, the U. S. S. *Mcrcy*. These vessels relieved the *Solace* in taking care of the needs of the Atlantic Fleet and they were ready in time to meet other demands. They proved to be excellent hospital ships in so far as merchant ships can be made to serve the purpose.

To go back to the beginning of the war; we had many anxious moments, of course, but on the whole our work went on without confusion. After the declaration of war we received plenty of applications for the Medical Corps, but it was a difficult matter to induct medical officers and train them fast enough to meet the needs of the rapidly expanding Navy. The demand for officers of sufficient experience and training to render them capable of assuming independent duties was very great, especially as the care of the sick at base hospitals and training stations and camps was fast becoming a tremendous undertaking owing to the mounting numbers of unseasoned men undergoing intensive training. These not only brought communicable diseases into the

service with them from civil communities but they were, like all untrained and undisciplined recruits, peculiarly susceptible to disease.

By shortening the course at the United States Naval Medical School, class after class of new medical officers received sufficient preliminary instruction in naval medical matters to fit them for duty at naval hospitals, where with practical experience they were rapidly fitted to perform duty at operating stations and at sea. Advantage was also taken of the offers of various medical schools to provide special courses of instruction. Many men of previous training in the various specialties of medicine rendered splendid service in the Navy along their special lines of work. Some of the most eminent practitioners of the country entered the Naval Reserve Force and served in this way both independently and in connection with hospital units.

The urgent necessity of expanding the Hospital Corps of the Navy to enormous proportions at once presented problems of peculiar perplexity. Fortunately young men of splendid character and excellent ability entered the corps in large numbers, and it was therefore possible to train them much more rapidly than under ordinary circumstances. The establishment of Hospital Corps schools has already been mentioned. In view of the special training required and the diverse duties which must be performed skillfully by these men the enlargement of the corps fast enough to provide for all needs ashore and afloat must be regarded as one of the great accomplishments of the Medical Department.

With war imminent the cooperation of the United States Public Health Service was requested by the Secretary of the Navy and assured by the Secretary of the Treasury. Arrangements were then made to take over the medical personnel attached to Coast Guard vessels and for the use of Public Health Service hospitals in case of need.

Shortly after the beginning of the war, in addition to those serving on board Coast Guard vessels, 13 officers of the Public Health Service, including some of their most experienced and expert members, were detailed to serve in the Navy during the war. One was assigned to each naval district, where he was of the greatest possible assistance to the medical aid to the commandant whom he was able to relieve of a great burden of work in connection with the sanitation of the rapidly growing stations and outlying section bases and in the enforcement of measures for the prevention and control of disease.

This arrangement proved to be a very fortunate one. With the sanitation officer acting as assistant to the medical aid to the commandant, whose time was almost completely consumed with manifold duties relating to the movements of personnel and development of Medical Department activities for the care of the sick, the medical aid was enabled constantly to keep in touch with conditions in all parts of his district. In this way preventive medicine was completely coordinated with curative medicine. It is believed, therefore, that our plan of district medical organization is beyond criticism.

Two of the most expert officers of the Public Health Service, with wide experience in public health organization and sanitation matters of all kinds, were detailed to the Bureau of Medicine and Surgery and assigned to the Division of Sanitation, organized under the direction of a medical officer of the Navy, who was thus enabled to avail himself at all times of the most competent advice and assistance. Intimate relations were quickly established with the Bureau of the Public Health Service and in this way the staff of the bureau, as well as the personnel at the hygiene laboratory, were constantly available for purposes of consultation in addition to the staff of the United States Naval Medical School.

The Bureau of Medicine and Surgery supervised the work of the Medical Department in the field and studied the many problems which constantly arose in connection with the expansion of naval stations and the new ones which were being developed. Particular attention was paid to housing and housing standards for barracks and other habitations, water supplies, environmental conditions, and sanitation matters in general, together with measures for the prevention of communicable diseases. The department, and the service at large as well, was informed each week of health conditions in the Navy. Weekly bulletins were issued containing information and instructions for medical officers, many of whom had not had instruction or experience in civil practice along the lines of preventive medicine and sanitation.

During the first year of the war, when we were almost swamped with our own work, the Secretary sent for me and told me that the Navy would take over the transport service for the Army. For the moment I did not see how

we could do more than we were doing, but the Secretary said we were all in the war together to win, and that I must do everything possible to help Gen. Gorgas.

We went to work on this problem at once and our experience with ship sanitation and Medical Department organization afloat made it comparatively easy to develop plans for safeguarding the health of troops in Navy transports and for the installation of ample medical and surgical facilities for these ships as fast as they were turned over to the Navy for alteration. Never in the history of warfare has there been such a movement of troops so well taken care of, their health protected in every possible manner, every detail of sanitation receiving strict attention and elaborate provisions being made for the care of the sick and wounded with special provisions for the safety of the insane; in fact, the larger vessels were regarded as combined transports and hospital ships. This work was taken over and performed entirely by the Medical Department of the Navy without extra appropriations and without expense to the Army.

Hospital ships were not to be had because it was decided early in the war that military-naval considerations precluded the possibility of assigning ships especially for transportation of the sick and wounded. The Bureau of Medicine and Surgery therefore planned accordingly, well in advance of needs, to meet all contingencies with Navy transport facilities. The provisions made proved ample, not only for the care of the casual sick of troops in transit, but for the actual return of 151,649 Army sick, wounded, and insane; 4,395 Navy, and 3,626 marine, from the expeditionary forces in France alone.

By the time the armistice was signed, plans had been completed for accommodations in Navy transports already in commission, about to be commissioned, and under construction to bring back from Europe 30,000 sick and wounded per month. This figure includes 15,000 bed patients. These were the estimated requirements for an army of 5,000,000 men. Inasmuch as the number of men who reached France did not greatly exceed 2,000,000, the figures show how ample the provisions were. Moreover, these accommodations represented but 80 per cent of the total available, 20 per cent having been reserved for naval personnel.

Another undertaking about which not so much has been heard was the work of the Medical Department in connection with the Naval Overseas Transportation Service, which eventually included more than 350 cargo vessels. The Medical Department organization for this service alone assumed large proportions.

Much might be said of the work of the Medical Department of the Navy in many parts of Europe. Dispensaries and hospitals were established in the eastern Mediterranean district, at Corfu, in Italy, France, Gibraltar, and the Azores to care for the health of United States naval personnel which in all finally approximated 75,000 officers and men, including marine forces numbering more than 28,000. Nothing need be said of the marines except to remind you that in all of their splendid work the Medical Department of the Navy participated. The medical and surgical equipment supplied them was of the highest order and was furnished in advance and in quantities greater than were used.

Among the miscellaneous activities the Bureau of Medicine and Surgery did pioneer work so far as the Navy is concerned in making preparations for defense against poison warfare gases and undertook the instruction of personnel ashore and afloat, including marines detailed for France. A laboratory was established early at the United States Naval Medical School for the study and future study of warfare gases, and a series of bulletins, both confidential and non-confidential, was issued by the bureau for the instruction of naval personnel. One of these bulletins contained drill regulations. Later the excellent Navy gas mask was designed by the Bureau of Construction and Repair in cooperation with the Bureau of Medicine and Surgery.

At the beginning of the war, in connection with the prevention and control of communicable diseases, the bureau enlarged and extended the diagnostic laboratories at naval hospitals and established completely equipped laboratories where required to serve naval district needs. At the naval training stations and larger camps laboratories were provided for an extensive range of scientific work, and a highly trained laboratory personnel was quickly developed. In addition the United States Naval Medical School organized, equipped, and trained the personnel of three mobile laboratory units, which were dispatched re-

peatedly upon short notice to various stations to supplement existing facilities or to provide the laboratory measures necessary for the prompt control of such diseases as diphtheria, cerebrospinal fever, pneumonia, and other carrier-borne diseases. In the early days of the war, as planned in advance, good use was made of the laboratory car of the United States Public Health Service. This was during the initial period of expansion at the naval training station, Great Lakes, Ill.

Special preparations were made to care for the dead. Supplies of caskets were procured in advance of the war and stored in naval hospitals, and during the war all transports were furnished with a sufficient number to meet probable needs. Special instruction in embalming was provided for selected members of the Hospital Corps, and rigid instructions were issued throughout the service relative to the care and disposal of the dead. The bureau has received many appreciative letters from bereaved relatives for the pains taken in this respect. At the present time, due to preparations in advance, we have brought home almost all of our dead from Archangel to Africa, with the exception of marines buried in the zone of the Army in France.

For the first year of the war the percentage of sickness and the admission rates for diseases were lower than for peace-time years. April 1, 1918, the bureau was already planning preventive measures for the control of disease to meet conditions of the next winter and was receiving the full cooperation of other bureaus to that end. The pandemic of influenza in the autumn of 1918 spoiled our record, but in spite of the frightfully severe type of pneumonia which accompanied that disease and the deplorable number of deaths the Navy escaped lightly in comparison with the disastrous consequences of epidemics in many countries, including the United States, when it is considered that a large majority of all persons in the Navy were in the age groups that everywhere showed the highest death rates. The death rate of the Navy from disease for the period of the war was 8.8 per thousand of total strength, the lowest death rate ever recorded for the military or naval forces of the United States in actual war, lasting through all seasons of the year.

In looking back, with the record of this war before us, it is extremely doubtful if our work could have been done very differently or any better if it had to be done over again. Both in making provisions for preparedness and during the war the deep interest of the Secretary was very helpful to me. He never failed to approve of my recommendations when our needs were fully placed before him, and he helped me to put into effect as promptly as possible everything that could be done to make the work of the Medical Department more effective. Indeed, his advice and suggestions were frequently of the greatest assistance.

In conclusion, it should be said that the credit for the successful conduct of the Medical Department of the Navy in the World War belongs in great part to our trained personnel, which must be maintained on an adequate basis if there is to be future preparedness for war in time of peace.

W. C. BEAISTED.

SUMMARY OF MEDICAL DEPARTMENT ACTIVITIES IN PREPARATION FOR AND DURING THE WAR.

Organization features.—Medical Department always preparing for war, long before 1914. Hospital Corps reorganized, 1906. Navy Nurse Corps established, 1908. Medical Reserve Corps created, 1912.

July, 1915, Bureau of Medicine and Surgery reported to Navy Department its detailed plans for war—expansion of personnel, hospital construction, utilization of civil institutions, hospital ships, medical and surgical supplies.

In 1916, reorganization of personnel; Medical and Hospital Corps placed on fixed basis; war slate revised, charts prepared to indicate where personnel would be needed in event of war, and adequate plans for district medical organization made. Arrangements for organization of naval hospital base units under auspices of American Red Cross and for enrollment of nurses. Sites inspected and plans drawn for prison camps in conjunction with Bureau of Yards and Docks and Office of Naval Intelligence.

When war came no radical changes in bureau or Medical Department organization necessary.

Hospitals.—Enlargement and modernizing by finest type of permanent construction of eight existing naval hospitals, 1909. Provision in 1916 for addi-

tional enlargements, New York, Norfolk, Mare Island, Puget Sound, and Pearl Harbor.

Complete plans drawn, 1913, for hospitals of emergency type, each permitting increase from small unit to total capacity of 5,000 beds.

Tentage and additional beds procured and stowed at various naval hospitals in 1916. Hospital storerooms filled with reserve stocks of medical and surgical supplies, and vessels furnished increased quantities. No finer system of naval base hospitals existed anywhere when we entered the war.

Upon declaration of war, with the approval of Secretary, proceeded at once with building operations without awaiting sanction of Congress. First chain of emergency hospitals ready, autumn of 1917. Prompt action saved time and money.

Hospital expansion kept pace with growing needs; total bed capacity increased from 3,850 to 15,689 by January 1, 1918, and more than 19,000 before war ended; figures include hospitals all over the world, and 817 beds in three hospital ships to care for personnel finally exceeding 600,000.

Two base-hospital units early established at Brest, France. Later, United States naval hospitals located at Strathpeffer, Scotland; Leith, Scotland; and Queenstown, Ireland. Other units organized; services not required. Twenty-five station hospital units organized in conjunction with American Red Cross; 10 served.

Naval hospitals and dispensaries established, eastern Mediterranean district, at Corfu in Italy, in various parts of France, at Gibraltar, and in the Azores, to care for naval personnel approximating 75,000 officers and men.

Hospital ships.—In accordance with plans drawn for their conversion in 1916, two merchant ships were altered in 1917 and placed in commission as hospital ships, in addition to the U. S. S. *Solace*. New hospital ships under construction in Philadelphia Navy Yard could not be completed in time for service.

Personnel.—Medical Reserve Force created, 1916; provided for rapid induction of medical officers obligated to perform any duty. October, 1916, Bureau of Medicine and Surgery made survey of 114,000 physicians in the United States to determine eligibility for regular Medical Corps; more than 7,000 individually circularized. With war in prospect, rapid enrollment of medical and dental officers in the Reserve Force.

Medical officers on active duty increased from 353 at outbreak of war to 3,093, as follows: Regular, 829; temporary, 429; reserve, 1,720; retired, 98; acting assistant surgeons, 3; Public Health Service, 16. Dental officers increased from 34 to 485—122 regulars and 363 reserves.

Hospital Corps expanded from 2,000 to 16,564. Hospital Corps schools established: Newport, 1914; San Francisco, 1915; Great Lakes, 1917; Hampton Roads, 1917.

Medical and surgical supplies.—Legislation secured in 1916 to continue accumulation of excess stocks already begun in advance of congressional approval. Abundant supplies on hand when war came. Supplies for overseas furnished in full quantities requested; often duplicated and sometimes triplicated to insure arrival despite submarine menace.

Transports.—Hospital ships not to be had on account of early decision that military and naval desiderations precluded. Therefore plans developed in 1917 for ample medical and surgical facilities which could be installed in transports as fast as they were turned over to the Navy. Larger vessels equipped as combined transports and hospital ships. Troops in transit in Navy transports entirely cared for by Medical Department of the Navy without expense to the Army. That the bureau's provisions proved adequate, shown by actual return of 151,649 Army sick, wounded, and insane—4,395 Navy and 3,625 Marine from France alone—in addition to care of casual sick in transit. Plans completed before the armistice for accommodations in Navy transports commissioned, about to be, and under construction for the return of 30,000 sick and wounded per month, including 15,000 bed patients; this representing but 80 per cent of accommodations, 20 per cent being held in reserve.

Care of the dead.—Plans for proper care of the dead effectively carried out by medical officers and specially trained Hospital Corps men. Through plans made in advance most all Navy dead, except marines buried in the zone of the Army in France, already brought home.

Other activities.—Laboratories and trained personnel established in all naval districts and abroad for wide range in scientific work and sanitary service.

Bureau of Medicine and Surgery undertook researches and pioneer work for the Navy to prepare defense against poison warfare gases. Provided practical

instruction for naval personnel ashore and afloat, including marines detailed for France.

Health of the Navy.—Completeness of organization and medical department efficiency along all lines, preventive as well as in medical and surgical treatment, reflected by the very low death rate from disease during the war—8.8 per 100 per annum, in spite of unprecedented epidemic of influenza and pneumonia.

The conduct of the Navy in war was thoroughly investigated in 1918 by a subcommittee of the House Committee on Naval Affairs. The work of the Medical Department received high praise and the report of the committee stated, "It may well be said that the reason for this successful record is to be found in the bureau's preparedness, due to foresight and cooperation."

Secretary DANIELS. Military justice in all countries and in all ages has too often been hard-boiled. There is nothing in connection with the naval administration in the World War more gratifying than the freedom from criticism of court-martial trials and the administration of justice in securing discipline and obedience. This is always particularly difficult in time of war, but the department introduced modern methods in discipline, in trials, and in punishment. Wherever these principles were carried out in spirit, the best results followed, and, with few exceptions, naval courts vied with the best civil courts in sifting evidence and rendering righteous judgments. Sentences were not long, imprisonment was made endurable by the hope held out to the erring, and the war ended with almost universal commendation of naval courts and naval humane discipline. The Judge Advocate General, Admiral George R. Clark, details the methods and policies which were practised, and it is an important chapter in the naval administration during the World War. I submit this for the record and will not read it. It is as follows:

DEPARTMENT OF THE NAVY,
OFFICE OF THE JUDGE ADVOCATE GENERAL,
Washington.

SUMMARY OF THE ACTIVITIES OF THE OFFICE OF THE JUDGE ADVOCATE GENERAL OF THE NAVY DURING THE PERIOD OF ACTIVE HOSTILITIES AND SINCE THE ARMISTICE OF NOVEMBER 11, 1918, WITH PARTICULAR REFERENCE TO THE INCUMBENCY OF THE PRESENT JUDGE ADVOCATE GENERAL.

At the outbreak of the war we were suddenly confronted with problems not in the book. A nonwarlike Nation, engaged in peaceful pursuits, was rudely awakened to the need of meeting a grave peril that threatened the very foundations of civilization. The need was immediate; the danger pressing. The enemy was at the gate, giving no time for the careful and thorough training necessary for complete readiness for war. All are familiar with the patriotic response made to the call to arms by the young men of America, but few realize the difficulties and perplexing problems brought about by the sudden growth of the Navy from 50,000 to 600,000 men and officers, wholly unfamiliar with naval discipline and life at sea. It sometimes happened that boys from the farm, a few weeks, or at most a few months, after leaving the plow found themselves at the masthead of ships at sea looking out for the periscopes of the enemy submarines. It was a difficult situation where, so far as the work of discipline was concerned, a nice balance had to be preserved between sternness and clemency, between severity and leniency.

In the annual reports of the Judge Advocate General, addressed to the Secretary of the Navy, will be found detailed and comprehensive statements of the work done in the several subdivisions of his office; while the incorporation, in this summary, of the main body of these reports would be undesirable from several points of view, principally because of their statistical and repetitious character, still a résumé, or digest, of their contents may serve, in some measure at least, to convey an idea, if not a complete understanding, of the scope and fullness of the office work, as well as the increase therein incident to a state of

war and demobilization and the progress and improvement in the methods devised and adopted in order to handle the increased volume of business.

Brief mention will be made of the work of the several divisions of the office, reserving for especial attention that division alone which has come to be held by the naval service at large and by the interested public and which, indeed, seems to be connoted by the very name of the office itself, as the primary and most important branch, in fact the *raison d'être* of the office—the Division of the Administration of Justice. It is in this division that expansion and development of principles and practice have been most marked during the period under consideration; for while fundamental principles are to a large extent immutable, the practical application of them must necessarily be progressive and in keeping with varying conditions which, especially in time of hostilities, demand vastly increased requirements of personnel in character and performance.

During the two fiscal years covered by this summary there were reviewed 3,281 examinations for admission to commissioned grades in the Navy and the Marine Corps, including the reserve forces; 1,596 examinations for permanent promotion in rank; and 182 examinations for retirement for physical disability incident to service.

During the same period there were reviewed, courts of inquiry, 517; boards of investigation, 1,889; and boards of inquest, 957.

Likewise, for the same period, Senate and House bills, joint resolutions, and proposed amendments referred to the department and considered by this office were as follows: Senate, 76; House, 132; bills drafted, 70; in addition to which a great mass of legislation proposed, submitted, or enacted has been considered, discussed, and acted upon.

Twelve questions of paramount importance have been submitted to the Attorney General for his determination of the points of law involved; and in connection therewith it is a matter of pride to this office that our interpretation was upheld in the large majority of the questions involved.

Requests for decisions on question of pay by the Comptroller of the Treasury numbered 714, of which 496 were answered by the department, the remainder being submitted to the comptroller. This has been a very important and absorbing work, largely in the interest of the enlisted personnel.

As indicative of the greatest factor influencing the volume of work devolving upon this office it may be well to note that during the period concerned the personnel of the naval service in all its branches reached a maximum of 35,777 officers and 579,958 enlisted, an aggregate of 615,735.

Turning now to the subject of the administration of justice in the naval service, certain portions of the annual reports for the fiscal years 1918 and 1919 are quoted just below:

1918: During the past year the volume of work in this division has materially increased, due almost wholly to the enlarged personnel of the Navy and Marine Corps. The records of all the cases of whatsoever character tried by either general or summary courts-martial or deck court, as well as cases investigated by courts of inquiry and boards of investigation, are reviewed in this division.

An endeavor, attended with exceptional success, has been made to keep the review of these records up to date, and it is most unusual for a week to elapse before a case is finally disposed of and letters promulgating the action of the department sent out. * * *

Every effort is being made to decrease, in so far as may be practicable, the proportionate number of trials by court-martial. Such action seems particularly wise at this time, inasmuch as so large an element in the service is composed of men without previous military training, who are animated by a laudable desire to serve the Republic, coupled with a lack of definite understanding of the meaning of and necessity for an exact discipline.

The foregoing table (not shown here) indicates a very considerable reduction in the proportionate number of trials of enlisted men during the fiscal year 1918. This means not only that the services of a smaller number of delinquents have been removed from the sphere of usefulness with the colors, but also that the time of many officers serving in connection with courts has been conserved for active duties instead of being expended in the administration of justice. It is interesting in this connection to observe that during 1917 there was an average of 95,548 men under naval jurisdiction, whereas during 1918 there was an average of 412,415 men subject to naval administration. The number of men tried by general court-martial in 1917 was 1,816, which was increased to 4,831

in 1918. In other words, the percentage of increase in the service has been 331 per cent, whereas the percentage of increase of trials has been but 166 per cent.

* * * * *

The number of letters petitioning for clemency in the case of naval prisoners has greatly increased. All cases that ask for financial assistance are investigated through the Red Cross or Associated Charities, and where examination shows that financial conditions are such as to produce actual destitution the department authorizes assistance. The act of October 6, 1917, known as the war-risk insurance act, authorizes a compulsory allotment in the case of all men having dependent wife or children, and it has been held by the War Risk Insurance Bureau, and acquiesced in by the Navy and War Departments, that this compulsory allotment takes precedence over loss of pay under sentence of court-martial. This holding is founded upon the view that Congress designed the compulsory allotment for the aid of dependents and not as a benefit to the soldier or sailor himself.

The effort is a constant one to make proper allowance for the youth and inexperience of those who make up the greater proportion of the naval service of to-day. While it is essential to bear in mind the fact that an even higher state of discipline and efficiency must be maintained under war conditions than when the country is in a peace status, and that grave duties and responsibilities rest upon even the youngest members of the service in these days, yet clemency is extended whenever the conditions of the case seem to furnish any justification therefor.

To increase efficiency and maintain and improve discipline in the naval service, as well as to promote the welfare of new men now finding themselves in situations of serious responsibility, recommendation has been made that the parents of recruits be requested to impress upon their sons the importance of strict compliance with regulations, obedience to orders, study of conditions, and respect for seniors. It is thought that if this course be followed it will aid greatly in strengthening the hands and lessening the problems of those charged with perfecting our first line of defense.

As a further means to this end measures are being taken to restrict the number of general courts-martial and confine that corrective agency to the very serious offenses, leaving all other misdemeanors to be tried by summary courts-martial and deck courts or settled by the action of the commanding officer. This action will increase the force of the general court as a deterrent and corrective measure and at the same time lessen the number of men lost to the service by being sent to prisons. This policy is particularly appropriate at this time, when ships and stations are manned with youths who have not had the benefits of the usual service at training stations.

From the very beginning of his incumbency the present Judge Advocate General has given his personal thought and attention very specially to this division of his multifold duties. Upon his assumption of office the effects of war conditions upon the discipline of the naval personnel were beginning to be felt in a decided manner. The enormous and rapid expansion of the Navy personnel had brought under the discipline and restrictions of the Navy regulations hundreds of officers and thousands of enlisted men, nearly all of whom were utterly unfamiliar, entirely unacquainted, with naval rules, requirements, and regulations relating to both "do" and "don't." War psychology, mental attitude under stress, mental and physical endurance—all of these were factors entering into the performance or the neglect of duty, the observance or the breach of discipline.

The Judge Advocate General early realized and steadfastly kept in view the need that would be urgently felt to harmonize two outstanding elements arising in the new situation imposed by the war. These were:

(a) The maintenance of discipline, especially afloat, along with the support of officers intrusted with the authority and responsibility of command.

(b) In cases of the infraction of discipline, the serving out of deliberate and temperate justice, taking into account the offtime youth and inexperience of offenders, as well as the same personal characteristics of members of trial courts, and also the abnormal, though entirely unaccountable, tension which is prone to magnify the gravity of offenses and to dictate unusually severe, if not harsh, punishments in time of war.

The Judge Advocate General was and is firmly convinced that the quality of mercy is not strained even under the unusual conditions attendant upon a state of war, and that, after calm consideration, justice may well be tempered

with mercy in very many cases which at first sight appear to merit the infliction of stern punishment. For this reason he recommended the appointment of an advisory or clemency board for the purpose of considering the question of restoration to duty or other form of clemency in such cases as the department might deem worthy of consideration; such a board was appointed about October 1, 1918.

As a result of the pursuit of this policy there was a noticeable falling off of complaints regarding disciplinary punishments in the Navy. During the active states of the war there were less than one-half of 1 per cent of the personnel undergoing imprisonment.

About August 1, 1919, measures were instituted with the object of expediting the trials of those charged with offenses against discipline, and the procedure was established of dropping all cases pending except those of a very grave nature, in which the delay in bringing to trial amounted to 60 days after the charges had been preferred and the offender placed under detention for trial. It is believed that the certainty of prompt punishment is more conducive to discipline than perhaps severe punishment deferred to a time long after the offense.

Under date of August 14, 1919, the Judge Advocate General addressed the following semiofficial letter to the commander in chief of the Atlantic Fleet, Admiral H. B. Wilson, United States Navy:

"MY DEAR WILSON: It is very desirable as far as possible to maintain uniformity in the dispensing of justice in the naval service, and to this end I am inclosing a copy of a letter that I sent to Rodman, which relates to court-martial matters and which I believe will be of interest and service to you.

"Owing to demobilization, loss of enlistment records, etc., there has been an unfortunate delay in some cases of men who have been confined or restricted at navy yards, naval stations, and receiving ships, pending the determination of the disciplinary action to be taken in their cases. Manifestly it is essential that men who have committed alleged offenses should receive an expeditious trial of their cases. In order to relieve and correct the situation, the department directed that under certain conditions men be restored to duty who were awaiting action on their cases. I am inclosing a copy of this letter, which will be of interest to you.

"The proper and expeditious handling of offenses against discipline is one of the important problems connected with personnel, and I am forwarding this correspondence to you in order that you may have information as to some of the recent actions of the department in this regard."

The letter to Admiral Rodman, referred to as inclosed, reads as follows:

JULY 15, 1919.

MY DEAR RODMAN: In consonance with our conversation of several days ago and in conformity with your request, I submit the following suggestions for such consideration as you may desire to accord them.

The only object of punishments by court-martial is the preservation of discipline. The law provides four ways for the punishment of offenders, viz:

1. By the commanding officer.
2. By deck courts.
3. By summary court-martial.
4. By general court-martial.

It is believed that these ways should be resorted to in their order, i. e., that resort should not be had to a deck court until the power of the commanding officer has been exhausted and so on up exhausting the lesser before proceeding to the greater, having due regard to the seriousness of the offense committed.

When it is decided to resort to court-martial, either summary or general, there are certain matters which ought to receive care in advance of trial aside from the preparation of the charges and specifications and one of the most important of these is the determination of the eligibility of the members of the court. In the opinion of this office an officer should be considered ineligible to sit as a member of a court-martial in a trial if he (a) is the officer who convenes the court, or he must have already have formed an opinion upon the merits of the case or he would not have ordered the trial; (b) is a witness for the prosecution (see *Changes, Naval Courts and Boards*, p. 16, sec. 139 (a)); (c) was investigator or member of a board of investigation of matters upon which the specifications are founded; (d) has a personal interest in the case; (e) is not of the proper rank.

The judge advocate of the court should satisfy himself whether any of the above-mentioned disqualifications apply to any of the members, and is so, should immediately inform the convening authority. If any officer ordered as a member of a court-martial is disqualified by reason of the above he should himself immediately communicate the fact to the convening authority. Finally the president or senior member should, when the court meets, and before trial begins, also satisfy himself as to the eligibility of members, and if not so satisfied he should communicate with the convening authority. None of the above abridges the right of the accused to challenge any member.

The accused should always be provided with counsel, preferably of his own choice, but otherwise detailed by the convening authority, but counsel may not properly be forced upon him against his will. Such counsel should, if possible, be an officer of sufficient rank and experience to cause the accused to be satisfied that his interests will be carefully guarded during trial. The primary duty of the judge advocate is the vigorous prosecution of the case, and although in our practice, especially when the accused is without counsel, this officer is required to give the accused his assistance, both in and out of court in preparing the defense, still it is better that the judge advocate be not required to act in such dual capacity if it can be avoided, for, on disputed points, he may be compelled to argue on both sides, a difficult thing to do. The point is, that the accused be satisfied that his defense, if he have any, is properly presented to the court.

Preliminary examination of offenses should be much more thorough than they have been of late. It is the tendency of this office to become more conservative in returning cases to courts-martial for a revision of the findings and sentence if they be legal.

(NOTE.—Court-martial order No. 309 of December 13, 1919, contains the following:)

"The President of the United States, as recently as July 14, 1919, has directed, with regard to this matter, as follows:

"No authority will return a record of trial to any military tribunal for reconsideration of—

"1. (a) An acquittal.

"(b) A finding of not guilty of any specification.

"(c) * * *.

"(d) The sentence originally imposed, with a view to increase its severity, unless such sentence is less than the mandatory sentence fixed by law for the offense or offenses upon which a conviction has been had.

"2. No military tribunal in any proceedings on revision shall reconsider its finding or sentence in any particular in which a return of the record of trial for such reconsideration is herein prohibited. * * * (G. O. No. 88, War Dept., July 14, 1919.)"

"It would appear that the return of a naval case to a naval court for reconsideration of an acquittal, or to impose a more severe sentence upon a conviction, would be in direct contravention of the President's published policy in the premises and of his mandate to courts of the military service. Legislation now pending before Congress provides *inter alia* that cases of acquittal shall not be returned to an Army court-martial for reconsideration (H. R. 367)."

While the power of convening authorities is not in any way abridged by this tendency, it is recommended that the power be used only to prevent a manifest and obvious failure of justice; for this power has, upon occasions, been improperly employed to impose upon a court, under threat of disciplinary action, the will of the convening authority (file 26262-6318), which action naturally called forth unfavorable comment in courts-martial orders.

So the general court-martial should be reserved for the most serious offenses; its moral effect upon discipline should not be minimized by the submission to it of cases that might be settled by an inferior court.

It is the opinion of this office that in awarding the efficiency pennant the state of discipline and the means for its establishment and maintenance (not forgetting the number of courts, desertions, etc.), should be assigned greater weight than in the past.

Inclosed herewith is a schedule of punishments by which this office and the Bureau of Navigation are governing their action upon cases.

Finally, it is recommended that all officers, petty officers, and older men be encouraged to look after recruits carefully, to study their character, and their interests when the exigencies of the service permit, and that a much greater use be made of discharges. Furthermore, when a man seems to be getting into

trouble a great deal, or can not get along without friction and constant reports against him, he should be carefully examined by the medical officer (psychiatrist) in order to determine whether he be normal or not. Many of the enlisted men now in prison (about 60 per cent) should never have been enlisted, and the only proper way to deal with them is to discharge them from the service.

The following is a schedule adopted by the Bureau of Navigation and the office of the Judge Advocate General to be used as a guide to govern in cases wherein the offense is absence without leave. Similar action may be taken in cases of other offenses where the merits of the case indicate that such clemency is warranted.

Absences under 30 days, surrendered; to be tried by summary court-martial, except in aggravated cases.

Absences over 30 days, surrender; to be tried by general court-martial.

Actual restriction not less than two months, with loss of pay remitted in accordance with I-4893. Dishonorable discharge in abeyance.

Absences from 10 to 30 days, delivered; to be tried by general court-martial.

From the form to be used in taking action in the above cases it will be noted that the month's pay and the month's probation with dishonorable discharge in abeyance as well as the full restricted period is indeterminate, so that in taking action on cases, a latitude is available such that varying degrees of mitigation can be taken to cover the merits of the individual cases. Copy of form attached.

The following is a schedule as applied to the classes of cases, as above set forth, to be used as a guide in taking action thereon:

Class.	30 to 50 days.	50 to 60 days.	60 days.
Absence over 30 days, surrender.....	Restriction, 4 months.....	5 months.....	6 months.
Actual restriction, 1 to 2 months.....	{ Pay, 4 months.....	.....do.....	Do.
	{ Probation, 4 months.....	.....do.....	Do.
		10 to 20 days.	20 to 30 days.
Absence, 10 to 30 days, delivered.....	Restriction, 4 to 5 months....	5 to 6 months.	
Actual restriction, 3 to 2 months.....	{ Pay.....	Do.	
	{ Probation.....	Do.	

Apply clemency for record, age, circumstances in this schedule.

In case of delay in trial, deduct from the actual restriction not to exceed one month's reduction.

As indicative of the thought and study given by this office to the maintenance of discipline through the corrective and deterrent agency of courts-martial there is quoted immediately below a letter date April 8, 1919:

"From: The Judge Advocate General.

"To: The Chief of Naval Operations.

"Via: The Chief of the Bureau of Navigation.

"Subject: Policy regarding courts-martial.

"1. I earnestly recommend the adoption of a general policy especially in war time, that would resolve all court-martial cases into a question as to whether or not the accused is guilty of neglect, incompetency, or general culpability. Errors of judgment can not be cured by court-martial punishments, nor can it be pleaded, under such circumstances, that such measures benefit the service in acting as a deterrent.

"2. It can be safely assumed that our people in the service, individually and collectively, are, and have been, putting forth their best energies, giving the best that is in them to their duties, ashore, and afloat. If in spite of all this good work casualties sometimes occur, they can, with a very few exceptions, be attributed to the abnormally difficult conditions brought about by war situations that demand sound judgment and prompt action under extremely trying circumstances.

"3. A danger lies in the too free exercise of the punishing power in making officers forget that 'war can not be successfully conducted without taking risks.' The advocates of the present custom urge that it serves to clear up the

question and in that way frequently acts favorably for the accused, but it is quite possible that pending charges may operate to prevent or, at least, delay, the selection for promotion of officers who afterwards may be 'fully and honorably' acquitted. Courts of inquiry are the means provided for clearing up doubtful cases, and, in the main, serve the purpose very well. A recent communication from a battleship force where this important question was given careful consideration reports the low percentage of four-tenths of 1 per cent of trials by general court-martial. This most commendable achievement shows that discipline can and should be, maintained without frequent resorts to courts. A striking contrast is presented in the reports of two forces, serving in the same waters in which one (the latter), records 17 cases (3 to prison), while the other records 41 cases (38 to prison).

"4. The foregoing relates mainly to the number of courts. In regard to the punishments assigned, so far as officers are concerned I am of the opinion that the corrective and deterrent effect does not wholly depend upon the degree of punishment. The number of turns of the knife in the wound is a detail. The fact that the thrust has been made at all is fatal to the hopes and pride of the naval officer whose whole ambition is to serve faithfully and efficiently without blot upon record.

"5. All these facts should be carefully weighed by the reviewing authorities, who in the security and quiet of their surroundings and having the advantage of position in judging 'what might have been,' may unconsciously and innocently enough fall into an attitude of unnecessary severity."

Upon the subject of the recommendations contained in this letter the following views of the Bureau of Navigation and the Office of Naval Operations, recorded in indorsements, are quoted:

[First indorsement.]

APRIL 21, 1919.

From: Bureau of Navigation.
To: Chief of Naval Operations.
Subject: Policy regarding courts-martial.

1. Forwarded.
2. The recommendation of the Judge Advocate General is concurred in.
3. It is believed that a properly constituted court of inquiry is competent to determine whether or not any culpability exists, and that the recommendation of such a court should in general be approved. In war time commanding officers are often forced to make rapid decisions, and not infrequently an error of judgment has led to disaster, which was subsequently proved to be due to unusual and unexpected conditions and not to any neglect, incompetency, or culpability on the part of the commanding officer concerned.

R. H. LEIGH, *Acting*.

From: Chief of Naval Operations.
To: Secretary of the Navy.
Subject: Policy regarding courts-martial.

1. Forwarded.
2. The recommendation of the Judge Advocate General is concurred in.
3. The lack of distinction that is made at present between errors in judgment and acts in which the offender willfully commits some action which probably renders him subject to court-martial should be rectified.
4. It is recommended that courts-martial for errors of judgment in which culpable inefficiency does not enter, or which do not show incompetency, should not be given.

J. S. McKEAN, *Acting*.

Approved by—

F. D. ROOSEVELT, *Acting Secretary*.

Improvement in the mental, moral, and in its broad sense spiritual, condition of the enlisted personnel has ever been the serious and earnest concern of the Judge Advocate General. After a period of reflection on this very important subject, extending over many months, he, on September 18, 1919, addressed the following letter to the Secretary of the Navy:

From: The Judge Advocate General.

To: The Secretary of the Navy.

Via: The Chief of Naval Operations and the Chief of the Bureau of Navigation.

Subject: Suggestions for improved enlisted personnel.

1. The nature and number of offenses in the service indicate a condition that can be improved only by a change in the method of enlisting and training.
* * * The situation is due partly to the lowering of standards made necessary by the demands of war and partly to the contact of our recruits with Old World or European vices.

* * * * *
If our recruiting officers are to be successful, they must be able to go before the country with the assurance that conditions of life in the Navy regarding associates and influences are equal at least to those prevailing in their home communities. A careful analysis of the kinds of offenses and the history of offenders at Deer Island some time ago disclosed the fact that 60 per cent of prisoners should never have been enlisted.

2. In relation to the foregoing the following suggestions are made:

(a) Establish and maintain a very high standard of admission, physical and moral, investigating with painstaking care the history of the applicants, especially with a view of keeping out all who have served in prisons or reformatories. Do not permit competition among recruiting offices based upon numbers alone.

(b) Continue the process of elimination at training stations where the term of training should be at least four months. These stations should be generously supplied with a full complement of picked officers and men as instructors.

(c) Form a training squadron (to which recruits from training stations should be sent) of modern vessels, to operate as an independent unit, but under regular fleet conditions as to maneuvering, target practice, signaling, and the like. Graduate the recruits from this squadron and transfer to the fleet. This squadron would be available for use on special details in emergencies.

(d) Send all persons duly convicted of the moral offenses hereinbefore referred to, to serve sentence at State prisons, making a sharp distinction in this respect between such offenses and those of a military nature.

3. The objection usually made to the plan outlined above is that "there is no time." As well might the builder urge lack of time as the reason for paying scant attention to the foundation of the monument or bridge. It has been said, and with truth, that "the only shots that count are the shots that hit," and it is equally true that the only crews that count are those that have been sorted and trained. Craddock, in command of a squadron superior in gun power to the enemy, lost off Valparaiso because of his raw, ill-trained crew, while, a few weeks later, Sturdee, free from that handicap, won a notable victory off the Falkland Islands.

Lawrence's famous appeal, made on the day that marked our only naval defeat in the War of 1812, might not have been in vain had it been addressed to a crew of veterans. The advantage of the special squadron over the fleet for training purposes is that in the former the instructors, the mentors, are picked men with one purpose, one object, while in the fleet the recruit picks up what he can from men who may be good, bad, or indifferent, and who are not particularly concerned in the upbringing of recruits. Corrective and deterrent institutions have their uses, but their work can be lessened by the adoption of policies that will reduce the number of their inmates. The remedy lies in these policies. A homely parallel is found in the practice of the physician in not placing reliance upon surface applications for skin diseases. He seeks for the source of the trouble in the blood.

4. If not content with a makeshift, day to day, personnel, we want to build for the future, no better time could be found than the present, full of promise of a long peace, to begin the upbuilding of a Navy on sound principles.

5. My excuse for touching upon a subject which, at first glance, may seem without the jurisdiction of this office, is found in my belief that I should fail in my duty if I did not point out conditions indicated by papers crossing my desk, and at the same time suggest measures of relief.

GEO. R. CLARK.

As far back as the 23d of August, 1918, the Judge Advocate General, imbued with the idea of aiding by observation and suggestion in ameliorating the

condition of recruits and in improving the morale of the service, indited the following letter:

"From: The Judge Advocate General.

"To: The Chief of the Bureau of Navigation.

"Subject: Ignorance of recruits regarding regulations and suggested remedies.

"1. The uniformity of excuses and explanations with reference to desertions and 'over leaves' indicates a more or less widespread ignorance on the part of the recruits (of which the services are now largely composed) concerning the seriousness of their offenses in general and the necessity in particular of overcoming the fear of an early return, the first corrective step that can be made.

"2. As remedies for this condition the following suggestions are made:

"(a) Direct all commanding officers, ashore and afloat, to make renewed systematic efforts, through talks or lectures by chaplains, division officers, and commanding officers to impress upon all hand the gravity of the offenses referred to, which are equivalent, in time of war, to turning their backs to the enemy.

"(b) Send to the next of kin, on enlistment, a circular letter requesting, in the interest of the American people, individually and collectively, that they aid in counseling the recruits to comply with regulations, obey orders, trust their seniors, in order that efficiency and discipline may be maintained."

As recently as the 10th of March of the present year the Judge Advocate General again touched upon this question in a letter addressed to the Secretary of the Navy, as follows:

From: The Judge Advocate General.

To: The Secretary of the Navy.

Via: The Chief of the Bureau of Navigation and the Chief of Naval Operations.

Subject: Recommending general order concerning the instruction of recruits.

1. In view of the character and number of offenses disclosed by court-martial cases reviewed in this office, indicating an ignorance of the gravity of the offenses and the serious consequences, it is suggested that a general order be issued directing commanding officers of forces ashore and afloat to take special measures to teach recruits their duties to themselves and to the service in these matters, laying particular stress upon the handicap in obtaining employment in civilian life that goes with a dishonorable or bad conduct discharge. Appeals for a change in character of discharge are of almost daily occurrence.

2. This is a question of great importance at this time when the Navy is losing its experienced men and replacing them with new and untried recruits.

3. It is believed that the action suggested herein, if taken, will result in a reduction in the number of courts.

Some three months after the signing of the armistice of November 11, 1918, the limitation of punishments assignable by courts-martial, as ordered by the President for time of peace, was reverted to.

As of general and pertinent interest in connection with the foregoing summary there are appended copies of remarks by civilian counsel for the accused in certain court-martial cases, showing the esteem in which the underlying fairness and integrity of naval courts are held; also, some tabular statistics relating to court-martial cases in general.

GEO. R. CLARK.

CASE OF ROBERT L. M'MAHON, LIEUTENANT (M. C.), UNITED STATES NAVY.

Mr. Robichon, of counsel for the accused, made the following oral argument:

"Gentlemen, I have come a long distance in Lieut. McMahon's behalf, but I realize that in courts-martial the less said to them by a civilian counsel, the better. I have waited since 9 o'clock this morning to say a word in behalf of Lieut. McMahon. The evidence of the case has been more than covered by my friend, Mr. Carr, and in everything that he says I must concur. I am not in the habit of attending to drunk cases. My experience has led me to more distinguished cases. Particularly so as I saw in the paper the other day that Secretary Baker had ruled courts-martial were instruments of discipline rather than courts of law. But notwithstanding his ruling, some 12 years ago I remember I tried a case in a court-martial room here. I had a very weak case, and I kept constantly interposing objections until the president of the court told me, 'Counselor, this is a court of justice and common sense and not a court of technicalities.' I still take it and believe that the Navy courts are courts of law and follow the courts of the land and the Constitution, which gives every

man a right to a fair trial. My dealings with courts-martial at the navy yard and Navy Department have always convinced me that they rendered justice. Where courts have, through inexperience, convicted a man, the department has never hesitated to set aside the verdict and restore the man to duty, even though he was guilty in fact, but he had a constitutional or legal right to a presumption of innocence." (File 26251-21338.)

CASE OF LIEUT. C. N. PERKINS, UNITED STATES NAVY.

The counsel for the accused, Mr. F. W. Moore, made the following argument: "May it please the court, I might say that I have heard on many occasions there is a sort of a feeling among naval courts-martials regarding civil attorneys appearing before these bodies, but in 10 years' experience at this yard I have not come in contact with such a feeling; and while it is true that the parties who constitute a court-martial are not, of course, skilled lawyers, yet in the last analysis the Supreme Court of the United States and the acts of Congress have stated and ruled that courts-martial are governed by the same rules of evidence and the same rules of procedure that govern civil courts, and the accused on trial is protected by the same presumption of innocence and also by the constitutional rights and guaranties as the defendant tried in the courts of civil jurisdiction. I am quite satisfied in my own mind that courts-martial attempt to administer and do administer with wonderful success what we might term equitable justice rather than what we call legal justice. It is done with a good intent and accomplished with an end and purpose; and having been 30 years a lawyer and reared in a school that has a high opinion of ethics of the profession, I hope this court will welcome rather than resent the assistance which a proper kind of lawyer can give." (P. 92 of the record.)

Desk courts, fiscal year 1919.

	Navy.	Marine Corps.	Total.	Average for 3 previous years.
Records received and revised.....	15,819	2,156	17,975	8,446
Cases disapproved.....	42	42	42	24
Acquitted.....	298	16	314	108
Average trials per month.....	1,318	179	1,498	704

Summary courts-martial, fiscal year 1919.

	Navy.	Marine Corps.	Total.	Average for 3 previous years.
Records received and revised.....	21,101	2,109	23,210	12,350
Cases disapproved.....	399	49	448	151
Bad-conduct discharges executed.....	1,601	125	1,726	1,056
Acquitted.....	676	79	755	220
Average trials per month.....	1,758	175	1,934	1,029

	Bad-conduct discharge (not placed on probation).		Acquitted.		Disapproved.		Approved exclusive of bad-conduct discharges, acquittals, and disapprovals.		Total cases reviewed.		Total.
	Navy.	Marine Corps.	Navy.	Marine Corps.	Navy.	Marine Corps.	Navy.	Marine Corps.	Navy.	Marine Corps.	
July.....	78	9	47	7	26	2	1,216	120	1,367	138	1,506
August.....	109	13	67	10	44	7	1,490	152	1,710	182	1,892
September.....	91	6	43	3	39	4	1,248	128	1,421	141	1,562
October.....	93	8	49	10	29	5	1,399	175	1,570	198	1,768
November.....	120	18	42	4	27	5	1,497	144	1,686	171	1,857
December.....	139	10	58	6	33	6	1,690	234	1,920	256	2,176
January.....	165	12	75	5	34	4	1,728	176	1,972	197	2,169
February.....	179	16	52	5	20	6	1,543	91	1,794	118	1,912
March.....	180	18	78	9	40	3	2,011	177	2,309	207	2,516
April.....	157	7	57	6	42	3	1,329	127	1,585	143	1,728
May.....	140	5	57	5	35	3	1,766	192	1,998	205	2,203
June.....	180	3	51	9	30	1	1,508	140	1,760	163	1,922
	1,601	125	676	79	399	49	18,425	1,856	21,101	2,109	23,210

Final data concerning men who have been restored to duty from naval prisons after having served one-third of their sentences and whose periods of probation expired during the fiscal year 1919.

	Navy.	Marine Corps.	Coast Guard.	Total.	Percentage.
Number of men who have been restored to duty from naval prisons after having served one-third of their sentences and whose period of probation expired during the fiscal year 1919.....	744	150	3	897	.....
Disposition:					
In good standing in service at large June 30, 1919.....	362	100	2	464	51.74
Honorable discharge.....	2			2	.22
Ordinary discharge.....	39			39	4.35
Medical discharge.....	10	1		11	1.23
Unconditionally restored.....	1	1		2	.22
Died.....	2	2		4	.44
Number successful on June 30, 1919 (not discharged for misconduct).....	416	104	2	522	58.20
Dishonorably discharged.....	30	3		33	3.69
Bad-conduct discharge.....	12	3		15	1.67
In desertion.....	53	7	1	61	6.79
Undesirable discharge.....	3	1		4	.44
Reconfined or convicted again by general courts-martial.....	230	32		262	29.22
Number unsuccessful on June 30, 1919 (by reason of misconduct).....	328	46	1	375	41.80

Final data concerning men who have been tried and convicted by general courts-martial and sentenced to confinement in prison, but in whose cases the department directed that sentence be held in abeyance and that they be placed on probation for one year, which probation expired during the fiscal year of 1919.

	Navy.	Marine Corps.	Coast Guard.	Total.	Percentage.
Number of men who have been tried and convicted by general courts-martial and sentenced to confinement in prison, but in whose cases the department directed that sentence be held in abeyance and that they be placed on probation for one year, which probation expired during the fiscal year of 1919.....	417	54	18	489	.....
Disposition:					
In good standing in service at large June 30, 1919.....	232	45	6	283	57.88
Honorable discharge.....	1	1	3	5	1.03
Ordinary discharge.....	17		3	20	4.09
Medical discharge.....	13	1		14	2.86
Unconditionally restored to duty.....					
Died.....	2			2	.41
Number successful on June 30, 1919 (not discharged for misconduct).....	265	47	12	324	66.26
Dishonorably discharged.....	10		2	12	2.45
Bad-conduct discharge.....	5	1		6	1.23
In desertion.....	26			26	5.32
Undesirable discharge.....	6			6	1.23
Confined for violating probation.....	105	6	4	115	23.51
Number unsuccessful on June 30, 1919 (by reason of misconduct).....	152	7	6	165	33.74

THE MARINE CORPS—ITS RECORD OF PREPAREDNESS AND ACHIEVEMENT.

Secretary DANIELS. The story of the marines in the World War not only gives glory to the Navy and to our country, but has won the gratitude of all who fought for world liberty. From the beginning of my administration as Secretary of the Navy no branch of the Navy has received more encouragement from me than the

marines. What they have done in war and in peace justifies my high opinion of them and their importance in all operations.

Not long after I came into office I issued an order, after conference with Admiral Dewey, making the major general commandant of the Marine Corps an ex officio member of the General Board. I must say that this action was taken contrary to the views of some of the council of aids, who argued that none but line officers should have membership on the General Board. My reply to them was that, inasmuch as the marines made up one-fifth of the Navy, and no landing or other operations were carried on without marine participation, it was of the highest importance that the other members of the General Board should have frequent conferences with the head of the Marine Corps and that the major general of that corps should have full membership instead of merely being called in to furnish information. When I told Admiral Dewey that I had in mind making this addition to the General Board, he said it was an excellent idea and added, "I wonder it was never done before."

From the time the European war began, in 1914, officers and men made especial efforts to improve the efficiency of the corps and excel the high standard it maintained. That they succeeded notably is attested by the fact that no branch of our military service was in a higher state of readiness, as was proved by their services in 1914, 1915, and 1916, as well as their record in France.

Fighting shoulder to shoulder with their comrades of the Army, the marines made a glorious record in France. They took part in the capture of Hill 143, Bouresches and Belleau Wood, in the Aisne defensive, and in recognition of their audacious courage and success the French changed the name of Belleau Wood to the "Bois de la Brigade de Marine"—the wood of the Marine Brigade—a compliment not paid to any other fighting body in the history of war in an old fighting country like France, which shows that they felt that they owed to the marines at Belleau Wood a debt that they could never pay officially, and they changed the name of the wood from Belleau Wood to the Wood of the Marine Brigade.

In the Aisne-Marne offensive (Soissons) the Second Division, of which they were a part, took Beaurepaire Farm and Vierzy, capturing 3,000 prisoners and 66 field guns. Of this counter-attack Gen. Pershing said: "Due to the magnificent dash and power displayed on the field of Soissons by our First and Second Divisions, the tide of war was definitely turned in favor of the Allies." They were employed in the operations in the Marbach sector, near Pont-a-Mousson, and in the St. Mihiel offensives.

It was the Second Division, under command of Gen. John A. Lejeune, United States Marine Corps, which included the marine brigade, that, operating with the Fourth French Army, led the attack on the German defenses in the Champagne and captured Blanc Mont Ridge and St. Etienne. This victory, combined with the operations of the French to the right and left, the orders state "freed Rheims and forced the entire German Army between that city and the Argonne Forest to retreat to the Aisne, a distance of 30 kilometers." Fighting up to the very end of hostilities, taking part in the Meuse-Argonne offensive, and crossing the river Meuse under heavy fire on the morning of November 11, 1918, being estab-

lished on the heights of the far bank of the Meuse, after an advance of 30 kilometers, by the hour the armistice went into effect.

No statement of the achievements of the Navy in the World War would be complete without a large place being given to what was accomplished by the marines. The act of August 29, 1916, increased the authorized strength of the Marine Corps from 9,921 to 14,981 enlisted men, with a corresponding increase in the number of officers, and also authorized the President in emergency, to further increase the corps to 17,400 enlisted men and 693 officers, which he did by Executive order on March 26, 1917. I beg to call your attention to the fact that the President issued the order before the Congress declared war. With the enlargement of the corps, recruiting and training were pushed and its responsible officers did everything possible to make the Marine Corps ready for the great work they were destined to do. The corps, during the war period, grew to a total of 75,000.

I wish to give you a summary of its service in the war which you will find more completely set forth in the excellent history prepared by Maj. Edwin N. McClellan, the able historian of the Marine Corps. I submit this for the record.

(The document last referred to is here printed in the record, as follows:)

THE MARINE CORPS IN THE WORLD WAR.

When war was declared, April 6, 1917, the Marine Corps was composed of 462 commissioned officers, 49 warrant officers, and 13,214 enlisted men on active duty, a total of 13,725, and while the corps was expanded to an actual strength, including reserves, of 75,101 officers and enlisted men, its high standard was never lowered. When these figures are compared with the approximate strength of 3,100 at the end of the Civil War, and of 4,800 at the end of the Spanish War, the growth of the Marine Corps is illustrated.

Despite the fact that on the outbreak of war, 187 officers and 4,546 enlisted men were on duty beyond the continental limits of the United States, and 49 officers and 2,187 enlisted men were serving on board the cruising vessels of the Navy, only five weeks later, on June 14, 1917, the Fifth Regiment of Marines, consisting of 70 officers and 2,689 enlisted men, approximately one-sixth of the enlisted strength of the corps, competently organized and ready for active service, sailed on the *Henderson*, *De Kalb*, and *Hancock* from the United States, forming one-fifth of the first expedition of American troops for service in France.

This regiment was soon joined by the Sixth Regiment and the Sixth Machine Gun Battalion of Marines, and the Fourth Brigade of Marines was organized, and as one of the two Infantry brigades of the Second Division of Regulars engaged in actual battle in no less than eight distinct operations in France, of which four were major operations.

The French Army recognized the splendid work of the Fifth and Sixth Regiments of Marines by citing them no less than three times in Army orders for achievements in the Chateau-Thierry sector, in the Aisne-Marne (Soissons) offensive, and in the Meuse-Argonne (Champagne). The Sixth Machine Gun Battalion was similarly cited for its work in the Chateau-Thierry sector and the Aisne-Marne (Soissons) offensive. The Fourth Brigade received a similar citation for its work in the Chateau-Thierry sector.

Within a year after the outbreak of war the Marine Corps placed in France about as many enlisted men as there were in the corps when war was declared.

During the month of June, 1918, when the battle deaths around Hill 142, Bouresches, Belleau Wood, and Vaux of Americans attached to the Second Division amounted to 1,811 (of which at least 1,062 were marines) and the nonfatal casualties to 7,252 more (of which 3,615 were marines), the legislative strength of the Marine Corps was but 1,323 officers and 30,000 enlisted men; the actual strength on June 30, 1918, including reserves, was 1,424 officers and 57,298 enlisted men, and of this total about 300 officers and 14,000 enlisted men were in France. These latter figures include those marines who suffered casualties in the battles of June, 1918.

Approximately 30,000 marines were sent overseas to join the American Expeditionary Forces, and 1,600 for naval duty ashore.

During the war a great many additional marine detachments were detailed to guard radio stations, naval magazines, ammunition depots, warehouses, cable stations, and for other naval activities, and the detachments already established were largely augmented. No call was made for additional marines for naval purposes that was not fully met, and this is of especial interest as the Marine Corps is essentially a part of the Naval Establishment, and its first duty is to fill all naval needs and requirements.

The Marine Corps, while maintaining the Fourth Brigade of Marines, a total of 258 officers and 8,211 enlisted men, that fought in eight battle operations suffering approximately 12,000 casualties, placed and maintained the Fifth Brigade of Marines of the same strength in France; supplied the commanding general of the Second Division, and many officers on his staff; furnished a considerable number of officers to command Army units of the Second and other divisions, and for staff and detached duty throughout the American Expeditionary Forces; participated in the naval aviation activities in France and in the Azores; and during the period of the war succeeded in performing in a highly satisfactory manner the naval duties required of it, including the maintenance of two brigades of prewar strength standing by to protect the Mexican oil fields, and as an advanced base force in Philadelphia; one in Cuba; one in Santo Domingo, and one in Haiti; administered and officered the Haitian Gendarmerie and Guardia Nacional Dominicana; as well as providing efficient marine detachments for numerous naval vessels, and maintaining garrisons at the numerous navy yards and naval stations in the United States and in the Virgin Islands; Guantanamo Bay, Cuba; Pearl Harbor, Hawaiian Islands; Guam; Cavite and Olongapo, P. I.; Managua, Nicaragua; Peking, China; San Juan, P. R.; London, England; Cardiff, Wales; Paris, France; and the Azores; and supplied many officers and enlisted men for special and detached duty at home and abroad.

CORPS INCREASED FROM 10,265 IN 1916 TO 72,963 IN 1918.

The naval appropriation act of August 29, 1916, increased the authorized strength of the Marine Corps from 344 officers and 9,921 enlisted men to 597 officers and 14,981 enlisted men, and the President was authorized in an emergency to further increase the corps to 693 officers and 17,400 enlisted men, which he did by Executive order on March 26, 1917.

On April 6, 1917, Congress declared "that a state of war exists between the United States and the Imperial German Government" and one and one-half months later, on May 22, 1917, temporarily increased the authorized strength to 1,197 commissioned officers, 126 warrant officers, and 30,000 enlisted men. Finally, the act of July 1, 1918, temporarily increased the Marine Corps to 3,017 commissioned officers, 324 warrant officers, and 75,500 enlisted men, which is the maximum strength ever authorized for the Marine Corps. Of this number 17,400 were permanent and 58,100 temporary. In addition to the above, the act of August 29, 1916, which established the Marine Corps Reserve, permits the enrollment of reserves, without limit as to number, and on April 6, 1917, there were enrolled, subject to call to active duty, three Reserve commissioned officers, 24 national naval volunteer officers, 36 Reserve enlisted men, and 928 enlisted National Naval Volunteers. There were also available for recall to active duty 65 Regular retired commissioned officers, 1 Regular retired warrant officer, and 210 Regular retired enlisted men.

On April 6, 1917, the strength of the Marine Corps on active duty was 511 officers and 13,214 enlisted men; total, 13,725. On November 11, 1918, it had 2,474 officers and 70,489 men on active duty, a total of 72,963, or nearly fivefold increase during the war period.

On December 11, 1918, the Marine Corps attained its maximum strength on active duty, which was distributed as follows:

Regular commissioned officers.....	1, 678
Retired officers on active duty.....	44
Reserve commissioned officers.....	452
Regular warrant officers.....	257
Reserve warrant officers.....	31
Regular enlisted men.....	65, 666
Reserve enlisted men.....	6, 704
Female reservists.....	269

Total..... 75, 101

WHERE MARINES SERVED DURING THE WAR.

During the period of the war marines served ashore and afloat all over the world. The following tables show where they were located at the outbreak of the war and on the date the armistice became operative:

Location of marines on Apr. 6, 1917, and Nov. 11, 1918.

Location.	Apr. 6, 1917.			Nov. 11, 1918.		
	Officers.	Men.	Total.	Officers.	Men.	Total.
American Expeditionary Forces.....				1 857	23,693	24,550
Azores.....				11	188	199
China.....	8	268	276	11	271	282
Cuba.....	16	580	596	99	2,310	2,409
England (A. E. F.). See American Expeditionary Forces.....						
England (not A. E. F.).....				2	60	71
France (A. E. F.). See American Expeditionary Forces.....						
Guam.....	9	363	392	14	366	380
Haiti.....	62	622	684	60	325	385
Hawaiian Islands.....	3	137	140	10	466	476
Holland (The Hague).....					3	3
Nicaragua.....	3	111	114	5	118	123
Philippine Islands.....	7	272	279	12	582	594
Porto Rico (San Juan).....				1	77	78
Samoa.....				1		1
Santo Domingo.....	68	1,856	1,925	84	1,879	1,963
Sea duty.....	49	2,187	2,236	64	2,009	2,073
Spain (Madrid).....					1	1
United States.....	183	6,481	6,664	1,029	36,004	37,033
Virgin Islands.....	10	317	327	25	583	608
Total.....	419	13,214	13,633	2,431	70,489	72,920

¹ Including enlisted men commissioned in Europe.

Marine detachments also served on board our battleships and on many of the cruisers which acted as escorts for the vessels transporting Army troops to Europe.

HOW OFFICERS WERE OBTAINED AND TRAINED.

The outbreak of war made it essential that the corps should be filled as far as practicable with officers who had had prior military experience and training, and immediate steps were taken to arrange for the designation and examination of Marine Corps warrant officers, noncommissioned officers, graduates of military colleges, and other civilians with military experience and training.

The appointment of officers subsequent to the declaration of war up to October, 1917, both for the permanent service and for the temporary increase authorized for the duration of the war, were drawn from the following sources:

Graduates of the Naval Academy.....	6
Former officer of the Marine Corps.....	1
Former graduate of the Naval Academy.....	1
Warrant officers and paymaster's clerks of the Marine Corps.....	89
Meritorious noncommissioned officers of the Marine Corps.....	122
Reserve officers and National Naval Volunteers.....	36
Graduates of military colleges.....	284
Other civilians with prior military or naval experience or training.....	136
Other civilians passing the competitive examination held July 19, 1917.....	86

In the summer of 1917 it was decided that no further appointments of civilians to the rank of second lieutenant would be made during the continuance of the war, and that all vacancies occurring in that grade, not required for graduates of the Naval Academy, would be filled by the promotion of meritorious noncommissioned officers. This decision was promulgated to the service in Marine Corps Orders, No. 25 (Series 1917).

In carrying out this policy orders were issued to commanding officers of every post and station, both at home and abroad, as well as those on board ship, to the effect that all commissioned officers would be taken from the ranks, and that the number of men to be designated from each post to attend the training camp

would be a certain percentage of the number of men stationed at such post or station. Each commanding officer was ordered to convene a board or three officers qualified for entry to the officers' training camp at Quantico, Va. Some 600, the limit that could be accommodated, were selected for the first camp, which was established at Quantico in April, 1918. The candidates were given a rigid course of instruction and intensive training. Some of the studies pursued were: Infantry drill regulations, manual of interior guard duty, bayonet training, bombing, minor tactics, military engineering, military topography, administration, military law, lectures on gas and on sea duty, and a practical course on the rifle range.

The training at these camps was most intensive and thoroughly competitive, so that a man's position depended entirely upon himself. The material to draw from was so excellent that comparatively few of those who entered the camps failed to receive commissions, and many of the young men so commissioned who were assigned to duty abroad demonstrated that their selection was fully justified.

Many officers also received special training in the schools of the overseas depot at Quantico, Va.

The majority of the members of the first officers' training camp were graduated in July, 1918. Three hundred of this camp were commissioned on July 15, 1918, and 91 on August 15, 1918.

The same proportionate allowance that was made in the United States was also designated for the marine serving in France, and similar means were instituted there to carry out the policy of selection of men for the training camp. As a result of the camp established over there, 164 second lieutenants were appointed from the Fourth Brigade in France.

The second officers' training camp was opened at Quantico, Va., on August 20, 1918, and of the 570 men enrolled 432 were graduated December 16, 1918, and 172 from the Army candidate school in France, who, immediately upon graduating, were enrolled as second lieutenants (provisional) in class 4, Marine Corps Reserve, and subsequently appointed temporary second lieutenants in the Marine Corps. There were 235 graduated in July, 1919, from the third officers' training camp who were enrolled as second lieutenants (provisional) in class 4, Marine Corps Reserve, and assigned to inactive duty, as were also the 48 graduates of the Army candidate school in France.

Sixty-nine officers were graduated from the Marine Corps school of machine-gun instruction at Utica, N. Y.

TRAINING OF ENLISTED MEN IN THE UNITED STATES.

The Marine Corps system of training for the enlisted personnel during the war was thorough and excellent in every respect.

For a short time after the outbreak of the war temporary recruit depots were opened at the navy yards at Philadelphia, Pa., and Norfolk, Va., with a capacity of 2,500 at the former and 500 at the latter. These were used until the regular recruit depots at Paris Island, S. C., and Mare Island, Calif., could accommodate the recruits. These two recruit depots were greatly enlarged, both in size and scope, and were soon able to meet all demands made upon them.

At the beginning of the war the course of recruit instruction at the recruit depot, Paris Island, was of eight weeks' duration, and with but very few exceptions every recruit passing through this depot received eight weeks' instruction. At the Mare Island recruit depot the recruits received 12 weeks' training from April 6 to 28, 1917; 9 weeks from April 29, 1917, to June 21, 1918; and 8 weeks from June 22 to November 11, 1918.

The following table gives a list of the special schools at the Paris Island recruit depot and the number of graduates from each during the period between the outbreak of war and the date the armistice became operative:

Noncommissioned officers' school.....	2, 144
Field music school.....	493
Radio school.....	143
Signal school.....	232
Band school.....	247
Clerical school.....	236
Pay school.....	78
Cooks' and bakers' school.....	150
Total.....	3, 723

The following table illustrates what was accomplished by the two recruit depots:

Depot.	In training.		Maximum strength of post.	Maximum number of recruits at one time.	Total recruits handled.	Maximum capacity.
	Apr. 6, 1917.	Nov. 11, 1918.				
Parris Island.....	835	4,104	16,601	13,286	46,202	13,060
Mare Island.....	358	1,143	2,799	2,470	11,901	3,000
Total.....	1,193	5,247	19,400	15,756	58,103	16,060

After leaving the recruit depots at Paris Island and Mare Island, advanced training was given the men at Quantico, Va. This training was most intensive, and as a result all the organizations which were trained there attained a high state of efficiency. It was made to approximate as nearly as practicable the real service which the men would have in the American Expeditionary Forces in France.

The first troops arrived at the marine barracks, Quantico, Va., on May 18, 1917. The maximum enlisted strength was 9,849 on September 12, 1918. The maximum number of officers present at one time was 484—on August 16, 1918. The strength on November 11, 1918, was 329 officers and 8,798 enlisted men. From May, 1917, to November 11, 1918, approximately 1,000 officers and 40,000 enlisted men passed through Quantico.

In addition to giving the enlisted men general training at Quantico in preparation for overseas and other duty, the overseas depot was established on May 19, 1918, for the double purpose of organizing and training units of the Marine Corps for service with the American Expeditionary Forces.

Prior to the organization of this depot, the Fifth and Sixth Regiments, the Sixth Machine Gun Battalion, the Base Battalion of the Fifth Regiment, and two replacement battalions had left the United States and had become part of the American Expeditionary Forces.

The overseas depot consisted of an administrative staff and the various sections, as follows: (a) The specialists' schools for the technical training of the Infantry and machine gun and the coordination of these specialists' arms; (b) the tactical department for the instruction and training of overseas units in new tactical principles; (c) the enlisted staff school, for the training of first sergeants, mess sergeants, cooks, company clerks, armorers, etc. Two French and four Canadian officers, who had abundant experience in the fighting in Europe, were assigned, as advisors of the commanding officer.

About 85 per cent of the troops forming the detachments arriving at the overseas depot for service in France had undergone not less than 8 nor more than 12 weeks' training at the regular recruit depots of the Marine Corps. This facilitated the more advanced and specialized training they were to receive at the overseas depot.

The following units were organized by the overseas depot: Third, Fourth, Fifth, Sixth, Ninth, Tenth, Eleventh Separate Battalions; Second and Third Machine Gun Battalions; Fifth Brigade Machine Gun Battalion; Second and Third Separate Machine Gun Battalions; Eleventh and Thirteenth Regiments—total, approximately 16,000 officers and enlisted men. The Seventh and Eighth Separate Battalions were organized and sent to France from marine barracks, Paris Island, S. C.

In addition to the training described above, 69 officers and 2,084 enlisted men, a total of 2,153, graduated from the Marine Corps School of Machine-Gun Instructions at Utica, N. Y.

TRAINING IN FRANCE.

On June 27, 1917, the first battalion of the Fifth Regiment landed in France and on July 3, 1917, the entire Fifth Regiment was under canvas on French soil. From that date every effort was made to train the men and officers. Elements of the Fifth Regiment trained as a part of the First Division of Regulars from July 15, 1917, to September, 1917, in the Gondrecourt training area. From September, 1917, on, the training of the available units of the Fourth Brigade

as a unit of the Second Division of Regulars was conducted in the Bourmont training area.

Until February, 1918, the training of the marines in France was handicapped by the fact that units of the brigade were engaged in duties along the line of communications (Services of Supply), one company and a battalion commander being absent in England until March. It was not until the middle of February that the Fourth Brigade of Marines (less the company in England) was conducting its training as a brigade with any degree of satisfaction. Owing to the well-trained condition of the individual marine this condition did not vitally affect his professional ability, as was so distinctly shown by his later accomplishments.

The Fourth Brigade continued its training in the Bourmont training area until the middle of March, 1918, when it entered the front-line trenches in the Verdun sector.

THE FOURTH BRIGADE OF MARINES.

The Fourth Brigade of United States Marines was composed of the Fifth and Sixth Regiments of Marines and the Sixth Machine Gun Battalion of Marines.

From June 27 to the middle of September, 1917, the Fifth Regiment was a unit of the First Division of Regulars. Although the Fifth Regiment was the only organization of marines in France at the time, the Fourth Brigade was formed on October 23, 1917, when Col. Charles A. Doyen cabled acceptance of his appointment as brigadier general. From October 26, 1917, to August 8, 1919, the Fourth Brigade was a part of the Second Division of the Regulars, except from October 20-23, 1918, when the brigade was provisionally at the disposal of the Ninth French Army Corps, in the vicinity of Leffincourt. On August 8, 1919, the brigade was transferred back to the naval service.

On May 29, 1917, in accordance with directions issued by the President, the Secretary of the Navy directed the major general commandant "to organize a force of marines to be known as the Fifth Regiment of Marines, for service with the Army as a part of the first expedition to proceed to France in the near future." The Fifth Regiment was accordingly organized at the navy yard, Philadelphia, Pa., on June 7, 1917, with Col. Charles A. Doyen in command, and Maj. Harry R. Lay as adjutant.

Gen. Pershing and his staff, accompanied by two marine officers, preceded the first expedition to France, sailing late in May, 1917, from the United States.

The final report of the American commander in chief includes the following:

"The offer by the Navy Department of one regiment of marines to be re-organized as infantry was accepted by the Secretary of War, and it became temporarily a part of the First Division."

On June 14, 1917, the first expedition of American troops left the United States for France and the Fifth Regiment of Marines embarked on the naval transports *Henderson* and *Hancock*, and the auxiliary cruiser *De Kalb* (former *Prinz Eitel Friedrich*), formed approximately one-fifth of it. The fourth group, including the *Hancock*, did not sail until June 17, 1917.

The orders received by the convoy commander on the day prior to sailing read in part: "A military expedition is to be embarked on the above-named transports, augmented by a regiment of marines embarked in naval vessels, for transportation to a destination already communicated."

The *De Kalb* was in group 1, the *Henderson* in group 2, and the *Hancock* in group 4; all were part of the escort and not the convoy.

The *De Kalb* arrived at St. Nazaire, France, on June 26, 1917, the *Henderson* on June 27, and the *Hancock* on July 2. On June 27 the commanding officer of the Fifth Regiment reported to the commanding general, First Division, American Expeditionary Force, and from that date the Fifth Regiment was considered as being detached for service with the Army by direction of the President.

On June 27 the First Battalion, less the Fifteenth Company, which joined the battalion the following day, disembarked from the *De Kalb* and occupied quarters ashore. On this date Lieut. Col. Logan Feland joined the Fifth Regiment. On June 28 the Second and Third Battalions went ashore from the *Henderson* for a practice march, and the following day tents were erected for the regiment on a camp site a short distance outside of St. Nazaire. By 8 p. m. July 13, 1917, the entire Fifth Regiment was ashore under canvas.

On July 15, 1917, the Fifth Regiment, less the Third Battalion, which remained behind to perform guard duty, and other detached units and officers, proceeded to the Gondrecourt training area, and was stationed in Menaucourt and Naix.

On August 1 Gen. Pershing inspected the battalions at the two towns where they were billeted. On August 15 the First Division, including the Fifth Regiment of Marines, was reviewed by its commanding general on a plateau 12 miles distant from the training area.

On August 19 Gen. Pershing and Gen. Petain, commander in chief of all the French forces, inspected the marines as a unit of the First Division. Gen. Petain congratulated the colonel of the regiment on the splendid appearance of its officers and men, as well as the cleanliness of the towns.

Every opportunity was taken advantage of to perfect the regiment for combat duty, but this work was handicapped by the fact that many units of the regiment were scattered along the line of communications performing duty of a necessary but of a nontraining nature. One company and one battalion commander left the regiment on September 22, 1917, for duty in England, and did not rejoin the regiment until March 11, 1918. Many other officers and men were placed on detached duty.

On September 24 and 25, 1917, that part of the Fifth Regiment available for training arrived in the Bourmont training area and was stationed at Damblain and Breuvannes.

The following letter dated November 10, 1917, addressed by Gen. Pershing to the major general commandant, is both complimentary and explanatory as to why the marines were used along the line of communications:

"Your marines having been under my command for nearly six months, I feel that I can give you a discriminating report as to their excellent standing with their brothers of the Army and their general good conduct. I take this opportunity, also, of giving you the reasons for distributing them along our line of communications, which, besides being a compliment to their high state of discipline and excellent soldierly appearance, was the natural thing to do, as the Marine Regiment was an additional one in the division and not provided for in the way of transportation and fighting equipment in case the division should be pushed to the front. When, therefore, service of the rear troops and military and provost guards were needed at our base ports and in Paris it was the Marine Regiment that had to be scattered, in an endeavor to keep the rest of the organized division intact.

"I have been obliged to detach a number of your officers as assistant provost marshals in France and in England, all of which, I take it, you will agree with me was highly complimentary to both officers and men and was so intended. I can assure you that as soon as our service of the rear troops arrive, including a large number of officers and men for the specific duties now being performed by your men, the marines will be brought back once more under your brigade commander and assigned to the duties which they so much desire in the Second Regular Division under Gen. Bundy.

"It is a great pleasure to report on your fine representatives here in France."

Col. Charles A. Doyen was in command of the Fifth Regiment from the date of its organization on June 7, 1917, to October 29, 1917; and Lieut. Col. Hiram I. Bearss from October 30, 1917, to December 31, 1917. Col. Wendell C. Neville, having arrived on board the *De Kalb* at St. Nazaire, France, on December 28, 1917, reported to the Fourth Brigade for duty on January 1, 1918, and on that date assumed command of the Fifth Regiment, continuing in command until July, 1918.

The Sixth Machine Gun Battalion of Marines was organized at the Marine Barracks, Quantico, by order of the major general commandant on August 17, 1917. The battalion was designated the First Machine Gun Battalion, but on January 20, 1918, after arrival in France, was renamed the Sixth Machine Gun Battalion. On December 14, 1917, the battalion sailed from New York on the *De Kalb*, arriving at St. Nazaire, France, December 28. On January 3, 1918, the battalion arrived at Damblain in the Bourmont training area and began training with headquarters at Germain-Villiers.

Maj. Edward B. Cole was in command of the Sixth Machine Gun Battalion of Marines from the date of its organization until June 10, 1918, when he received a mortal wound.

On August 4, 1917, in accordance with directions issued by the President, the Secretary of the Navy directed the major general commandant "to organize a force of marines, to be known as the Sixth Regiment of Marines, for service with the Army in France," and the regiment was organized as directed.

On September 23, 1917, the First Battalion of the Sixth Regiment sailed on the *Henderson* from New York and landed at St. Nazaire, France, on October 5. On October 17 the Seventy-third Machine Gun Company, headquarters, and supply companies, and Col. Albertus W. Catlin, commanding officer of the Sixth Regiment, with his staff, sailed from Philadelphia, Pa., on the *De Kalb*, and from New York on October 18, arriving at St. Nazaire, France, on November 1. On October 31 the Third Battalion of the Sixth Regiment sailed from New York on board the *Von Steuben*, and anchored at Brest, France, on November 12, 1917. On January 24, 1918, the Second Battalion of the Sixth Regiment sailed on the *Henderson* from New York, and arrived at St. Nazaire February 6, 1918, and with the arrival of this last battalion the entire Sixth Regiment of Marines was in France.

On October 23, 1917, the Fourth Brigade of Marines was organized, with Brig. Gen. Charles A. Doyen in command. He continued in command until May 7, 1918.

On October 26, 1917, Brig. Gen. Doyen, United States Marine Corps, assumed command of the Second Division as its first commanding general, and announced his staff in General Orders, No. 1, with station at Bourmont, Haute-Marne, serving as such until relieved by Maj. Gen. Omar Bundy, United States Army, who assumed command November 8, 1917.

Like the Fifth Regiment, the Sixth Regiment spent several months performing the necessary but undesired duties along the line of communications. On January 12, 1918, Col. Albertus W. Catlin established headquarters for the Sixth Regiment at Blevaincourt, in the Bourmont training area. The Third Battalion arrived in this area on January 12, the headquarters units the same date, the First Battalion during January, 1918, and the Second Battalion on February 10, 1918.

Therefore, on February 10, the Fourth Brigade of Marines was in the Bourmont training area intact, with the exception of one company on duty in England, training industriously as an Infantry brigade of the Second Division. While the brigade had been organized on October 23, 1917, and had actually functioned as a brigade with elements of all three of its units present from January 12, 1918, it was not until February 10 that the brigade organization was perfected.

FIFTH BRIGADE OF MARINES.

On September 5, 1918, the major general commandant directed the post commander, Marine Barracks, Quantico, Va., to organize brigade headquarters of the Fifth Brigade, United States Marine Corps.

This brigade was accordingly organized and was composed of the Eleventh and Thirteenth Regiments and the Fifth Brigade Machine Gun Battalion. The companies of the Fifth Brigade were designated by letters and not by numbers.

Brig. Gen. Eli K. Cole was designated as the brigade commander, and on September 15, 1918, he and the brigade staff sailed from Hoboken, N. J., on board the *Von Steuben*, arriving at Brest, France, on September 24, 1918.

The Thirteenth Regiment left the overseas depot at Quantico, Va., on Friday, September 13, 1918, and on September 15, 1918, sailed from Hoboken, N. J., on board the *Henderson* and *Von Steuben*, arriving at Brest, France, on September 25, 1918.

On September 29, 1918, Eleventh Regiment, headquarters, and the First Battalion sailed on the *De Kalb* from Philadelphia, Pa., and arrived at Brest, France, on October 13, 1918. On October 16, 1918, the Second and Third Battalions of the Eleventh Regiment sailed from Brooklyn, N. Y., on board the *Agamemnon* and *Von Steuben*, and arrived at Brest, France, on October 25, 1918.

On October 28, 1918, the Fifth Brigade Machine Gun Battalion sailed from South Brooklyn, N. Y., on board the *Henderson*, and arrived at Brest, France, on November 9, 1918. With the arrival of this unit the entire Fifth Brigade was in France.

AVIATION UNITS.

On January 21, 1918, the First Marine Aeronautic Company arrived at naval base No. 13, Ponta Delgado, Azores.

On July 30, 1918, the First Marine Aviation Force (less Squadron D) disembarked at Brest, France, and formed the day wing of the northern bombing group. Squadron D joined the day wing in October, 1918.

MARINE DETACHMENTS FOR NAVAL BASES.

On January 21, 1918, and on July 20, 1918, detachments for the naval base No. 13 arrived at Ponta Delgado, Azores.

On September 30, 1918, the detachment for naval base No. 29 arrived at Cardiff, Wales.

On December 29, 1918, the detachment for the naval forces in France, staff office, Paris, France, landed at St. Nazaire, France.

REPLACEMENTS FOR AMERICAN EXPEDITIONARY FORCES.

The following table will show the names of the replacement organizations sent to the American Expeditionary Forces, dates of sailing and arrival, and names of vessels:

Name of organization.	Date embarked in United States.	Date disembarked in France.	Name of vessel.
Fifth Regiment Base detachment.....	July 31, 1917	Aug. 22, 1917	Henderson.
Twelfth and Twenty-sixth companies.....	Dec. 8, 1917	Dec. 31, 1917	De Kalb.
First Replacement Battalion.....	Feb. 5, 1918	Feb. 25, 1918	Von Steuben.
Second Replacement Battalion.....	Mar. 14, 1918	Mar. 27, 1918	Henderson.
Third Replacement Battalion.....	Apr. 22, 1918	May 7, 1918	Do.
Casual Company.....	do.	do.	Do.
First Machine Gun Replacement Battalion.....	May 26, 1918	June 8, 1918	Do.
First Casual Replacement Battalion.....	do.	do.	Do.
Second Casual Replacement Battalion.....	June 30, 1918	July 9, 1918	Do.
Third Separate Battalion.....	Aug. 13, 1918	Aug. 26, 1918	Do.
Fourth Separate Battalion.....	do.	do.	Do.
Fifth Separate Battalion.....	Aug. 17, 1918	Aug. 27, 1918	Von Steuben.
Sixth Separate Battalion.....	do.	do.	Do.
First Separate Machine-Gun Battalion.....	Aug. 21, 1918	Sept. 2, 1918	De Kalb.
Seventh Separate Battalion.....	Oct. 20, 1918	Nov. 3, 1918	Pocahontas.
Eighth Separate Battalion.....	do.	do.	Do.
Ninth Separate Battalion.....	Oct. 27, 1918	Nov. 9, 1918	Henderson.

In addition to the above the Twelfth Replacement Battalion sailed from the United States on board the *Hancock* in June, 1919, arrived in France in June, 1919, and joined the American Expeditionary Forces.

NUMBER OF MARINES SAILING FROM THE UNITED STATES TO EUROPE FOR DUTY WITH THE AMERICAN EXPEDITIONARY FORCES AND FOR SHORE DUTY WITH THE NAVAL SERVICE.

There were 834 officers, not including observers, and 30,481 enlisted men, or a total of 31,315 marines, sent overseas for shore duty with the American Expeditionary Forces and naval service. The following tables give details:

For duty with American Expeditionary Forces.

Month of departure from United States.	Officers.	Enlisted men.	Total.
May, 1917.....	12		2
June, 1917.....	70	2,689	2,759
July, 1917.....	29	1,054	1,083
September, 1917.....	27	1,045	1,072
October, 1917.....	45	1,536	1,581
December, 1917.....	23	637	660
January, 1918.....	31	1,031	1,062
February, 1918.....	24	1,041	1,065
March, 1918.....	23	1,034	1,057
April, 1918.....	22	1,284	1,306
May, 1918.....	24	1,565	1,589
June, 1918.....	6	751	757
August, 1918.....	32	4,362	4,394
September, 1918.....	172	5,275	5,447
October, 1918.....	132	5,809	5,941
Total.....	662	29,113	29,775

¹ Accompanied Gen. Pershing.

Sixty officers of the Medical Corps, 12 officers of the Dental Corps, 500 enlisted men of the Medical Corps, and 11 chaplains of the Navy, not included in the above figures, were sent to France and served with the Marines in the American Expeditionary Forces.

In addition to the above, the Twelfth Replacement Battalion, consisting of 9 officers and 500 enlisted men, joined the American Expeditionary Forces in June, 1919.

For duty with Naval Service ashore (Aviation personnel included).

Month of departure from United States.	Officers.	Enlisted men.	Total.
December, 1917.....	2	59	61
January, 1918.....	13	172	185
June, 1918.....	2	75	77
July, 1918.....	107	654	761
August, 1918.....	4	120	124
September, 1918.....	44	288	332
Total.....	172	1,368	1,540

OTHER OPERATIONS OF THE MARINES.

While the battle operations of the Fourth Brigade as an Infantry brigade of the Second Division of Regulars overshadowed all others taken part in by Marine Corps personnel, those operations were by no means the only ones participated in by officers and men of the Marine Corps.

The commanding general of the Second Division from early in August, 1918, to the date of demobilization, and several officers on his staff, were Marine officers. Officers of the Marine Corps were at various times attached to the First, Second, Third, Fourth, Sixth, Twenty-sixth, Thirty-second, Thirty-fifth, Ninetieth, and Ninety-second Divisions, and in some cases engaged in operations with them. Brig. Gen. John A. Lejeune assumed command of the Sixty-fourth Infantry Brigade of the Thirty-second Division then in the front line on the Swiss border in the Suarce sector, on July 5, 1918. He was in command of this brigade on July 22, 1918, when it was withdrawn from the above-mentioned sector, and continued in command until July 25, 1918, when he left to command the Fourth Brigade of Marines. Between July 5, 1918, and July 22, 1918, Brig. Gen. Lejeune, in addition to the Sixty-fourth Brigade, commanded three French Infantry regiments. Col. Robert H. Dunlap was in command of the Seventeenth Field Artillery Regiment of the Second Field Artillery Brigade, Second Division, from October 30, 1918, to February, 1919. Col. Hiram I. Bearss commanded the One hundred and second Regiment of the Fifty-first Infantry Brigade, Twenty-sixth Division, in the St. Mihiel offensive. Col. Frederic M. Wise commanded the Fifty-ninth Regiment of the Eighth Infantry Brigade, Fourth Division, from September 5, 1918, to January 4, 1919, during which period he participated in the St. Mihiel and Meuse-Argonne operations. From January 1, 1919, to February 9, 1919, Col. Wise commanded the Eighth Infantry Brigade of the Fourth Division.

A few marine officers and enlisted men engaged in Army aviation operations and suffered casualties. About 20 marine officers were sent to France as observers and as such participated in operations with American, French, and British forces. Marine aviation personnel served in France as the Day Wing of the Northern Bombing Group of the Navy. Marine flyers served with Squadrons 213 (pursuit squadron), 217, and 218 (bombing squadrons), Royal Flying Corps of England; and with pursuit, observation, and bombing squadrons of the French Flying Corps. Quite a few casualties were suffered by the marine aviation personnel.

The First Marine Aeronautic Company, naval base No. 13, Ponta Delgada, Azores, equipped for water flying only, performed patrol duty from January, 1918, until November 11, 1918.

The Marine Aviation Section, naval air station, Miami, Fla., performed patrol duties in the Florida Straits in connection with the Navy from July, 1918, until the date the armistice went into effect.

Marine detachments served on board all the American battleships attached to the British Grand Fleet and also on the American battleships which based

at Castletown Berehaven, Bantry Bay, Ireland. Marines also served on board many of the cruisers which escorted the vessels transporting Army troops to Europe. They were also attached to many other naval vessels such as the *Brooklyn*, *Helena*, and *Wilmington*, in China and Siberian waters, at one time landing at Vladivostok in conjunction with other naval forces; on the *Galveston* on the Murman Coast; and on the *Pittsburgh* in South American waters. Marines were also on the *San Diego* when that vessel was sunk, and the *Minnesota* when that ship was damaged by German mines. Marines were in intimate contact with the Germans in Guam and Philadelphia in conjunction with the Navy in the first hours of the war.

One brigade of marines was held in readiness in Texas for possible trouble in Mexico which might endanger the Allies' oil supply. Another was scattered throughout the island of Cuba. Large detachments of marines were stationed in the Azores and Virgin Islands in the nature of advanced base forces, while an advanced base force at Philadelphia was available at all times for naval needs.

Marine forces were also stationed in Guam, Philippine Islands, Peking, Pearl Harbor, and Nicaragua, and they assisted materially, under the limited conditions, in the war.

Active operations were conducted in Haiti and Santo Domingo against bandits during the period of the war by marine forces, the Haitian Gendarmerie, and the Guardia Nacional Dominicana, the two latter organizations being composed of natives and administered and officered by the marine and Navy personnel. Casualties were suffered by marines in the operations in Santo Domingo, 4 marines being killed, 13 wounded, and 1 officer wounded, between April 6, 1917, and November 11, 1918.

THE SECOND DIVISION OF REGULARS.

The first unit which ultimately formed a part of the Second Division arriving in France was the Fifth Regiment of Marines which landed in France with the first expedition of American troops in June, 1917. One marine lieutenant colonel, who afterwards was the first chief of staff of the Second Division, and another marine lieutenant colonel, who later commanded the Seventeenth Field Artillery of the Second Division, accompanied Gen. Pershing and his staff when they sailed from the United States late in May, 1917.

The Second Division was composed of the following units:

Third Infantry Brigade: Ninth Infantry, Twenty-third Infantry, Fifth Machine Gun Battalion.

Fourth Infantry Brigade: Fifth Marines, Sixth Marines, Sixth Machine Gun Battalion of marines.

Second Field Artillery Brigade: Twelfth Field Artillery, Fifteenth Field Artillery, Seventeenth Field Artillery, Second Trench Mortar Battery.

Other troops: Second Engineers, Fourth Machine Gun Battalion, First Field Signal Battalion, Second Headquarters Train and Military Police, Second Ammunition Train, Second Engineer Train, Second Supply Train, Second Sanitary Train.

On October 26, 1917, Brig. Gen. Charles A. Doyen, United States Marine Corps, assumed command of the Second Division as its first commanding general and announced his staff in General Orders, No. 1, with station at Bourmont, Haute-Marne, France. Lieut. Col. Logan Feland, United States Marine Corps, was the first chief of staff. On November 8, 1917, Maj. Gen. Omar Bundy, United States Army, assumed command, and was in command of it during the operations in the Verdun and Chateau-Thierry sectors. Maj. Gen. James G. Harbord, United States Army, commanded the division in the Aisne-Marne (Soissons) offensive in July, 1918. Maj. Gen. John A. Lejeune assumed command of the division on July 28, 1918, and retained command until its demobilization in August, 1919. Many marine officers occupied positions of importance and responsibility on the staff of the commanding general Second Division. A marine officer commanded the Seventeenth Field Artillery during the Meuse-Argonne offensive, and other marine officers commanded battalions of the Ninth Infantry and Fifteenth Field Artillery for a time.

The Fourth Brigade remained in the Bourmont training area, with headquarters at Damblain, until March 24, 1918, when it commenced movement into subsectors of the Verdun front, the first units of the brigade entering the front line during the night of March 16-17, 1918, with headquarters

at Toulon. On April 1, 1918, brigade headquarters was changed to Moscou. The brigade remained on the Verdun front until May 14, 1918, when it proceeded to an area around Vitry-le-Francois for open-warfare training, with headquarters at Venault-les-Dames. In the meantime, on May 6, 1918, Brig. Gen. James G. Harbord assumed command of the brigade, relieving Brig. Gen. Doyen, who had been ordered to the United States on account of his physical condition.

On May 14, 1918, the brigade left the area around Vitry-le-Francois, as it was unsuitable, and proceeded to an area around Gisors-Chaumont-en-Vixen, with headquarters at Bou-des-Bois. The brigade was in this area when sudden orders came to move to the Chateau-Thierry sector.

On May 27, 1918, Brig. Gen. John A. Lejeune and Maj. Earl H. Ellis sailed from New York on board the *Henderson*, and arrived at Brest, France, on June 8, 1918.

AISNE DEFENSIVE, HILL 142, BOURESCHES, AND BELLEAU WOOD.

In 1918, prior to the middle of July, the offensive was in the hands of the Germans, and between March 21, 1918, and July 15, 1918, the Germans directed no less than five major offensives against the allied lines in efforts to bring the war to a successful conclusion for the Central Powers. American troops assisted in breaking up every one of these drives, but the Second Division, including the marines, opposed only one—that in the Chateau-Thierry sector. On March 28, 1918, the American commander in chief placed all of the American forces at the disposal of Marshal Foch, who had been agreed upon as commander in chief of the allied armies, to be used as he might decide.

The first offensive (Somme) of the Germans was stopped within a few miles of Amiens, and the second (Lys) overran Armentieres. In this second German offensive, which lasted from April 9 to 27, 1918, and which has been designated by the Americans as a major operation, there were approximately 500 American troops engaged.

Late in May the Germans launched their third offensive, west of Rheims, crossed the Chemin-des-Dames, captured Soissons, and the last day of May found them marching in the direction of Paris down the Marne Valley. Again the American commander in chief placed every available man at the disposal of Marshal Foch. It was at this critical time, when the Allies were facing a grave crisis, that the Second Division, including the Marine Brigade, together with elements of the Third and Twenty-eighth Divisions, were thrown into the line and, in blocking the German advance in the Chateau-Thierry sector, rendered great assistance in stopping the most dangerous of the German drives.

The first report of the American commander in chief states that "the Third Division, which had just come from its preliminary training area, was hurried to the Marne. Its motorized machine-gun battalion preceded the other units and successfully held the bridgehead at the Marne opposite Chateau-Thierry. The Second Division, in reserve near Montdidier, was sent by motor trucks and other available transport to check the progress of the enemy toward Paris."

The final report of the American commander in chief with reference to this third German offensive stated in part:

"On reaching the Marne that river was used as a defensive flank and the German advance was directed toward Paris. During the first days of June something akin to a panic seized the city and it was estimated that 1,000,000 people left during the spring of 1918."

The Second Division, then in reserve northwest of Paris and preparing to relieve the First Division, was hastily diverted to the vicinity of Meaux on May 31, and, early on the morning of June 1, was deployed across the Chateau-Thierry-Paris road near Montreuil aux-Lions in a gap in the French line, where it stopped the German advance on Paris.

The fighting of the Second Division in the Chateau-Thierry sector was divided into two parts, one a stubborn defensive lasting a week and the other a rigorous offensive. The defensive fighting of the Second Division between May 31 and June 5, 1918, was part of the major operation called by the Americans the Aisne defensive.

The close of the Aisne defensive on June 5 found the line of the Second Division well established at that point of the Marne salient nearest Paris, but

not including Hill 142, Bois de Belleau, Boursches, or Vaux, and the Germans were in possession of Chateau-Thierry on the right of the Second Division, and continued to hold that town until about July 17.

On June 6, 1918, the Second Division wrested the initiative from the Germans, and started an offensive on its front which did not end until July 1. The Marine Brigade captured Hill 142 and Boursches on June 6, 1918, and, in the words of Gen. Pershing, "Sturdily held its ground against the enemy's best guard division," and completely cleared the Bois de Belleau of the enemy on June 26, 1918, a major of marines sending in his famous message: "Woods now United States Marine Corps' entirely." The American commander in chief in his first reports calls this fighting "the Battle of Belleau Woods," and states, "Our men proved their superiority, and gained a strong tactical position with far greater loss to the enemy than to ourselves." In his final report he stated: "The enemy having been halted, the Second Division commenced a series of vigorous attacks on June 4, which resulted in the capture of Belleau Woods (on June 26), after very severe fighting. The village of Boursches was taken soon after (on June 6), and on July 1 Vaux was captured. In these operations the Second Division met with most desperate resistance by Germany's best troops." On July 1, 1918, the Third Brigade captured Vaux. The Artillery Engineers, and the other elements of the Second Division assisted materially in these successes, while the Seventh Regiment of the Third Division was in Belleau Woods for a few days about the middle of June.

During these 31 days of constant fighting, the last 26 of which has been defined by general headquarters of the American Expeditionary Forces as a "local engagement," the Second Division suffered 1,811 battle deaths of which approximately 1,062 were marines, and suffered additional casualties amounting to 7,252 (of which approximately 3,615 were marines).

The achievements of the Fourth Brigade of Marines in the Chateau-Thierry sector was twice recognized by the French. The first, which changed the name of the Bois de Belleau, was a tribute spontaneously made to the successes and to the losses of the Fourth Brigade of Marines. Belleau Woods and other nearby positions were taken from the Germans and had a beneficial effect on the feelings of the French and the morale of the Allies. Official maps were immediately modified to conform with the provisions of the order, the plan directeur used in later operations bearing the name "Bois de la Brigade de Marine." The French also used this new name in their orders, as illustrated by an *ordre général*, dated August 9, 1918, signed by the commanding general of the Sixth French Army.

The second recognition by the French of the marines' work in the Chateau-Thierry sector were citations of the Fourth Brigade, Fifth and Sixth Regiments, and the Sixth Machine Gun Battalion of Marines in French army orders.

French civilian sentiment expressed itself in a letter from the mayor of Meaux and a resolution from the assembled mayors of the Meaux district (*arrondissement*). This letter and the resolutions were published on July 10, 1918, in General Orders No. 43, of the Second Division "as indicating the appreciation of the efforts of the Second Division by the French inhabitants for our share in stemming the recent German advance in this sector." This letter said:

"The civilian population of this part of the country will never forget that the beginning of this month of June, when their homes were threatened by the invader, the Second American Division victoriously stepped forth and succeeded in saving them from impending danger."

During the first attack on Belleau Wood on June 6, 1918, Col. Albertus W. Catlin was severely wounded and was relieved in command of the Sixth Regiment by Lieut. Col. Harry Lee, who continued in command until the regiment was demobilized in August, 1919.

When Maj. Edward B. Cole was mortally wounded, on June 10, 1918, he was relieved in command of the Sixth Machine Gun Battalion of marines by Capt. Harlan E. Major. On June 11, 1918, Capt. Major was relieved by Capt. George H. Osterhout, who retained command until relieved by Maj. Littleton W. T. Waller, jr., on June 21, 1918.

During the fighting in the Chateau-Thierry sector the headquarters of the Fourth Brigade was successively at Montreuil-aux-Lions (in an automobile for one-half hour on the way to the front lines), Issonge farmhouse, and La Loge farmhouse. After being relieved by elements of the Twenty-sixth Division during the night of July 5-6, 1918, the brigade moved to an area in rear of the lines and occupied what was known as the line of defense, or Army line, with

headquarters at Nanteuil sur-Marne. The brigade remained there until July 16, 1918.

During the time the above-described fighting was going on the Germans were frustrated in their fourth 1918 drive (Noyon-Montdidier defensive), between June 9 and 15, 1918; and, of course, being busy in the vicinity of Bois de Belleau, the marines had no opportunity of engaging in it.

Having been blocked in the Marne salient, the Germans attacked, for the fifth time in 1918, on July 15; and, as events turned out, it was the last, for from the time of its failure they were on the defensive. The allied troops, including many Americans, held this attack, called by the Americans the Champagne-Marne defensive, which was on a large scale, and the grand initiative passed from the Germans to the Allies on July 18, 1918, when Marshal Foch launched his initial major offensive, termed by the Americans the Aisne-Marne. In this operation the marine brigade and other elements of the Second Division took part in the vicinity of Soissons.

THE AISNE-MARNE OFFENSIVE (SOISSONS).

On July 11, 1918, Brig. Gen. James G. Harbord, commanding general of the marine brigade, received notification of his appointment as a major general, and two days later left on a five days' leave of absence. As Col. Neville had been evacuated to a base hospital after leaving the Chateau-Thierry sector, Lieut. Col. Harry Lee assumed temporary command of the brigade. Maj. Gen. Harbord and Col. Neville both returned in time to enter the Aisne-Marne offensive, the former in command of the Second Division and the latter in command of the Fourth Brigade.

Of the six allied offensives taking place in 1918 on the western front, designated by the Americans as major operations, the Fourth Brigade of Marines, with the other units of the Second Division, participated in three, the first being the vast offensive known as the Aisne-Marne, in which the Marine Brigade entered the line near Soissons.

On July 17, 1918, the First Moroccan Division and the First and Second Divisions of American Regulars were hurriedly and secretly concentrated, by terribly fatiguing forced night marches over roads jammed with troops, artillery, and tanks, through rain and mud, in the Bois de Retz, near Soissons. Headquarters of the Fourth Brigade was established at Vivieres.

Early on the morning of July 18, 1918, Marshal Foch threw these three picked divisions at the unsuspecting Germans with overwhelming success, and again on the following day. The American commander in chief in his first report stated:

"The place of honor in the thrust toward Soissons on July 18 was given to our First and Second Divisions, in company with chosen French divisions. Without the usual brief warning of a preliminary bombardment, the massed French and American artillery, firing by the map, laid down its rolling barrage at dawn while the Infantry began its charge. The tactical handling of our troops under these trying conditions was excellent throughout the action. The Second Division took Beaurepaire farm and Vierzy in a very rapid advance and reached a position in front of Tigny at the end of its second day."

In his final report he stated:

"Gen. Petain's initial plan for the counterattack involved the entire western face of the Marne salient. The First and Second American Divisions, with the First French Moroccan Division between them, were employed as the spearhead of the main attack, driving directly eastward through the most sensitive portion of the German lines to the heights south of Soissons. The advance began on July 18, without the usual brief warning of a preliminary bombardment, and these three divisions at a single bound broke through the enemy's infantry defenses and overran his artillery, cutting or interrupting the German communications leading into the salient. A general withdrawal from the Marne was immediately begun by the enemy, who still fought stubbornly to prevent disaster.

"The Second Division advanced 8 kilometers in the first 26 hours, and by the end of the second day were facing Tigny, having captured 3,000 prisoners and 66 field guns. It was relieved the night of the 19th by a French division. The result of this counteroffensive was of decided importance. Due to the magnificent dash and power displayed on the field of Soissons by our First and Second Divisions, the tide of war was definitely turned in favor of the Allies."

Maj. Gen. James G. Harbord, commanding the Second Division in this operation, describes the two days' fighting of his division in these words:

"It is with keen pride that the division commander transmits to the command the congratulations and affectionate personal greetings of Gen. Pershing, who visited the division headquarters last night. His praise of the gallant work of the division on the 18th and 19th is echoed by the French high command, the Third Corps commander, American Expeditionary Forces, and in a telegram from the former division commander. In spite of two sleepless nights, long marches through rain and mud, and the discomforts of hunger and thirst, the division attacked side by side with the gallant First Moroccan Division and maintained itself with credit. You advanced over six miles, captured over 3,000 prisoners, 11 batteries of artillery, over 100 machine guns, minnenwerfers, and supplies. The Second Division has sustained the best traditions of the Regular Army and the Marine Corps. The story of your achievements will be told in millions of homes in all allied lands to-night."

This was one of the greatest strategical successes of Marshal Foch, and that the part played by the marines was appreciated by the French is illustrated by the Fifth and Sixth Regiments and the Sixth Machine Gun Battalion being cited in French Army orders.

Following the advance of the first day, brigade headquarters was moved forward to a cave in Vierzy.

Col. Logan Feland was in command of the Fifth Regiment during the Aisne-Marne offensive, near Soissons, and continued in command of it with the exception of two days in July, 1918 (when Brig. Gen. Lejeune commanded the Fourth Brigade and Col. Neville the Fifth Regiment), until March 21, 1919, when he was relieved by Col. Harold C. Snyder, who retained command until the date of demobilization.

The Fourth Brigade was relieved about midnight July 19, 1918, and after remaining in a reserve position until July 22, 1918, marched to an area farther in the rear, but still in a reserve position, brigade headquarters being established at Taillefontaine. After final relief from this active sector the brigade was billeted July 24-25, 1918, in an area around Nanteuill-le-Haudouin, brigade headquarters being established at Nanteuill. The brigade remained in this area until July 31, 1918.

On July 25, 1918, Brig. Gen. John A. Lejeune arrived, and assumed command of the Fourth Brigade on July 26, 1918, General Orders, No. 16, reading as follows:

"I have this day assumed command of the Fourth Brigade, United States Marines.

"To command this brigade is the highest honor that could come to any man. Its renown is imperishable, and the skill, endurance, and valor of the officers and men have immortalized its name and that of the Marine Corps."

Brig. Gen. Lejeune retained command until July 29, 1918, when he became commanding general of the Second Division, relieving Maj. Gen. Harbord, who left to assume command of the Services of Supply. Col. Neville, on this latter date, resumed command of the Fourth Brigade.

MARBACHE SECTOR, NEAR PONT-A-MOUSSON—ST. MIHIEL OFFENSIVE.

During the last two days of July, 1918, the units of the brigade entrained for a 24-hour railroad journey which took them to an area around Nancy, with headquarters at Villers-les-Nancy, where they remained resting and refitting until August 9, 1918.

On August 7, 1918, information was received of the promotion of Brig. Gen. Lejeune to the grade of major general, and of Col. Neville to the grade of brigadier general, both to date from July 1, 1918.

Col. Albertus W. Catlin arrived in the United States on board the *America* on August 3, 1918. Col. Catlin, having been wounded on June 6, 1918, during the first attack on Bois de Belleau, was admitted to Hospital No. 2, Paris, France, on the next day, was discharged on July 22, 1918, granted two months' sick leave, and sailed for New York from Brest, France, on July 25, 1918.

On August 5, 1918, movement of units of the brigade was started for the occupation of the Marbache subsector, near Pont-a-Mousson, on the Moselle River. By August 8, 1918, the movement was completed, with headquarters established at Scarponne, just across the Moselle River from Dieulouard. The sector was quiet and occupation uneventful, except for an enemy raid which was successfully repulsed and prisoners captured.

On August 8, 1918, Lieut. Col. Earl H. Ellis was appointed adjutant of the Fourth Brigade, relieving Lieut. Col. Harry R. Lay, who had been detailed as inspector general of the Second Division.

The relief from the Marbache Sector was completed on August 18, 1918, and the brigade moved to an area about 20 kilometers southeast of Toul, headquarters being established at Favieres. Intensive training for the impending St. Mihiel offensive was indulged in here.

The brigade started to move from this area on the night of September 2, 1918, and after a series of night marches, during which time headquarters were established at Pont St. Vincent, Velaine-en-Haye, and Bouvron, the brigade arrived just outside of Manonville, headquarters being established in Manonville. From September 12 to 16, 1918, the brigade was engaged in the St. Mihiel offensive in the vicinity of Remenauville, Thiaucourt, Xammes, and Jaulny as a unit of the Second Division of the First Corps of the First Army. Headquarters during these operations were successively at 1 kilometer north of Lironville, Thiaucourt, and finally at Manonville, on September 16, 1918.

On September 20, 1918, the brigade moved to an area south of Toul, with headquarters at Chaudenay. The brigade remained in this area until September 25, 1918, when it moved by rail to an area south of Chalons-sur-Marne, with headquarters at Sarry.

THE CHAMPAGNE—BATTLE OF BLANC MONT RIDGE—CAPTURE OF ETIENNE—MARCH TO LEFFINCOURT.

Marshal Foch, having asked for an American division to assist in breaking through the powerful German defenses in the Champagne, the Second Division, including the Marine Brigade, was temporarily placed at the disposal of the Fourth French Army under Gen. Gouraud from September 27, 1918, to October 10, 1918. At first it was directly subject to the orders of Marshal Petain, but before the actual fighting began it was placed directly under the orders of Gen. Gouraud.

On September 28, 1918, the Fourth Brigade moved by bus and marching to the Souain-Sulppes area, with brigade headquarters at Sulppes.

On October 1, 1918, in an order of the Second Division, the commanding general of the Second Division encouraged his division with the following words:

"1. The greatest battles in the world's history are now being fought. The Allies are attacking successfully on all fronts. The valiant Belgian Army has surprised and defeated the enemy in Flanders; the English, who have been attacking the enemy without ceasing since August 8, have advanced beyond the Hindenburg line, between Cambria and St. Quentin, capturing thousands of prisoners and hundreds of cannon; the heroic allied army of the Orient has decisively defeated the Bulgars; the British have captured over 50,000 prisoners in Palestine and have inflicted a mortal blow on the Turk; and our own First Army and the Fourth French Army have already gained much success in the preliminary stages of their attack between the Meuse and Sulppes Rivers.

"2. Owing to its world-wide reputation for skill and valor, the Second Division was selected by the commander in chief of the allied armies as his special reserve, and has been held in readiness to strike a swift and powerful blow at the vital point of the enemy's line. The hour to move forward has now come, and I am confident that our division will pierce the enemy's line, and once more gloriously defeat the Hun."

The battle of Blanc Mont Ridge was one of the most powerful and effective blows struck under the direction of Marshal Foch against the retreating Germans, and its brilliantly successful conclusion was due in a great degree to the military genius of Maj. Gen. John A. Lejeune of the Marines.

On September 27, 1918, Maj. Gen. John A. Lejeune called on Gen. Gouraud at the headquarters of the Fourth French Army, who explained the situation at the front to him. Facing a large relief map of the battlefield, Gen. Gouraud placed his hand on the Blanc Mont Ridge and said: "General, this position is the key of all the German defenses of this sector including the whole Rheims Massif. If this ridge can be taken the Germans will be obliged to retreat along the whole front 30 kilometers to the river Aisne. Do you think your division could effect its capture?" Maj. Gen. Lejeune responded that he felt certain the Second Division could take the stronghold pointed out, whereupon he was informed that he would be ordered to make the attack within a few days and was directed to prepare a plan for the assault.

At this time the Second Division was directly subject to the orders of Marshal Petain, but later in the day Gen. Gouraud informed Maj. Gen. Lejeune that after an explanation of the circumstances Marshal Petain had assigned the division to the Fourth French Army.

The general plan provided for an attack by the whole Fourth French Army between the Argonne and the Suipees River.

On October 1, 1918, the brigade with the rest of the Second Division marched to the front line near Somme-Py on the night of October 1-2, 1918, and relieved elements of a French division. The brigade headquarters was located in the trenches about 2½ kilometers south of Somme-Py. The relief was effected before daylight without incident.

The Battle of Blanc Mont Ridge was fought and won by the Second Division, as a unit of the Fourth French Army, between October 3 and 9, 1918, over the desolate chalky ground of the Champagne, which was scarred and shell pocked by years of artillery fire, marked with huge mine craters, grid-ironed with an intricate maze of deep trenches and concrete fortifications, and covered with tangled masses of wire.

The overwhelming success and the far-reaching effect of the Second Divisions' part in these operations, the cleaning up of the Esscu Hook, the capture of Blanc Mont Ridge, and the capture of St. Etienne, are described in general terms in official publications.

That the plan was as brilliantly executed as it was daringly conceived is shown by this extract from an order of the Second Division, dated November 11, 1918, reading in part as follows:

"In the Champagne district, October 2 to 10, it fought beside the Fourth French Army. On October 3 it seized Blanc Mont Ridge, the keystone of the arch of the main German position, advanced beyond the ridge and, although both flanks were unsupported, it held all its gains with the utmost tenacity, inflicting tremendous losses on the enemy. This victory freed Rheims and forced the entire German Army between that city and the Argonne Forest to retreat to the Aisne, a distance of 30 kilometers."

The amazing success of the attack and the vital effect of the capture of Blanc Mont Ridge and St. Etienne is described in the words of Gen. Couraud himself in a letter to Marshal Foch, reading in part as follows:

"Because of the brilliant part played by this 'grand unit' in the offensive of the Fourth Army during the autumn of 1918, I propose the Second American Division for a citation in 'The Order of the Army' upon the following specific grounds:

"The Second Infantry Division, United States, brilliantly commanded by Gen. Lejeune, played a glorious part in the operations of the Fourth Army in the Champagne in October, 1918. On the 3d of October this division drove forward and seized in a single assault the strongly entrenched German positions between Blanc Mont and Medeah Ferme, and again pressing forward to the outskirts of Saint Etienne-a-Arnes it made in the course of the day an advance of about 6 kilometers.

"It captured several thousand prisoners, many cannon, and machine guns, and a large quantity of other military matériel. This attack, combined with that of the French divisions on its left and right, resulted in the evacuation by the enemy of his positions on both sides of the river Suipee and his withdrawal from the Massif de Notre-Dame-des-Champs."

The further opinion of the French as to the results and effect of the Second Division's operations in Champagne is set forth in the following-quoted extract from Information Bulletin No. 12 of the Fourth French Army dated October 7, 1918:

"Up to October 4, at which date the present bulletin is written, the Fourth Army has pushed its advance up to objectives of the very highest importance. A splendid American division, full of dash and ardor, the Second Division, United States, placed at the disposition of the Twenty-first Corps on October 3, made itself master of Massif du Blanc Mont, which dominates the valley of the Arnes and gives us excellent outlook on the valley of the Suipee in rear of the region of Monts. This conquest rapidly brought about the downfall of Notre-dame-des-Champs and the Grand Bois de Saint Souplet."

The American commander in chief in his first report describes the Battle of Blanc Mont in the following words:

"The Second Division conquered the complicated defense works on their front against a persistent defense worthy of the grimmest period of trench warfare and attacked the strongly held wooded hill of Blanc Mont, which they

captured in a second assault, sweeping over it with consummate dash and skill. This division then repulsed strong counterattacks before the village and cemetery of St. Etienne and took the town, forcing the Germans to fall back from Rheims and yield positions they had held since September, 1914."

On October 10, 1918, having been relieved from the line in the Blanc Mont sector, the brigade took station in the Sulpess-Somme Sulpess-Nantivet area and the adjacent camps with headquarters at Sulpess, being assigned as Fourth French Army reserve. The brigade remained in this area resting and refitting until October 14, 1918, when, in accordance with orders, it marched to the Vadenay-Bouy-la-Veuve-Dampierre area,* north of Chalons-sur-Marne, with headquarters at Bouy. While here orders were received placing the Fourth Brigade provisionally at the disposal of the Ninth French Army Corps to hold a sector in the region Attigny-Voncq-Aisne River.

Accordingly on October 20, 1918, the brigade was temporarily detached from the Second Division and marched to the area Sulpess-Nantivet-Somme-Sulpess, with headquarters at Sulpess. On October 21, 1918, in obedience to orders, the Marines hiked to the vicinity of Leflincourt, where brigade headquarters was established. While about to take over the assigned sector the Fourth Brigade received orders to rejoin the Second Division, which was preparing to enter the Meuse-Argonne offensive. After a hard march these orders were obeyed and brigade headquarters established at Mont Peller on October 23, 1918.

On October 24, 1918, Maj. Matthew W. Kingman relieved Maj. Littleton W. T. Waller, Jr., in command of the Sixth Machine Gun Battalion of Marines, Maj. Waller joining the Second Division staff as division machine-gun officer.

THE MEUSE-ARGONNE OFFENSIVE—CROSSING THE MEUSE RIVER.

On October 25, 1918, the brigade moved to the Les Islettes area, with brigade headquarters at Camp Cabaud. On the evening of October 26 it arrived in the area south of Exermont and bivouacked in the woods there that night, with brigade headquarters at Exermont. The brigade remained in bivouac in this area until the night of October 30-31, when it moved forward into line to participate in the immense Meuse-Argonne offensive, which had started on September 26, the Second Division being assigned as a unit of the Fifth Corps.

Relieving elements of the Forty-second Division, just south of Londres et St. Georges, the marine brigade early on the morning of November 1 jumped off, following a terrific barrage, for its final operation of the war, the conclusion of which at 11 o'clock on the morning of November 11, 1918, found the marines firmly established on the heights of the far bank of the Meuse River after an advance of 30 kilometers.

The splendid work of the Second Division, including the marines, is described in official reports, and excerpts from some are given below.

In recommending that the Second Division be cited in General Headquarters Orders for its excellent work in the attack of November 1-11, 1918, the commanding general First Army wrote on January 16, 1919, in part as follows:

"4. In the First Army attack of November 1, 1918, the Second Division was selected and so placed in the battle line that its known ability might be used to overcome the critical part of the enemy's defense. The salient feature of the plan of attack was to drive a wedge through Landres et St. Georges to the vicinity of Fosse. It was realized that if the foregoing could be accomplished the backbone of the hostile resistance west of the Meuse would be broken, and the enemy would have to retreat to the east of the Meuse. Success in this plan would immediately loosen the flanks of the First Army. The Second Division was selected to carry out this main blow.

"5. The Second Division accomplished the results desired in every particular on the first day of the attack, not only clearing the hostile defenses of Landres et St. Georges and the Bois de Hazols but continuing its advance to the vicinity of Fosse; i. e., about 9 kilometers. This decisive blow broke enemy's defense and opened the way for the rapid advance of the Army."

With reference to the first day's attack, the commanding general, Fifth Army Corps, wrote officially on November 2, 1918, in part as follows:

"The division's brilliant advance of more than 9 kilometers, destroying the last stronghold on the Hindenburg line, capturing the Freya Stellung, and going more than 9 kilometers against not only the permanent but the relieving forces in their front, may justly be regarded as one of the most remarkable achievements made by any troops in this war. For the first time, perhaps, in our experience the losses inflicted by your division upon the enemy in the offensive

greatly exceeded the casualties of the division. The reports indicate moreover that in a single day the division has captured more artillery and machine guns than usually falls to the lot of a command during several days of hard fighting. These results must be attributed to the great dash and speed of the troops, and to the irresistible force with which they struck and overcame the enemy."

The following citation in Fifth Army Corps, General Orders No. 26, dated November 20, 1918, gives a further description of these operations:

"The Second Division, in line at the launching of the attack, broke through the strong enemy resistance, and, leading the advance, drove forward in a fast and determined pursuit of the enemy, who, despite new divisions hastily thrown in, was driven back everywhere on its front. This division drove the enemy across the Meuse, and under heavy fire against stubborn resistance, built bridges and established itself on the heights. The cessation of hostilities found this division holding strong positions across the Meuse and ready for a continuation of the advance."

An order of the Second Division, dated November 5, 1918, reading in part as follows, tells what occurred subsequent to the first day's attack:

"During the night of November 2-3 the Second Division moved forward overcoming the resistance of the enemy's advanced elements, and, at 6 a. m., it attacked and seized the enemy's line of defense on the ridge southeast of Vaux-en-Dieulet.

"Late in the afternoon, the enemy, having reorganized his line on the border of Belval Forest, was again attacked and defeated. After nightfall, and in a heavy rain, the advanced elements of the division pressed forward through the forest and occupied a position on the heights south of Beaumont, 8 kilometers in advance of the divisions on our right and left.

"During the night of November 4-5 the division again pressed forward, occupied Beaumont and Letanne and threw the enemy on its front across the Meuse."

An order of the Second Division, dated November 12, 1918, describing the historic crossing of the Meuse River on the night before the armistice became operative, reads as follows:

"1. On the night of November 10 heroic deeds were done by heroic men. In the face of a heavy artillery and withering machine-gun fire, the Second Engineers threw two foot bridges across the Meuse and the first and second battalions of the Fifth Marines crossed resolutely and unflinchingly to the east bank and carried out their mission.

"2. In the last battle of the war, as in all others in which this division has participated, it enforced its will on the enemy."

The general success achieved by the Second Division in the Argonne-Meuse offensive is well described by the words of the order citing Maj. Gen. John A. Lejeune, of the marines, for an Army distinguished service medal, reading in part as follows:

"In the Meuse-Argonne offensive his division was directed with such sound judgment and ability that it broke and held, by the vigor and rapidity of execution of its attack, enemy lines which had hitherto been considered impregnable."

During this fighting the headquarters of the Fourth Brigade was successively established at Exermont, one-half kilometer north of Exermont, Sommerance, Bayonville-et-Chennery, Fosse, Belval-Bois-des-Dames, and Beaumont.

The following self-explanatory memorandum was sent out by the commanding general of the Fourth Brigade:

HEADQUARTERS FOURTH BRIGADE,
MARINES, AMERICAN EXPEDITIONARY FORCES,
November 11, 1918—9.10 a. m.

Peace memorandum No. 1.

The following telephone message received from Surprise 1 at 8.35 a. m. this morning forwarded for compliance:

8.40 a. m. message from Fifth Corps: Armistice signed and takes effect at 11 this morning. Accurate map showing locations of front-line elements, including patrols and detachments, will be sent to these headquarters without delay.

On "the eleventh hour, the eleventh day of the eleventh month, of the year 1918," Brig. Gen. Wendell C. Neville, commanding general of the Fourth Brigade of Marines, published the following tribute to the officers and men of the Fourth Brigade:

"Upon this, the most momentous hour in the history of the World War, the undersigned wishes to express to his command his sincere appreciation of their unflinching devotion to duty and their heroic and courageous action during the recent operations.

"The time, when the results of our efforts during the past year are shown, is here. The hour has arrived when the convulsion which has shaken the foundations of the civilized world has ceased. The enemy is defeated and the principles of freedom and democracy have triumphed over barbarism and autocracy. We may all feel justly proud of the extent of our participation which has forced the enemy to a cessation of hostilities. It is fitting, at this time, to think of those of our comrades who have fallen on the field of honor and rejoice in the fact that they did not give their lives in vain.

"Your display of fortitude, determination, courage, and your ability to fight has upon more than one occasion been a determining factor in making history, and your work has had a direct bearing upon the remarkable chain of events which have this day culminated in such a satisfactory manner. Along the fronts of Verdun, the Marne, the Aisne, Lorraine, Champagne, and the Argonne, the units of the Fourth Brigade Marines have fought valiantly, bravely, and decisively. They have nobly sustained the sacred traditions and have added glorious pages to the already illustrious history of the United States Marine Corps. It is a record of which you may all be proud."

MARCH TO THE RHINE—ARMY OF OCCUPATION.

On November 17, 1918, the Second Division commenced its march to the Rhine, passing through Belgium and Luxembourg. The German frontier was reached November 25, 1918, crossed on December 1, 1918, the Rhine reached December 10, 1918, and crossed on December 13, 1918. During this march and up to the time the Fourth Brigade settled down to its occupation duty in Germany, brigade headquarters were successively established at Margut, Bellefontaine, Arlon, Usseldange, Berg, Eppeldorf, Neuerburgh, Waxweiler, Prum, Budeshelm, Wiesbaum, Antweiler, Neuenahr, Burghbrohl, Rheinbrohl, and Honningen.

WITH THE ARMY OF OCCUPATION.

The duties of the Fourth Brigade with the Army of Occupation in Germany were uneventful, the outstanding features being the establishment of a Rhine River patrol, manned and commanded by Marines; an extended visit, inspection, and review by the Secretary of the Navy; and the operation of the Second Division, including the marines, made about the middle of June, 1919, in which an advanced position was taken as a part of the concentration of the Third Army immediately preceding the signing of the treaty of peace by the Germans.

Headquarters of the Fourth Brigade during the greater part of the occupation of Germany was at Nieder Bleber, while during the last operation when the advanced position was taken, just prior to Germany signing the peace treaty, it was at Herschbach. On the date the treaty was signed the Fifth Regiment, with headquarters at Hatenfels, occupied the most advanced position ever occupied by marines in Germany.

Just before departing from Germany headquarters was at Nieder Bleber, and with the exception of Brest, France, this was the last headquarters the brigade had in Europe.

Maj. Charles D. Barrett relieved Lieut. Col. Earl H. Ellis as brigade adjutant in April, 1919, and held that position until the brigade was demobilized. Lieut. Col. Ellis was assigned to duty as second in command of the Fifth Regiment. On March 12, 1919, Col. Logan Feland was temporarily appointed brigadier general to rank from March 9, 1919, and accepted appointment and executed oath on March 17, 1919. On March 21, 1919, Col. Harold C. Snyder assumed command of the Fifth Regiment, relieving Brig. Gen. Logan Feland, who, after acting as aid for the Secretary of the Navy, arrived in the United States on the *Von Steuben* on May 13, 1919.

Just before the Second Division left Germany the commanding general of the Army of Occupation expressed his appreciation of the services of that division in a letter dated July 2, 1919, which is published in General Orders, Second Division, No. 68, July 5, 1919:

"As your magnificent division is about to leave his command, it is with a sense of gratitude for its splendid achievements while in the American Expeditionary

Forces that the Army commander expresses to you and to your gallant officers and men his appreciation of your services.

"After occupying a defensive sector between Verdun and St. Mihiel, you were placed in the line of battle and met, with stubborn resistance, the onslaughts of the enemy's hordes near Chateau-Thierry. Your action at Belleau Woods and your attacks upon and capture of Vaux must ever remain brilliant exploits in our military history.

"At Soissons, side by side with a veteran French division, you proved to our allies the fighting value of the Army of the United States, and at St. Mihiel, in the first great American offensive, your prowess in attack was irresistible.

"When in October, 1918, the Allied High Command desired to reinforce the French Army by American troops of great offensive worth, by real 'shock troops,' you were loaned to Gen. Gouraud's Fourth French Army and delivered your famous assault on Blanc Mont Ridge, releasing from German menace the historic city of Rheims.

"In the closing phase of the Meuse-Argonne operations, certainly no troops contributed more to the enemy's destruction than your division. After taking Landres-et-St. Georges, Bayonville-et-Chennery, and the Bois-de-la-Folie, you pierced the Bois-de-Belval, and by skillful night fighting and marching you cleared the enemy from the left bank of the Meuse and forced a crossing of the river.

"Your brilliant exploits in battle are paralleled by the splendid example of soldierly bearing and discipline set by your officers and men while a part of the Army of Occupation. That spirit and dash which carried your men through the enemy's defenses still predominated when the Army was recently concentrated, preparatory to a further advance into unoccupied Germany.

"Officers and soldiers of the Second Division, your achievements and sacrifices have earned for you and for your fallen comrades the praise and gratitude of our Nation."

A SUMMARY OF THE OPERATIONS OF THE FOURTH BRIGADE.

A summary of the operations of the Fourth Brigade of Marines is set forth below:

The Fourth Brigade of Marines as a unit of the Second Division participated in actual battle in France in the following sectors between the inclusive dates set down (as published in General Orders, No. 37, Second Division, April 25, 1919):

"Toulon sector, Verdun: From March 15 to May 13, 1918.

"Aisne defensive, in the Chateau-Thierry sector: From May 31 to June 5, 1918.

"Chateau-Thierry sector (capture of Hill 142, Bouresches, Belleau Wood): From June 6 to July 9, 1918.

"Aisne-Marne (Soissons) offensive: From July 18 to July 19, 1918.

"Marbache sector, near Pont-a-Mousson on the Moselle River: From August 9 to August 16, 1918.

"St. Mihiel offensive, in the vicinity of Thiaucourt, Xammes, and Jaulny: From September 12 to September 16, 1918.

"Meuse-Argonne (Champagne) including the capture of Blanc Mont Ridge and St. Etienne: From October 1 to October 10, 1918.

"Meuse-Argonne (including crossing of the Meuse River): From November 1 to November 11, 1918."

WITH THE NAVY ON BOARD BATTLESHIPS AND CRUISERS.

Marines served on board the battleships of division 9 of the Atlantic Fleet, composed of the *New York* (flagship), *Wyoming*, *Florida*, and *Delaware*, which served for a year with the British Grand Fleet; and of division 6, which was stationed at Bantry Bay, Ireland, as well as on other ships of the Atlantic, Pacific, and Asiatic fleets.

PARTICIPATED IN OPERATIONS AT VLADIVOSTOK.

The Marines of the *Brooklyn*, flagship of the Asiatic Fleet, participated in the activities around Vladivostok, Siberia, in 1918.

In June, 1918, Vladivostok and practically all of Siberia, was under the control of the Bolsheviks. The Bolsheviks, assisted by German and Austrian prisoners of war, were resisting the advance of the Czecho-Slovaks, who were trying to reach Vladivostok. In that city on June 29, 1918, there were ap-

proximately 12,000 well-organized Czecho-Slovaks, only about 2,500 of whom were armed or equipped. On the foregoing date the Czecho-Slovaks in the city took it over from the Bolsheviki after a three-hour battle near its center, and on the afternoon of that day Rear Admiral Austin M. Knight, commander in chief of the Asiatic Fleet, ordered a detachment of American marines ashore to guard the American consulate and to act as part of an allied force composed of British, Japanese, Chinese, and Czecho-Slovaks to patrol the city.

In July, 1918, marines from the *Brocklyn* acted as guards over German and Austrian prisoners of war on Russian Island, about 5 miles from Vladivostok, while marines from the same vessel constituted part of an allied military force of American and British marines, Japanese and Chinese bluejackets, and Czecho-Slovak soldiers which was organized to prevent a threatened strike and disorder among the workmen in the Russian navy yard at Vladivostok.

The *Albany* was at Vladivostok from April 2, 1919, until relieved by the *New Orleans* on July 25, 1919. Each of these ships, while they were anchored off Vladivostok, kept a small guard of marines at the United States naval radio station on Russian Island.

ACTIVITIES OF THE FIFTH BRIGADE.

The units of the Fifth Brigade were never together as a brigade in France or at any time an element of a division, and for that reason its commanding general was assigned additional duty in the American Expeditionary Forces.

Brig. Gen. Eli K. Cole, the first commanding general of the Fifth Brigade, arrived in France on September 24, 1918, and proceeded to headquarters Forty-first Division (First Depot Division), St. Aignan, France, reporting there October 1 to 4, 1918; on October 6, 1918, he joined the Second Division at Souain, France, as an observer, and remained with the Second Division until October 26, 1918, when he left to report at St. Aignan. On October 28, 1918, Brig. Gen. Cole arrived at St. Aignan and assumed command of the Forty-first Division (First Depot Division). From December 27, 1918, to January 10, 1919, he commanded the First Replacement Depot. From January 12 to February 3, 1919, he commanded the American embarkation center at Le Mans, France. From February 23, 1919, to March 4, 1919, he commanded the forwarding camp at Le Mans, France. During the period March 5 to 21, 1919, Brig. Gen. Cole was occupied in inspecting the units of the Fifth Brigade. He left Tours, France, on March 31, arrived at Brest, France, same day, was detached from the American Expeditionary Forces on March 31, and sailed for the United States on the *Mauretania*, arriving at New York April 7, 1919.

Brig. Gen. Smedley D. Butler relieved Brig. Gen. Cole as commanding general of the brigade on April 9, 1919, and retained command until it was demobilized in August, 1919.

One of the most prominent and outstanding features of the American Expeditionary Forces was the administration of Pontanezen Camp, at Brest, France, by Brig. Gen. Smedley D. Butler, United States Marine Corps, from October 6, 1918, to the latter part of July, 1919. The words of the citation conferring upon him the Army distinguished service medal describes in general terms the important work accomplished by Brig. Gen. Butler:

"Smedley D. Butler, brigadier general, United States Marine Corps. For exceptionally meritorious and distinguished services. He has commanded with ability and energy Pontanezen Camp, at Brest, during the time in which it has developed into the largest embarkation camp in the world. Confronted with problems of extraordinary magnitude in supervising the reception, entertainment, and departure of the large numbers of officers and soldiers passing through this camp, he has solved all with conspicuous success, performing services of the highest character for the American Expeditionary Forces."

Brig. Gen. Butler returned to the United States in command of the Fifth Brigade, on the *Siboney*, arriving at Hampton Roads, Va., on August 8, 1919.

ELEVENTH REGIMENT OF MARINES.

Col. George Van Orden commanded the Eleventh Regiment during its entire existence. The Eleventh Regiment was split up, its several units being stationed in various parts of France. Units of this regiment performed duty at various times at the following places: Brest, Tours, Montlerchaume (Indre), Havre, Gievres (Loire-et-Cher), Marseilles, Toulon (B-du-Rhone), Miramas (B-du-Rhone), Issoudun (Indre), La Pallice, La Rochelle (Charante Inferieur),

Mehun (Cher), St. Aignan-Noyers, Romorantin (Loire-et-Cher), Marans, Nevers, Algrefeuille, Barmant, Somme, Chateauroux (Indre), Camp Covington (Camp Carret) near Marseilles, Paris (headquarters detachment American Peace Commission).

The officers and men performed duties of various kinds, among such being: Post commanders, post and assistant post adjutants, personnel adjutants, regulating officers, assistant to the depot engineer, receiving officers, entertainment officers, assistant post chaplain, police officers, prison officers, camp guards, dock guards, commanding officers of troops, police sergeants, inspectors of the guard, district fire marshals, post welfare officers, district athletic officers, assistant provost marshals, fire patrol officers, fire marshals, transportation guard service, guard duty over prisoners, quartermaster property guard, interpreters, etc.

THIRTEENTH REGIMENT OF MARINES.

Col. Smedley D. Butler commanded the Thirteenth Regiment from the date of its organization until November 19, 1918, on which date Lieut. Col. Douglas C. McDougal assumed command and remained its commanding officer until it was demobilized.

Like the Eleventh Regiment, the units of this regiment performed duty in the various posts in the Services of Supply, among such places being Brest, Bordeaux, St. Nazaire, La Rochelle, La Pallice, Rochefort, Montoir, Bassens (Gironde), Sursol (Gironde), Casino-de-Lilas (Bordeaux), La Teste (Gironde) Beau Desert (Gironde), Nantes, St. Sulpice (Gironde), Savenay, St. Loubes (Gironde), Lormont, Carbon Blanc, Grange Neuve, Genicart, Croix d'Hins, La Baule, Isle of Ste. Anne (Nantes), Pen Houet, Usine Brulee.

The officers and men performed duties of various kinds, among such being provost guard, hospital-center guard, camp guard, railroad transportation officers, commanding dock guard, dock guard, unloading ships, erecting tents at Pontanezen Barracks, military police, warehouse guards, conveying of railroad trains, special guards for shipments of commissary supplies, assistants to camp commander at Pontanezen Camp, prison guards, assisting thousands of convalescent and sick soldiers who disembarked from the *Leviathan* to get to Camp Pontanezen, Inspector General's Department, base section No. 1, stockade guard, traffic police, motor transportation convoy guard, dock guard secret service, segregation camp, and railway patrol.

THE FIFTH BRIGADE MACHINE GUN BATTALION.

Maj. Ernest A. Perkins commanded the Fifth Brigade Machine Gun Battalion from the date of its organization until November 4, 1918; Capt. Franklin A. Hart, from that date until November 12, 1918; and from November 12, 1918, to date of demobilization Maj. Allen H. Turnage was the commanding officer.

This battalion performed duty at Camp Pontanezen during its entire stay in France.

MARINE CORPS CASUALTIES.

During the period of the war the Marine Corps personnel suffered casualties in actual battle in France with the American Expeditionary Forces (Second Division and Aviation); in Aviation, while operating as part of the naval service in France; and in the West Indies, in operations against the bandits of Santo Domingo.

Marine Corps deaths in the American Expeditionary Forces, as obtained from Marine Corps records, are divided as follows:

Character.	Officers.	Enlisted men.	Total.
Killed in action.....	45	1,420	1,465
Died of wounds received in action.....	30	961	991
Died of accident.....	3	24	27
Died of disease.....	14	255	269
Other causes.....	1	11	12
Total.....	93	2,671	2,764

The following is a summary of the casualties sustained by the Fourth Brigade of Marines from March 15 to November 11, 1918, as published in General Orders, No. 66, Second Division, American Expeditionary Forces, dated July 2, 1919:

Fourth Brigade casualties.

	Killed.		Died of wounds.		Missing.		Wounded severely.	
	Off- cers.	Men.	Off- cers.	Men.	Off- cers.	Men.	Off- cers.	Men.
Toulon sector (Verdun), Mar. 15-May 13.....		12	2	44				16
Aisne defensive and Chateau-Thierry sector, May 31-July 9, 1918.....	25	724	9	304		33	3	322
Aisne-Marne offensive, July 18-25, 1918.....	10	156	5	104		66	9	250
Marbache sector, Aug. 9-22.....		1		1				2
St. Mihiel offensive, Sept. 12-Sept. 16.....	3	57		86		11	3	124
Meuse-Argonne (Champagne), Oct. 1-Oct. 10.....	9	320	8	155		31	23	380
Meuse-Argonne offensive, Nov. 1-11.....	8	189	1	59		20	7	222
Total.....	55	1,459	25	753		161	45	1,316

	Wounded slightly.		Wounded, degree undetermined.		Gassed.		Total.	
	Off- cers.	Men.	Off- cers.	Men.	Off- cers.	Men.	Off- cers.	Men.
Toulon sector (Verdun), Mar. 15-May 13.....	6	46		89	4	287	12	494
Aisne defensive and Chateau-Thierry sector, May 31-July 9, 1918.....	20	656	46	2,123	9	436	112	4,598
Aisne-Marne offensive, July 18-25, 1918.....	20	459	30	911	2	39	76	2,015
Marbache sector, Aug. 9-22.....		8		3				15
St. Mihiel offensive, Sept. 12-Sept. 16.....	6	334	4	257		4	16	903
Meuse-Argonne (Champagne), Oct. 1-Oct. 10.....	43	862	6	480	6	141	95	2,369
Meuse-Argonne offensive, Nov. 1-11.....	20	467	6	206	3	55	45	1,218
Total.....	115	2,862	92	4,099	24	962	356	11,612

AVIATION CASUALTIES.

The following table shows the casualties sustained by the Marine Aviation forces between April 6, 1917, and November 11, 1918:

Character.	Officers.	Enlisted men.	Total.
Killed in action.....	2		2
Died of wounds received in action.....	1		1
Died of accident.....	6	6	12
Died of disease.....	1	25	26
Died of other causes.....	1		1
Wounded in action.....	2	3	5
Total.....	13	34	47

TOTAL MARINE CORPS DEATHS.

From April 6, 1917, to September 10, 1919, 131 officers and 3,489 enlisted men died; a total of 3,620 Marine Corps deaths from all causes.

CASUALTIES IN THE DOMINICAN REPUBLIC.

During the period between April 6, 1917, and November 11, 1918, 1 officer was wounded in action, 4 enlisted men were killed in action, and 13 wounded in action in the Dominican Republic in operations against bandits.

Two marines died when the *Cyclops* was lost at sea.

Of the 60 naval medical officers, 12 naval dental officers, and 500 enlisted men of the Medical Corps of the Navy serving with the marines in the American Expeditionary Forces, 1 commissioned officer and 12 enlisted men were killed and 8 commissioned officers and 101 enlisted men were wounded or gassed.

RIFLE PRACTICE—RIFLE AND PISTOL COMPETITIONS.

In recent years the Marine Corps has devoted a great deal of time and energy to rifle practice, believing that one of the first requirements of a soldier is to know how to shoot. During the period of the war target practice was given special attention, and in 1918 it was announced that no enlisted man would be sent overseas who had not qualified as marksman or better. This announcement created even greater interest than before in target practice among the enlisted personnel, and gratifying results were obtained on all rifle ranges.

The percentage of marksmanship qualifications of the enlisted personnel of the Marine Corps on various dates in the American Expeditionary Forces and in the United States was as follows:

Date and place.	Per-centage.
Entire Marine Corps, Apr. 6, 1917.....	48.0
Marines of American Expeditionary Forces, Nov. 11, 1918.....	68.1
Entire Marine Corps, Nov. 30, 1918.....	67.1
Entire Marine Corps, Mar. 1, 1919.....	66.0
Marines of American Expeditionary Forces, July 1, 1919.....	81.6

The number of marksmanship qualifications of the last six years in the Marine Corps was as follows:

Classification.	1914	1915	1916	1917	1918	1919
Expert rifleman.....	596	883	1,287	1,709	6,019	7,851
Sharpshooter.....	2,749	2,536	1,984	2,373	8,933	10,642
Marksmen.....	757	1,471	2,594	6,011	14,826	21,918
Total qualified.....	4,102	4,890	5,865	10,093	29,778	40,411
Percentage.....	0.415	0.493	0.591	0.379	0.670	0.828

During the period of the war the Marine Corps rifle teams, teams representing Marine Corps units, and teams partly composed of Marines, engaged in seven important competitions, and won many of the most important trophies given for marksmanship.

MARINE CORPS AVIATION.

On April 6, 1917, the marine section of naval aviation consisting of 5 officers and 30 enlisted men, was stationed at the naval air station, Pensacola, Fla., as part of the complement of that station.

During April, May, and June, 1917, the marine aviation section was transferred to a combination land and water station for marine fliers at the navy yard, Philadelphia, Pa., and the training of personnel for land flying began. The official designation of this organization was the Marine Aeronautic Company. Training in observation balloons was done in addition to the heavier-than-air work.

On October 12, 1917, this Marine Aeronautic Company, then consisting of 34 officers and 330 enlisted men, was divided into the First Aviation Squadron, consisting of 24 officers and 237 enlisted men, and the First Marine Aeronautic Company, consisting of 10 officers and 93 enlisted men.

On October 14, 1917, the First Marine Aeronautic Company was transferred to Cape May, N. J., and took over the naval air station at that place.

On December 7, 1917, the First Marine Aeronautic Company, then consisting of 12 officers and 133 enlisted men, was ordered to Naval Base 13, Ponta Del-

gada, Azores, arriving there on January 21, 1918. This organization operated an antisubmarine patrol station of 10 R-6 seaplanes, 2 N-9 seaplanes, and later 6 HS-2-L flying boats until the station was ordered abandoned on January 24, 1919, when it was ordered to return to the United States, arriving at the marine flying field, Miami, Fla., March 15, 1919. Maj. Francis T. Evans was in command from January 9 to July 18, 1918, and Maj. David L. S. Brewster from July 19, 1918, to January 20, 1919.

On October 17, 1917, the First Aviation Squadron was transferred from the marine flying field, navy yard, Philadelphia, Pa., to the Army training field at Mineola, Long Island, where instruction and training were carried on in land flying. On December 31, 1917, this organization was transferred to Gerstner Field, Lake Charles, La., for advanced training.

In March, 1918, the marine flying field, Miami, Fla., was established, and on March 31, 1918, the First Aviation Squadron was transferred to that field from Lake Charles, La.

Four marine squadrons of land-fighting planes and a headquarters company were organized to operate under the Navy as the day wing of the northern bombing group, in northern France, which operated in the Dunkirk area against German submarines and their bases at Ostend, Zeebrugge, and Bruges.

On July 13, 1918, the first marine aviation force, consisting of Squadrons A, B, C, and Headquarters Company, left Miami, Fla., and embarked on board the *De Kalb* at New York City for France July 18, 1918. This organization consisted of 107 officers and 654 enlisted men, and when Squadron D joined in October, 1918, it consisted of 149 officers and 842 enlisted men. On July 30, 1918, the Day Wing disembarked at Brest, France, and proceeded to its aerodromes, between Calais and Dunkirk, where they established camp and prepared the aerodromes for use. The personnel of the Day Wing was completely organized and ready for service two weeks after their arrival in France. Part of the planes and equipment of this organization arrived at Pauillac, France, before the organization reached France on July 30, 1918. On September 28, 1918, one plane was delivered to the Marine Day Wing.

On October 5, 1918, Squadron D of the Day Wing, consisting of 42 officers and 188 enlisted men, arrived at Le Fresnoe aerodrome, completing the four squadrons of the Day Wing. During the month of October additional planes were delivered to the Day Wing.

In order to prevent the personnel, who were completely trained and ready for action when they reached the front, August 2, 1918, from getting badly out of practice, the commanding officer Day Wing requested permission from the British aviation forces in the vicinity to be allowed to assign certain Marine pilots to operate with their squadrons until the Marine planes were delivered. As many Marine pilots as could be accommodated were operating with British squadrons until the end of the war, and were highly complimented by the British officers. The Day Wing carried out 14 independent raids far behind the enemy lines, did considerable damage, and brought back valuable information.

The organization participated actively and creditably in both offensives on the Flanders front. It was learned after the armistice that one raid resulted in the death of 60 enemy officers and 300 enlisted men. A feat worthy of mention was performed by Marine Corps pilots. A French regiment was cut off by the enemy near Stadenburg. It was decided to attempt to feed them by aeroplane. Marine Corps pilots loaded up with food and flew low over this isolated regiment and successfully dropped 2,600 pounds of food to them in the face of heavy fire from artillery, machine guns, and rifles. This process was continued for two days, until the regiment was extricated.

Maj. Alfred A. Cunningham commanded the Day Wing from the date of its organization to December 7, 1918, except the period August 1 to 7, 1918, during which time Maj. Roy D. Gelger was in command.

While in Europe the Marine flyers served with Squadrons 213 (pursuit squadron), 217, and 218 (bombing squadrons), Royal Flying Corps of England, and with pursuit, observation, and bombing squadrons of the French Flying Corps.

In February, 1918, the Marine aviation section of 8 officers and 40 enlisted men was organized and stationed at the naval air station, Miami, Fla. The personnel of this section was later increased and served at that station throughout the war, taking over the deep-sea scouting of that station. Capt. Thomas R. Shearer was in command.

STRENGTH AT BEGINNING AND END OF WAR.

The strength of marine aviation on April 6, 1917, and on November 11, 1918, was as follows:

Apr. 6, 1917:

Commissioned officers	4
Warrant officer	1
Enlisted men	30

Total 35

Nov. 11, 1918:

Commissioned officers	250
Warrant officers	32
Enlisted men	2, 180

Total 2, 462

STATIONS.

The following are the stations at which marine aviators operated, showing whether they operated independently, with the Navy, or with the Army:

Independently: Marine flying field, Miami, Fla.; balloon company, Marine Barracks, Quantico, Va.; Naval Base No. 13, Azores; marine flying field, Philadelphia, Pa.; and naval air station, Cape May, N. J.

Navy: Marine section naval air station, Miami, Fla.; day wing, Northern Bombing Group, France; and naval air station, Pensacola, Fla.

Army: Roosevelt Field, Mineola, Long Island; Gerstner Field, Lake Charles, La.; and Army balloon schools at St. Louis, Mo., and Omaha, Nebr.

PLANES OPERATED BY MARINES.

The number of planes operated by marine aviators at Pensacola, Fla., on April 6, 1917, was four, and the type AH Curtiss.

On November 11, 1918, the following planes were operated by the personnel of marine aviation:

Marine flying field, Miami, Fla.: De Haviland 4's, Curtiss JN's, Thomas-Morse scouts, and M-1 defense planes.....	118
Naval air station, Miami, Fla.: HS-1-L, and HS-2-L flying boats, and R-6 Curtiss seaplanes.....	24
Balloon company, Quantico, Va.: N-9 and R-6 seaplanes.....	3
Caquot and kite balloons.....	4
Naval Base No. 13, Azores: R-6 and N-9 seaplanes, and HS-2-L and HS-1-L flying boats.....	18
Northern Bombing Group, France: De Haviland 4's and 9's.....	177

MARINE AVIATION STATISTICS.

Marine squadrons overseas in France.....	5
Total officers in France.....	165
Total enlisted men in France.....	890
Marine officers serving with Army Air Service, American Expeditionary Forces.....	6
Overseas, outside of France: 1 squadron, 12 officers, 135 enlisted men, naval base No. 13, Ponta Delgada, Azores.	
Officers completely trained ready for overseas aviation duty in the United States on Nov. 11, 1918.....	100
Enlisted men completely trained ready for overseas aviation duty in the United States on Nov. 11, 1918.....	1, 150
Number of squadrons and companies in United States Nov. 11, 1918.....	3
Total officers in United States on Nov. 11, 1918.....	100
Total enlisted men in United States Nov. 11, 1918.....	1, 150
Total number of cadets under training (at all times).....	225
Cadets completely trained (in all three branches) as bombers, chasse pilots, and seaplane fliers, total commissioned from Oct. 1, 1918, to date.....	175

Raids participated in by Marine fliers serving with the British and French.....	43
Total number of bombing raids completely Marine.....	14
Total pounds of bombs dropped.....	52,000
Number of food raids.....	5
Pounds of food dropped.....	2,600
Number of enemy aircraft accounted for officially.....	12

HOW MARINES WERE HOUSED AND SUPPLIED.

Upon the increase of the Marine Corps from 17,400 to 30,000 and later to 75,500 it became necessary to increase the commissioned, warrant, and enlisted personnel of the quartermaster's department, in order that it might successfully meet the heavy demands made upon it by the war and by the large increase in strength.

Due to the changes in the method of purchasing rations caused by existing conditions, it became necessary to establish commissary storehouses at San Francisco, Charleston, and Baltimore, at which to maintain reserve supply stores. The Baltimore storehouse was later moved to Philadelphia. At the beginning of the war the Marine Corps had in its depots at Philadelphia, Pa., and San Francisco, Calif., a small surplus stock, which had been accumulated from the regular appropriations, sufficient to outfit 8,500 men; consequently when the war was declared against Germany and the corps was increased, first to 1,323 officers and 30,000 men (act of May 22, 1917), and, secondly, to 3,341 officers and 75,000 men (act of July 1, 1918), it was necessary to provide simultaneously clothing, equipage, food, and shelter for these men.

All supplies, as far as practicable, were purchased in the usual manner, by the bid and tender plan, only those articles on which no bids were received or those controlled by the War Industries Board being allocated.

To furnish accommodations for the increased personnel, cantonments on a large scale were built at Quantico, Va., and Paris Island, S. C., and on a smaller scale at Mare Island, Calif. This work was expeditiously handled and afforded suitable temporary accommodations during the war.

DEPOT OF SUPPLIES AT PHILADELPHIA.

During the period of the war the depot outfitted and equipped 36 expeditionary units for service in France and the West Indies, and over 31,000,000 pounds of various kinds of supplies were shipped on Government bills of lading. The depot departments were so organized that it was only necessary to expand each division of the office forces and increase the number of employees and machines in the manufacturing departments in order to meet the increased demands during the war. The personnel of the depot on June 30, 1919, was as follows: Thirteen commissioned officers, 7 warrant officers, 2 civilians, 102 enlisted men of the regular service, 21 reservists, and 1,095 other employees of all classes, making a total personnel of 1,240.

The activities of the depot at San Francisco were increased during the war by the greater number of recruits to be outfitted on the west coast, and by the establishment of recruits to be outfitted on the west coast, and by the establishment of the subsistence branch at this point. This depot supplied all posts on the west coast, and furnished the supplies for the Marines in the Orient.

The Charleston, S. C., depot was established soon after the declaration of war for the purpose of supplying all posts south of Norfolk, including the West Indies. The storage facilities consisted of 7 warehouses and a total floor space of 124,778 square feet. A total of about 14,287 tons of stores were shipped from this depot during the fiscal year 1919, these stores being valued at approximately \$12,000,000; during the same period approximately 18,000 tons of stores were received, at an estimated value of \$15,000,000. Practically all shipments of supplies of every description for troops in the West Indies are made from this depot.

EXPENDITURES.

The expenditures of the quartermaster's department for the fiscal years ending June 3, 1917, 1918, and 1919, were as shown below, exclusive of appropriations for public works, under the Navy Department, from which figures

the enormous increase in the activities and responsibilities of this department, caused by the war and by the increase in strength, is evident :

Subhead.	1917	1918	1919
Provisions.....	\$1,612,908.30	\$6,725,893.05	\$10,287,965.53
Clothing.....	2,173,501.59	11,123,760.36	20,275,456.01
Fuel.....	248,606.82	590,120.91	989,573.08
Military stores.....	1,520,299.39	6,371,978.10	13,952,476.49
Camps of instruction.....	31,871.04	30,945.83	
Transportation and recruiting.....	620,667.75	1,514,657.77	3,064,009.21
Repairs of barracks.....	216,715.56	3,754,241.58	5,883,065.69
Forage.....	75,018.94	161,614.81	163,132.90
Commutation of quarters.....	164,497.24	402,402.51	363,484.53
Contingent.....	983,984.91	4,864,825.25	8,674,299.61
Expenditures under appropriation, "Reserve supplies, United States Marine Corps"			2,510,527.44
Purchases under second deficiency act from United States Army.....			772,540.00
Total maintenance quartermaster's department, United States Marine Corps.....	7,648,061.54	35,540,440.17	66,936,590.49

Secretary DANIELS. Gentlemen, I have a few other matters that I will present when they reach here from the department. They will be here in a few minutes. I am trying my best to follow your desire to end this matter Thursday afternoon.

The CHAIRMAN. Very well.

Secretary DANIELS. I had not supposed until yesterday that we could do it; but we will be able to do it.

The CHAIRMAN. You will be able to?

Secretary DANIELS. Yes; we will be able to follow your suggestion about that. I can finish in a very few minutes if I may place in the record this matter on the work of construction and another on the work of aviation. I think that is all, except one statement. I will send them to the stenographer.

The CHAIRMAN. You can give them to him to-day?

Secretary DANIELS. Oh, yes; they will be up here in half an hour. That will finish what I have to offer for the record, and then I will finish Thursday with the hearing.

The CHAIRMAN. Very well.

Secretary DANIELS. I wish to take up the personnel question on Thursday, and with a brief ending I can finish certainly Thursday afternoon, I feel quite sure. I worked last night in order to meet your desires, and I will also work to-morrow night.

The CHAIRMAN. All right.

Secretary DANIELS. Mr. Chairman, Admiral Sims's highest and dearest ambition, it would appear, was blasted when this Government gently but firmly declined to permit him to become a member of the British Admiralty. Admiral Sims expresses his deep regret and embarrassment at not being allowed to accept this honor, and related how the King himself had "again asked what news there was from our Government as to the invitation to make me a member of the board," in a letter written from London, January 31, 1918, in which Admiral Sims said :

There is another subject which has caused me some embarrassment, and that is the refusal of our Government to accept the invitation of the British Government to make me an honorary member of the Board of the Admiralty. This is a remarkably complimentary invitation and it was issued only after the authorities had consulted the King on the subject.

Referring to the last cable I sent on this subject, at the request of Sir Eric Geddes I communicated the reply to him to the effect that our Government thought the appointment would have a desirable effect but that they found it would be displeasing to the other Allies. He, therefore, suggested that the matter be allowed to rest until the other Allies could be communicated with. This he thought best to do when the various Chiefs of Staff came together for the recent Allied Naval Council on January 22. He discussed this matter with both the French and Italian Chiefs of Staff and they not only both declared it was perfectly agreeable to them but they both said they thought it would be a very good thing. In addition, Admiral de Bon said that he thought something of the same kind might be done with respect to his Government, and he said he would let me know about the details of this later.

Yesterday the ambassador sent for me and told me that Sir Eric Geddes had been to see him and explained to him that there was now no objection on the part of the Allies to this appointment being made, and he suggested to the ambassador that this information be communicated to our Government. This, I believe, has been done.

When I was appointed naval attaché the British State Department was notified by the ambassador in a letter of the usual form. I did not see the letter before it went and it included the usual paragraph in reference to presentation of the attaché to the King. Of course, it was a mistake to include this paragraph, as I already had been presented to the King, and the object of the presentation is only that he may be personally acquainted with people in that position. I tried to head the thing off, but it was not successful, and I had to be presented again. At this interview the King showed a most surprising accuracy of information about naval affairs. He knew the details of the latest action between submarines and antisubmarine vessels. He even said that he was sorry to hear that our new destroyers would not be coming out as fast as had been originally thought. I assume that he is kept informed by conversations with the First Lord and the First Sea Lord of the Admiralty. I know that Jellicoe used to go and see him two or three times a month. As for Admiral Wemyss, he and the King were kids together on board ship in their youth and he knew him very familiarly. At this interview the King asked again—

It seems that the King had talked to Admiral Sims before about his becoming a member of the British Admiralty—

what news there was from our Government as to the invitation to make me a member of the board.

Admiral Sims then goes on to say in this letter:

You can therefore readily imagine that the refusal of our Government to accept this invitation is a continuous embarrassment to me.

Imagine, Mr. Chairman, an American admiral, charged with American duty, with headquarters in another country, desiring to be a member of the Admiralty of that other country; and when his own Government, with the true Americanism that dominates it, refuses to allow him to become a member of the British Admiralty, he writes that it is a continuous embarrassment to him. I will say in this connection that it would have been a continuous embarrassment to the American people if the Government had permitted any officer of the American Navy to become a member of the Admiralty of any other nation in the world.

The CHAIRMAN. To be an honorary member, was it not?

Secretary DANIELS. That is what they call it; yes. The same thing applies; just as un-American to be honorary as anything else.

The proposal to make Admiral Sims a member of the British Admiralty was communicated to our Government in the following cablegram from the American ambassador:

LONDON, January 29, 1918.

The King has given his approval to the proposal of the British Admiralty to make Sims an honorary member of the Board of the Admiralty, and has

expressed his hope that the plan will be approved by the Lords of the Admiralty. Approached the Italian and French naval chiefs of staff during their recent visit here and they both expressed the heartiest approval. The French admiral declared that he would at once ask his naval authorities to take corresponding action.

The proposed plan is merely a complimentary expression of the cordial working relations that exist, and Sims's membership in Board of Admiralty will automatically cease when his command here ends. It is a compliment without precedent, no member of another navy ever having been so honored.

Geddes asks me to send this explanation in hope of your approval of the plan. He regards it only as a mark of the high esteem in which the British Admiralty hold the American Navy and as an evidence of their cordial working relations.

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When the cable from the ambassador was brought to me I directed the officer to cable and ask if the British Government proposed also to make admirals of the other Allies in London honorary members of the British Admiralty. I was informed that such was not their purpose, but this distinguished honor was to be given only to the American admiral on duty in London.

While appreciating the spirit of the King and Lords of the Admiralty, the suggestion that an American admiral should hold membership in the Admiralty of another country did not appeal to the American authorities, and I therefore addressed the following letter to the State Department, which was transmitted to the American ambassador at London:

NAVY DEPARTMENT,
Washington, February 2, 1918.

SIR: I have the honor to refer to the dispatch of the American ambassador at London, dated January 29, 1918, to the Department of State, relative to making Vice Admiral Sims a member of the Board of the Admiralty.

The proposal of the British Government to make Vice Admiral Sims an honorary member of the Board of Admiralty has been carefully considered by the Navy Department. The Navy Department views with extreme satisfaction the evidence of cordial cooperation between our naval forces and those of Great Britain. This department is most anxious that these relations should not only be continued but encouraged, and to this end it will make every effort consistent with our well-established international policies.

This Government has adopted the general policy of declining to permit its officers to accept from foreign Governments any decoration or distinctive honors in acknowledgment of their professional qualifications or as a reward for meritorious service. Should this Government sanction the acceptance of an honorary membership to the Admiralty Board by an officer in the naval service of the United States as a complimentary expression of the cordial relations existing between that officer and the Admiralty, its action would unquestionably be viewed as a violation of the policy stated above.

The Navy Department feels that this Government values most highly the offer to bestow such an unprecedented honor upon an officer of the Navy and appreciates fully the splendid spirit which prompts the offer, but it regrets that in order to maintain the principle stated above the offer must be declined.

Sincerely, yours,

JOSEPHUS DANIELS.

The honorable the SECRETARY OF STATE.

This desire of Admiral Sims to be a member of the British Admiralty was in keeping with his desire to accept decorations from foreign Governments. On September 22, 1917, I had written the Naval Affairs Committee of the House of Representatives opposing a joint resolution permitting the acceptance of foreign decorations, and again, in a letter to the chairman of that committee opposing another like resolution, I stated "The department is opposed to the

objects of this act—i. e., the acceptance and wearing of decorations or medals presented by our allies—and desires to express its disapproval thereof." In a letter dated December 30, 1917, Admiral Sims wrote:

The force commander recommends that steps be taken to obtain legislation which will permit United States naval personnel to accept decorations of foreign Governments. Experience in this force demonstrates clearly that such recognition is prized as highly by our personnel as it is by the personnel of foreign service.

That I deny, and for the whole Navy. I do not believe for one minute that it was as much desired by Americans as it was by the British.

Its effect upon morale and efficiency is marked.

I do not concur in that.

The mere fact that the British Government has expressed a desire to award decorations to certain of our ships became known, and its effect was pronounced.

I do not agree at all with any such suggestion, that it had any effect at all upon the courage, the bravery, the high morale of the men of the American Navy.

On July 31, 1918, I sent the following confidential telegram to Vice Admiral Sims:

The State Department has been directed to diplomatically inform all European Governments that this Government does not desire any decorations conferred upon American officers, either Army or Navy. It is desired that this fact be held in confidence in deference to feeling of allied Governments; but this Government does not wish such decorations as press reports say were conferred upon Rodman, Strauss, Bliss, and Pershing. Your action in declining to accept approved.

In the meantime Congress, in the Army bill, without the knowledge of the President or the Secretary of the Navy, had authorized those in the "military forces of the United States serving in the present war," to accept decorations from allied Governments. I understood that Admiral Sims had been offered a decoration by the King of England and had declined it. I cabled him my approval of his declination. I wish that I had been right, and I wish that he had declined.

Five days later—August 4, 1918—Admiral Sims sent the following cable, showing that he had not declined.

The CHAIRMAN. What was that telegram?

Secretary DANIELS. That was quoting the Army bill, saying that men in the foreign service could accept honors. The cable sent by Admiral Sims is as follows:

The following will show my extremely embarrassing position: Having received your 872 authorizing any officer or any enlisted personnel of the military forces of the United States to accept and wear any medal or decoration tendered by any nation concurrently engaged with the United States in the recent war, I informed Rodman, in answer to his inquiry, that he was authorized to receive a decoration from the King upon the latter's visit to the Grand Fleet, and Rodman accordingly received it.

I also authorized Lieut. Commander Carpenter to receive the D. S. O. The King presented it in person several days ago, and Carpenter sailed for home.

In reply to the Admiralty's inquiry I have stated that I would receive the similar decoration for absent officers and men of the destroyers.

I received no official or unofficial notice of the British Government's intention to give me a decoration. There was a notice in the paper about two

weeks ago. Yesterday I received a note from an official of the Palace, stating that the King wished to see me at 2.30, if my duty would permit. He was to receive the naval committee at 3, and I supposed it was concerning them, as I had prepared for him memoranda defining their functions. Instead he presented me with the G. C. M. G., stating that he would have done so before, but was awaiting information from Lord Reading that our Government had authorized our officers to receive decorations, which information he had received. Subsequently, I received the department's dispatches, 9273 and 9275, which was my first knowledge that our Government had disavowed the authorization approved with the Army bill July 9.

The present position is that the officers mentioned and I have accepted the decorations in question in the full belief that we were carrying out our Government's wishes, assuming that the personal refusal of a medal authorized by one's government would be an offense to the government offering it.

The fact of these medals having been presented by the King in person has been published in the press.

The department is mistaken in assuming that I declined the decoration. I could not have done so as it was not offered to me until it was handed to me by the King himself, who stated that he desired to show the appreciation of the British Government. Do you wish that, under the circumstances described above, the medal be returned to the King?

Of course, under the circumstances, I could not do otherwise than send the following cable:

In view of action already taken presumably before the President's request reached the King, there is nothing to be done, and of course, in this delicate matter decorations could not be returned. I take it that no others will be given except such as might be awarded for distinguished and courageous conduct in battle.

It seems that the tender of a position as honorary member of the British Admiralty by the King of England was not known in Great Britain, as the following cablegram printed in the New York World in its issue of May 13, 1920, indicates:

SIMS'S REVELATIONS SURPRISE LONDON.

LONDON, MAY 12.

The statement of Secretary of the Navy Daniels in the controversy provoked by Admiral Sims has created a big sensation here. For, apparently, the proposal that Admiral Sims should join the British Board or Admiralty in a consultative capacity came as a surprise, although it was known when it was made in American circles here.

Admiral Sims's eulogy, later, of Admiral Jellicoe as the true author of British naval success is regarded as a characteristic indiscretion. For it was made in a public speech and at the moment of the acute controversy here between the adherents of Admiral Jellicoe and Admiral Beatty. But this eulogy must be read in connection with the offer of a British naval position made to Admiral Sims previously.

The British order he received was the Grand Cross of St. Michael and St. George, a decoration given ordinarily to Colonials or for services in connection with British colonies.

Mr. Chairman, in the course of these hearings I have had occasion, while giving very high commendation to the great service of the British Navy, to record my feeling in the matter of the barrage and other bold and audacious enterprises, the wisdom of which was proved, which might be conceived as a criticism of that friendly nation with which we cooperated on such pleasant terms and so effectively during the war, and I think it is proper for me to place in the hearing as an expression of the feeling of the American Navy toward the British Navy a brief speech that I made in Great Britain at a

luncheon given in my honor by the Anglo-American Society in London, Thursday, May 1, 1919. With your permission I will present that for the record.

The CHAIRMAN. Mr. Secretary, will you not read that speech?

Secretary DANIELS. I will be glad to, Mr. Chairman.

Secretary Daniels here read aloud the speech referred to, which is here printed in the record as follows:

Extracts from address of Hon. Josephus Daniels, Secretary of the Navy of the United States, at a luncheon given in his honor by the Anglo-American Society and the Sulgrave Institution, in London, Thursday, May 1, 1919:

It is, I believe, more than a coincidence that this meeting of the Anglo-American Society which the American Secretary of the Navy and distinguished naval officers are privileged to attend, is held on the anniversary of a day that commemorates a notable American naval victory. On May 1, 1918, Commodore George Dewey, afterwards made "The Admiral of the Navy of the United States," in the early morning passed the torpedoes and obstructions in Manila Bay and won the battle which gave new prestige of the Navy of our country and added a new luminary in the firmament of fixed naval stars. Upon every ship flying the Stars and Stripes to-day there will be fitting recognition of this anniversary, a day which shines in our calendar. We, in America, can never forget the spirit shown by the brave Admiral Chichester, of the British Navy, in the days which followed Dewey's victory and that memory stirs our grateful appreciation particularly to-day. It was typical of the friendly relations that have long existed between the two navies. It was prophetic also of the closer cooperation which has been the crowning glory of British and American participation in the great war in which the fleets of these two mighty commonwealths were so united as for the time being to compose virtually one fleet.

We never think of Dewey's delicate and difficult task, after the signal victory, 21 years after, as we celebrate its having attained its majority, without deep and abiding love for the British Navy and the British people because of the wisdom, consideration, and friendship displayed by your Admiral at Manila. It is good on this day to recall, with American gratitude, and, I doubt now, with British pleasure, the outcome of the veiled threat of the German Admiral to contest the fruits of Dewey's victory in the Philippines. Admiral Dewey, out of that appreciation which every naval officer has for his responsibility to avoid trouble between his own and another country with which his Nation was at peace, withheld from his memoirs the full story of the tension almost to the breaking point caused by Admiral von Diederichs in those crucial days. We know enough of the circumstances, however, to understand the narrow escape from hostilities between the Navy of the United States and the Navy of Germany, and we have sufficient information to cause us always to be deeply sensible of the important and helpful part the British Admiral played in those anxious hours.

"What would you do," asked the German Admiral, "If I moved my ship over to the *Olympia* (Dewey's flagship)?"

It required just two words for an answer that we are happy to recall to-day. "Ask Dewey" was Admiral Chichester's Delphic to the uninitiated, and illuminating in the light of history, answer which was so well understood by the German admiral that he never moved his ship over to the *Olympia*, the crisis was averted, and to the day of his death Admiral Dewey held in grateful and fresh remembrance the action of the distinguished commander of the British naval forces in the Far East.

* * * * *

"Match the Navy." This was the keynote of the appeal of the Secretary of the Treasury of the United States during the Third Liberty loan, when, to make ready and effective war upon the submarines, the Navy personnel made such large subscriptions to the third issue as to have their action held up for the emulation of the whole country. The people of Great Britain, particularly the members of the British Navy, who were closely associated with them during the silent watches of the cruel war, can best know whether the United States Navy was worthy of the honor done it by selecting its achievements for national efficiency and national liberty as the high watermark of attainment.

It was our pleasure and we gladly embraced the opportunity shortly after the United States entered the war to send over a portion of our fleet to be associated with your British Grand Fleet. Our fleet and yours acted together to lay mines in the North Sea, to convoy ships bringing troops, to fight the stilettoes of the sea in all zones of danger and in every naval activity courage and skill were united. We kept all other ships of our Navy ready for sailing orders when the Allies felt a larger naval force might be needed, for from the day the United States entered the war there was no thought but readiness for the fullest and quickest cooperation and use of all our sea power where joint naval statemanship felt it could be best employed. It was a gratification to us at home to know that British experts regarded our fleet in home waters well disciplined and ready to come over at a moment's notice, as an invaluable reserve, as indeed we always deemed it. Our fleet at home was kept busy in the invaluable work of training recruits, and especially in training armed crews for merchant ships. It was tedious and, in a sense, work that brought no glory to officers and men. It was well done while our British brothers of the Grand Fleet waited in enforced inaction for the Germans, and suffered a great tedium, and both were making ready for the expected crisis, but each in a different way. Sometimes it is to be feared civilians of both countries never appreciated the essential power and use of those portions of our fleets not in the most infested areas, but removed from the area where we expected—nay, where we hoped—the decisive great naval engagement would give striking proof of the incomparable power of the allied fleets.

In America we hoped for that hour for which all other hours were but preparation. Here your naval fighters, as ours, were kept for the day when in fair combat in the open sea the opposing forces might in battle give the seal and eternal proof that the sea power of our countries would win as notable a victory as Nelson's or Dewey's. That this opportunity was not given, because the Germans knew the fate in store if they dared win or lose all by the sea fight, it must be confessed took away some of the anticipated satisfaction of the men of our navies. But we should remember that the victory was all the more complete, though lacking the glory of a titanic conflict and denying the human satisfaction of demonstrating that the men of the British and American Navy of to-day are of the same stuff as in the days when neither wind nor rain nor guns nor any other power could withstand their naval supremacy. It was the most humiliating spectacle in the annals of naval history—was the tame surrender of the much vaunted fleet that was organized with the boasted purpose to conquer the seas as the Prussian troops were to dominate the land. In truth that inglorious limping spectacle of defeat and disaster had a greater significance of complete undoing in the eyes of the world to-day and in history than could have come from a magnificent victory in a sea duel. It was not thrilling or spectacular. It did not stir the blood—the thing Navy men had made ready for and coveted as their heart's desire. But it did more: Wrote on sea and sky the imperishable doom; the "Thou are weighed in the balance and found wanting" and carried the same lasting message as when these fateful words were interpreted by the prophet of old.

May we not, borrowing the words used by our Secretary of the Treasury of our American naval fighters, give it the larger meaning and employing it to embrace your own and our own Navy's sentiment, say to the civilian peoples of both countries and of all free nations, "Match the Navy." I speak not now of daring service or of liberality or that initiative and skill which the world applauds. To Americans and to British peoples in the vast expense of both countries the call is "Match the Navy" of your country in mutual appreciation, in clear understanding, in full fellowship, and in that loving brotherhood and helpful comradeship which will forever unite the two countries in championship and sacrifice for democracy, liberty, and fraternity.

Why match the Navy? The most beautiful fruit of cooperative effort and sincere friendship the war has ripened for us is the spirit which characterizes the intercourse of our men of the sea. They were privileged to know each other to the core, to plan together and to test each other's knowledge of strategy and tactics and weapons of war, to go down together to the sea in ships unafraid when the perils of the deep called only for men of the best mettle. Together they undertook the most gigantic task known to navies, the barrage of the North Sea, where a mistake or lack of skill meant instant death and where the hardships were too great for any except the stoutest hearts and strongest bodies.

They and their equally brave allies hunted the submarine to his jungle in the trackless sea and together conquered the most insidious and most evasive and most murderous foe, which, without humane instinct, lay in wait for ships bearing noncombatants, sending ruthlessly to watery graves women and children in defiance of every law of the sea except the common law of the days of piracy. They transported millions of soldiers with a safety that seems almost miraculous. We can never forget that British ships brought over a million American soldiers from our shores, and the only limit of this invaluable contribution by the British was the limit of your large facilities. It was a service of such emergency and of such capital importance, that American appreciation is beyond any expression of appreciation in words.

The naval force of our countries were instant wherever protection was needed as well as wherever the foe dared challenge their supremacy. The Navy of my country and yours during those years—we called them fateful then, but history will call them glorious—worked together as a unified organization and came to feel as truly one as if separate flags did not fly above their ships. The flags, it is true, were different, but they symbolized the same consecration to world liberty and the same high resolve to again demonstrate that sea power is, in the last analysis, the determining force of the world. But better than that, or, rather, because of their mutual hardships and comradeship in love and sacrifice, the men of both navies, seeing eye to eye, came to regard each other as fellow crusaders. Ties of personal and national friendship were forged which can never be weakened, ties which are the best and surest guarantee of furnishing its large share of whatever mobile police the world's peace may require. What size this police force may be must be determined by the evolution of the League of Nations, happily, unanimously approved by the delegates from all the allied nations in the peace conference. It must be as powerful as world safety requires and, in the development of the workings of the League of Nations, must be reduced with all other armaments consistent with its decorations. The members of the league recognize that the maintenance of peace requires the reduction of national armaments to the lowest point consistent with national safety and the enforcement by common action of international safety and the enforcement by common action of international obligations. Of one thing there must be no doubt: The end of competitive navy buildings has arrived. It would be a blunder, a calamity equal to a crime, if Great Britain and the United States should enter upon competitive naval buildings, either or both suspicious of the other.

As the common dangers and common experience of men in these two greatest navies brought to the men in each a better appreciation of the fact that their united strength was the most powerful agency to end the dreams of conquest by autocracy, so the continued cooperation in peace of our two great peoples in a league with our allies will be the best assurance of the blessings which will flow to the world out of the League of Nations.

Delighted as this brotherhood is, cemented forever in war for the men of the two navies, the outstanding lesson is that when all the peoples of these two countries know each other as intimately as do the men of the navies, all civilians will "match the Navy," not only in appreciation of each other's virtues but in a full comprehension that only in high resolve to make this good feeling and cooperation permanent can these two enlightened countries fulfill their mission of duty to themselves and responsibility to the world. It is too much to expect that these English-speaking peoples will always be in agreement, that their interests may not sometimes clash, and that there will not be men in each country who would love to drive a wedge which would keep them apart and antagonistic. It is as true of nations as of individuals that differences of opinion, honestly entertained and freely expressed, bind them closer together. When two men always express the same thought, it may be safely assumed that one is the thinker and the other the echo. Strong and virile men wish no such unity. This is equally true of strong and virile nations and have, perhaps, greater application in the case of the United States and Great Britain. In the long ago we had serious differences, or, rather, our Governments did. The peoples, with largely the same impulses and the same traditions, each in their own way have moved toward the same end, which is to make all Governments serve the expressed will of the whole people. But these ancient differences are remembered by us only

to serve and heighten our respect for each other and to give a pride that we drew our inspiration from the common refreshing stream of Runnymede.

We hope—most of us, at any rate, hope—that the foundation of the League of Nations will eventually, perhaps sooner than scoffers imagine, sound the death knell of at least inordinately large expenditure on great fleets. We realize to the full the anxiety—indeed, the urgent necessity—felt in Great Britain to reduce naval expenditures to the lowest level compatible with safety. The United States will, I am convinced, do nothing that international developments do not strictly require us to do to add to the naval burdens of this or any other power. As we recognize the political and geographical necessities which call for great British sea power we are convinced that Britons, on their part, recognize that similar necessities exist in our case. We, too, have a prodigious coast line. We have a great foreign trade, which is bound to grow a carrying trade that will grow with it, and obligations growing out of our League of Nations covenant. The United States does not aspire, as we believe Great Britain does not aspire, to possess much strength at sea that we can impose our decrees arbitrarily upon other free peoples. Such a tradition is wholly foreign to our political nature and utterly out of tune with our traditions. But if the evolution of the League of Nations is not such as its friends and devotees in Europe and in America hope that it may be, if competition in armaments must continue, as in the past, unchecked by any other consideration than a nation's financial capacity, then, regrettable as the choice will be, repugnant as it will be to the American people, it will be essential, from the dictates of elementary national interest, that they shall build and maintain a fleet commensurate with the needs of national defense and with our international obligations.

The CHAIRMAN. Was that the entire speech?

Secretary DANIELS. That was the entire speech.

Mr. Chairman, as to the war activities of the Bureau of Yards and Docks, the construction accomplished under the direction of the Bureau of Yards and Docks since this country entered the war amounts to a total of approximately \$346,000,000, over a hundred millions more than the total value of the Navy's shore improvements previous to the war. Despite the unprecedented demand for labor and materials, new records in construction were made and huge structures that ordinarily would have taken years to complete were built in a few months.

When war was imminent, there was such a rush of recruits that there was no question of securing enough men for the emergency. The necessary training, prior to duty afloat, required an immense increase of training stations; and, beginning in April, 1917, the department ordered work of expansion to proceed with the utmost dispatch and made allotments from the naval emergency fund, besides submitting estimates to Congress for additional appropriations. Provision was, with the utmost speed, made for housing 97,200 men, and construction was continued until there were complete accommodations for 192,875 men in winter and 205,275 men in summer, giving us the largest naval training-camp capacity that any navy ever had in all history.

In line with the policy of equipping and improving navy yards for warship construction, work had been begun in the latter part of 1916 on a program of expansion which involved a total expenditure during the war of approximately \$27,000,000. Works of tremendous magnitude and thoroughly modern in nature were executed at the principal yards, including foundries and machine shops with complete, up-to-date equipment for manufacture and handling of ships' parts, the greatest crane known to exist at the present time.

shipbuilding ways for the maximum warships contemplated, together with piers, storehouses, marine railways, dredging, and all accessories required in line with this new naval policy.

Private plants were financially assisted by the Navy, beginning early in 1917, toward the expansion of their productive capacity to meet emergency requirements in connection with the authorized increase of the Navy. Under careful supervision, direct and indirect financial aid was extended for the construction of many new plants and additions to and extensions of existing ones. It was due to this policy, in which approximately \$70,000,000 was invested, that the Navy owes in large part the tremendous increase in destroyers during the period of hostilities.

The provision of adequate power for the operation of navy yards became a matter of prime importance in view of the industrial expansion rapidly taking place. In all, about \$18,000,000 was expended for this purpose, including large extensions to power plants at Portsmouth, Boston, New York, Philadelphia, Norfolk, Mare Island, and Puget Sound. Training camps and hospitals, both permanent and temporary, required larger power-plant installations, rapidity of installation being essential in many such cases. The Navy is now in a much more secure position than before the war as regards an ample and efficient output of power for its shore activities.

Work on three maximum dry docks was carried on continuously at high pressure during the war, and two other maximum docks were being constructed by outside agencies—the Navy Department having made contracts for the use of the latter. Of these five, the dock at Philadelphia is the only one not completed at this time. The total outlay on the three docks constructed by the Navy will be approximately \$16,500,000, while a special appropriation of \$4,550,000 has been made for the purchase by the Navy of the great South Boston dry dock and its adjacent lands.

The largest office group in the world was constructed by the Navy Department in Potomac Park between April and October, 1918. This group contains floor space of more than 41 acres, has accommodations for 10,000 clerks, and cost seven and a quarter millions of dollars.

The Bureau of Yards and Docks erected for France the largest wireless station in the world, final completion having been obtained since the armistice. Other large construction projects were undertaken abroad, including aviation facilities having an appraised value of \$5,862,753. Admiral Sims sent 521 cables that required action by the bureau, requiring the preparation of 553 separate requisitions. Immediate attention was given to every request.

The bureau's contribution to naval aviation amounted to more than \$30,000,000 in construction work at home and abroad.

Ordnance storage was practically trebled in capacity, the expenditure being approximately \$11,000,000 in this direction. Torpedo and mine filling and storage facilities were provided, the latter having had a direct bearing on the outcome of the war. Submarine bases were established or expanded on an unprecedented scale.

The total funds available for the war work of the bureau approximated \$346,000,000, made up of direct appropriations of \$219,000,000

and allotments of \$127,000,000 from other sources. Of the total, approximately \$335,000,000 were used at home and \$11,000,000 abroad.

(The document in regard to construction submitted by Secretary Daniels is here printed in full, as follows:)

NAVY DEPARTMENT,
BUREAU OF YARDS AND DOCKS,
Washington, D. C.

From: Chief of the Bureau of Yards and Docks.

To: Secretary of the Navy.

Subject: Operations of the Bureau of Yards and Docks.

References: (a) Department's letter Op-12 of May 28, 1915; (b) General Board's letter of March 13, 1915.

WAR PLANS.

1. The above references transmitted the plan to insure readiness for war which furnished the basis for the bureau's recommendations and actions from that date. The necessary investigations were instituted; information was collected and put in shape for use; plans for necessary public works and utilities were prepared, and estimates for appropriations were submitted.

ACT OF AUGUST 29, 1916.

2. This act provided several items of great importance, the most important of which provided for the expansion of ship construction and the increased production of ordnance and ordnance material. The Secretary of the Navy was authorized to improve and equip seven navy yards for the construction of ships, and \$6,000,000 was appropriated for this purpose in addition to a specific appropriation for the construction of a \$1,000,000 structural shop at the Norfolk Navy Yard. This act provided for increasing the area of the Washington Navy Yard and for the construction of a \$600,000 gun shop therein; \$280,000 for the storage of guns and munitions at magazines, yards, and stations, and \$11,705,111 for the construction of a projectile plant and an armor plant. There was authorized, in addition, \$705,611 for the projectile plant. All of these projects were advanced as rapidly as possible.

CIVIL ENGINEER CORPS.

3. The Civil Engineer Corps, at the outbreak of the war, consisted of 41 regular officers. On June 15, 1917, 25 regular officers were appointed, and on January 11, 1918, 10 regular and 20 temporary officers were appointed, after which the corps was increased from time to time by the appointment of temporary and reserve officers until on the date of the armistice there were 74 regular officers, 20 temporary officers, and 110 reserve officers.

BUREAU FORCE.

4. The bureau force was inadequate and consisted of only 63 persons on July 1, 1916. By January 1, 1917, it had been increased to 116; on April 1 to 147; on September 1 to 307; and ultimately to 710 on the day of the armistice. The force carried on the bureau rolls was insufficient to carry on the work with sufficient expedition during the war period and the contracts were made with firms of architects, engineers, and inspectors, who furnished large numbers of their own employees for the work of the bureau.

5. At no time during the war did the bureau find it possible by means of direct employment and by contract to expedite the work as much as it desired, but it believes that every necessity was met. The belief is predicated largely upon the fact that rarely, if ever, was it found necessary to place higher than A-3 priority on any of its work, and generally the priority granted was A-5. It appears conclusive to the bureau that higher priorities would have been granted if the war conditions had been such as to make such priorities appear to be necessary.

BUREAU ORGANIZATION.

5. Under the chief of bureau there are four divisions—i. e., Design Division, Contract Division, Maintenance and Operating Division, and Clerical Division. The assistant to the chief of bureau has direct charge of the Design

Division, which is made up of various subdivisions under the direct charge of project managers, who are responsible for the design of and specifications for the work assigned them.

6. The project managers have charge of classes of work and are, respectively, managers of navy-yard development, dry docks, power-plant development, armor and projectile plants, ordnance plants, aviation, submarine bases, fuel, radio stations, hospitals, training camps, and marine stations.

7. The Contract Division has cognizance of all contracts; the Maintenance and Operating Division has charge of current expenditures for maintaining and operating the various yards and stations, and the securing and records of transportation equipment.

CONTRACTS.

8. During the first six months of the war period 62 contracts were awarded on the percentage basis, for the reason that time was an essential element, and the urgency of the case would not permit of preparing detailed plans before the work was undertaken. Information secured by the bureau before the declaration of war enabled the bureau to secure good contractors for this class of work, who cooperated fully with the bureau, and finished the projects quickly and at as reasonable a cost as could be expected.

9. Thereafter contracts were almost all based upon competition, the notable exceptions being the office buildings in Potomac Park, and the supply base at South Brooklyn, which were let on a fixed fee basis, and the camp at Detroit in connection with the construction of the Eagle boats, which was let on the percentage basis. Before January 1, 1918, over 500 contracts, representing approximately \$70,000,000, has been entered into, and during the period from April 6, 1917, to the day of the armistice—November 11, 1918—approximately 1,200 contracts, approximating \$200,000,000, had been entered into.

PLANT EXTENSIONS.

10. Forty-seven projects, the cost of which approximated \$70,000,000, were carried out under the supervision of the bureau. These projects consisted in extending plants and providing new plants to carry out the contracts for ship constructions, the most notable of which are the Squantum plant—erected to enable the Bethlehem Shipbuilding Co. to assemble destroyers, and the building of a new plant for the Erie Forge Co., to provide for shaft and other heavy forgings.

FUNDS AVAILABLE.

11. Direct appropriations of \$219,000,000, and allotments of \$127,000,000 from other funds were made available to cover the cost of the work carried out under the bureau, and, of this amount approximately \$335,000,000 were used used at home and \$11,000,000 abroad.

PUBLIC WORKS ABROAD.

12. The work consisted of the construction of aviation stations in England, Ireland, Italy, and France; fuel-oil stations in France; four hospitals in France and six in Great Britain; and 25 radio stations. Admiral Sims sent 521 cables that required action by the bureau and which required the preparation of 553 separate requisitions. Immediate attention was given to every request. Requisitions were immediately prepared for material to be purchased. The bids were carefully considered, with particular reference to time of delivery and suitability of material for rapid construction work. As soon as orders were placed, expeditors were given instructions to expedite the construction of the material and its shipment. The shipments were followed to tidewater and until each item had been placed aboard a vessel bound for the war zone. In addition to the routine report the bureau prepared special reports giving the data relative to shipment, and sent these reports directly to Admiral Sims. Projects that required plans were given precedence in the bureau, and every effort was made to secure the earliest possible delivery.

13. One of the most important projects was the erection of a high-power radio station in France that required eight steel towers, each 820 feet in height. Plans were prepared and the material purchased and shipped and delivered in France. The French Government decided to build the foundations for these towers, and

erection was somewhat delayed on account of the unreadiness of the foundation. The bureau had assembled a force of approximately 385 reserves who were qualified steel men, and who were enrolled for the special purpose of erecting these towers. At the time of the armistice approximately half of the steel—for four towers—had been erected. Work was suspended at that time and was later renewed under a contract for the completion of the erection of the eight towers.

14. Large demands were made upon the bureau for motor transportation for the several projects abroad, and during the war 727 trucks, 132 trailers, 289 passenger cars, and 237 motor cycles were shipped at Admiral Sims's request. One project called for 40 trucks of special construction, and the bureau was able to place an order for this lot to be manufactured and shipped within six weeks. Plans were changed, however, and trucks of an Army type were used.

15. The bureau is satisfied that every request of Admiral Sims that required action by the bureau was complied with without any loss of time; also that all material shipped abroad was the most suitable for the purposes stated that could be secured in the market.

NAVY YARD DEVELOPMENT.

16. The improving and equipping of navy yards and stations for the construction of vessels required the construction of a large number of industrial shop buildings, power plants, several shipbuilding slips, and storehouses. Also the acquirement of floating cranes and other weight-handling devices, and the improvements of water fronts by dredging and the building of quay walls and piers. These main improvements required a large extension of streets, railroads, and air, electric, water, and sewer systems.

DRY DOCKS.

17. At the outbreak of the war a large dry dock at Pearl Harbor was being constructed by the Navy Department, and large docks at Boston and San Francisco were being constructed by the Commonwealth of Massachusetts and the Bethlehem Shipbuilding Co., respectively. The Navy Department had made contracts for the use of these two docks. On April 30, 1917, the department contracted for another large dock at the Norfolk Navy Yard, and on April 25, 1917, contracted for a similar dock at the Philadelphia Navy Yard. Work was expedited on all of these docks and all are ready for use except the one at Philadelphia, which will probably be completed within the next year. All of these dry docks will accommodate the largest ships now built or building.

POWER PLANTS.

18. The improvement of navy yards required large extensions to the power plants at Portsmouth, Boston, New York, Philadelphia, Norfolk, Charleston, New Orleans, Mare Island, and Puget Sound. A large increase was also necessary at the torpedo factory at Newport, and the powder factory at Indianhead. Training camps and hospitals, both permanent and temporary, required large power-plant installations. In all, approximately \$18,000,000 were expended for this purpose.

NAVAL ACADEMY, ANNAPOLIS, MD.

19. The Naval Academy buildings were designed for 500 midshipmen, allowing a study room and two small bedrooms for each two men, but before the buildings were completed it was necessary to curtail the space for each man and the buildings were made to accommodate 1,200 men. Early in 1917 the necessity for training additional officers was apparent, and on July 13, 1917, a contract was awarded for the construction of two additional wings to Bancroft Hall, increasing the capacity to 2,400 midshipmen. The first appropriation was in the act of March 4, 1917, that carried an item of \$1,000,000. Subsequent acts have increased this to \$3,925,000.

20. The number of midshipmen taxed the facilities in the educational departments beyond their capacity and in the act of July 1, 1918, an item of \$1,000,000 was appropriated for the construction of a new seamanship and navigation building, which is now nearing completion.

OFFICE SPACE FOR NAVY DEPARTMENT.

21. At the outbreak of the war the personnel of the Navy Department was accommodated in a part of the State, War, and Navy Building and in the Navy Annex. June 30, 1916, there were 926 officers and employees in the Navy Department, which number was increased to approximately 8,000 at the time of the armistice. With the expansion of the force it became necessary to hire additional office space in buildings widely scattered in the city, and it was not even possible to get enough space in any one locality to keep a bureau force together. At one time the Bureau of Yards and Docks had its force located in five buildings, scattered from Twelfth and F Streets to Connecticut Avenue and Jefferson Place.

22. The deficiency act of March 28, 1918, carried an item for "temporary concrete office buildings, Navy and War Department," and, acting under this authority the Navy Department contracted on February 25, 1918, for two reinforced concrete buildings to be constructed in Potomac Park, fronting on B Street and extending westward from Seventeenth Street to Twenty-first Street. Each building consisted of a so-called "head house" 60 feet wide fronting on B Street, from which wings 60 feet wide and 500 feet long extended to the rear.

23. The Navy Department Building, with a head house 860 feet long, has nine wings, and the War Department Building, with head house 784 feet long, has eight wings. The total floor area is approximately 1,800,000 square feet, or more than 41 acres, and is sufficient for the accommodation of approximately 10,000 employees. These buildings were completely occupied for the transaction of business by the first week in October, 1918, at which time there were 7,191 persons installed in the Navy Building alone. At that time the Hydrographic Office, Allotment Office, Marines, and Library, had not been transferred to this building. Since that date all of the activities other than the Library have been transformed to the building, and the centralization of the forces in one building has materially facilitated the transaction of the business of the Navy Department.

GENERAL STORAGE.

24. At the outbreak of the war the storage facilities of the Navy were confined to the navy yards and naval stations, and were insufficient for the expansion of naval activities that immediately took place. A large amount of space was hired from private owners and new storehouses were constructed at navy yards. While the immediate needs were met in this way, the operation required larger expenditures than would have been the case if storage were conveniently located at the proper places. The urgent deficiency act of June 15, 1917, provided \$2,800,000 for the purchase and development of the area comprising what was known as the Jamestown Exposition site and adjacent territory at Hampton Roads. This site was selected as one of the most important for increased storage accommodations, and large storehouses were erected at this place.

25. Early in 1918 the department contracted for the construction of a very large supply base at South Brooklyn, N. Y. These supply bases have increased to a very great extent the economy of handling stores. During the war the storage capacity has been increased to about two and two-thirds times that existing at the outbreak of the war.

FUEL-OIL STORAGE.

26. At the outbreak of the war additional fuel-oil storage was under way at Melville, R. I.; Guantanamo, Cuba; Puget Sound, Wash.; and Pearl Harbor, Hawaii. Later, work was started at San Diego, Calif., and Yorktown, Va. Concrete underground tanks were being provided at all of these places, and the tanks have a capacity of 1,440,000 barrels.

27. In December, 1917, the bureau was requested to provide storage facilities for oil at a number of ports in France, and provided three 7,000-ton tanks, two 560-ton tanks, and one 150-ton gasoline tank for Brest, three 3,600-ton tanks at La Pallice, three at Furt, and three at L'Orient.

NAVAL OPERATING BASE, HAMPTON ROADS.

28. The Jamestown Exposition site above referred to has been developed for a fleet operating base and has removed from navy yards activities which were necessary in connection with the operation of the fleet, but which interfered

with the industrial activities of the yards. At the time of purchase the area of the land was approximately 474 acres and by diking and filling this area has been increased to approximately 800 acres.

29. The supply base above referred to is one of the most important elements of the operating base. One of the first uses made of this base was the establishment of a training camp of an ultimate capacity of 14,000 men. In connection with this training camp many special schools have been established.

30. A large area of the eastern part of the base has been assigned to aviation and a large and important aviation station has been developed thereon.

31. On the northwestern water front a submarine base with a capacity for 20 submarines has been established. Two large piers 1,400 feet long have been constructed and a third is now under construction. One of these piers forms the side of the submarine basin, but the southerly side is available for deep-draft ships so that the three piers will furnish 7,000 feet of berthing space for the largest vessels.

SUBMARINE BASE, NEW LONDON.

32. At the outbreak of the war the facilities for submarines were very restricted, and the naval station at New London was considered to be well located for care and operation of submarines. Plans were immediately prepared for converting this station into a submarine base. The water front was improved by the construction of a number of light piers for mooring space, and ashore the necessary shop facilities and housing facilities were provided. This base is sufficient for the convenient accommodation of 20 submarines.

ORDNANCE PROJECTS.

33. The principal public works on account of the Bureau of Ordnance were the increase of the Washington Navy Yard for gun production; the torpedo station at Newport for torpedoes; the armor and projectile plants at South Charleston, W. Va.; and mine plants at St. Juliens Creek and Yorktown, Ca.; and about 250 necessary buildings at naval magazines and ammunition depots.

RADIO STATIONS.

34. At the outbreak of the war commercial radio stations were taken over, but required considerable improvement which was immediately undertaken. Three large high-power radio stations were undertaken—one at Cayey, P. R., with three 600-foot towers; one at Annapolis, Mr., with four 600-foot towers; and one at Croix d'Hins, France, with eight 820-foot towers. The construction of these stations was expedited. Towers were erected at several of the older stations to increase their capacity, and a considerable number of steel radio towers was purchased for the Cuban Government. Radio compass stations have been built along the coast.

AVIATION.

35. At the outbreak of the war the only naval air station in the United States was at Pensacola, Fla. Coastal stations were started soon after the outbreak of the war and were extended as necessities arose. Several air stations were erected in Europe during the period of the war.

36. One of the largest undertakings during the war period was the establishment of the helium plant at Fort Worth, Tex., connected with the gas supply of Petrolia by a pipe line 104 miles long. This plant was not completed before the armistice.

37. The production of aircraft required shop facilities that were not in existence at the time of the declaration of war, and the necessary shops were constructed at the Philadelphia Navy Yard at a cost of approximately \$7,000,000.

TRAINING CAMPS.

38. Prior to the outbreak of the war there were four permanent naval training stations with facilities for approximately 6,000 men in training at a time. Recognizing the importance of preliminary training ashore, the department ordered immediate expansion of existing stations and the construction of others. Allotments were first made from the naval emergency fund in April, and estimates for additional appropriations were made to Congress. The largest expansion was at Great Lakes. Provision was, with the utmost speed, made for housing 97,200 men in sanitary, properly heated and ventilated buildings

located at 30 different places. Building was continued until quarters and auxiliary buildings were provided for 192,875 men in winter and 205,275 men in summer. Camps included barracks, mess halls, drill halls, swimming tanks, schools, and dispensaries.

39. In the earliest camps less floor space and less cubic feet of space per man was furnished than was desirable, and the later camps were improved in this respect until 42 square feet of floor space and 450 cubic feet of space were furnished per man. Based upon the earlier quantities, the camps would accommodate a very much larger number of men than above stated.

40. The cost of training camps constructed up to December 1, 1917, was approximately \$19,000,000, and the total cost of all camps that have been constructed is approximately \$59,000,000.

HOSPITALS.

41. Previous to the war period the Bureau of Yards and Docks had prepared tentative plans for emergency base hospitals and had outlined a method of procedure to utilize existing hospitals by expansion. The emergency act of June 15, 1917, contained an item of \$1,350,000 for hospital construction, and later acts provided \$15,000,045 for the same purpose.

42. Hospitals were provided at 23 places in the United States and at 13 places abroad. Over 200 portable buildings for hospital use were shipped from the United States and erected overseas.

43. Most of the temporary hospitals were of wood construction, but those at Brooklyn and Wards Island, N. Y., Philadelphia, Pa., and Norfolk, Va., and some at Charleston, S. C., were stuccoed.

MARINE CORPS PUBLIC WORKS.

44. Large training camps were constructed at Quantico, Va., and Parris Island, S. C., and a permanent base, which will cost approximately \$5,000,000, was started at San Diego, Calif.

DETAILED STATEMENT.

45. A more detailed statement of the project follows:

Plant extensions.—Early in 1917 it was found necessary, in order to meet emergency requirements for the expansion of the productive capacity of various privately owned plants, for the Navy Department to furnish financial assistance, directly or indirectly, for the construction of many new plants and additions to and extensions of existing plants. The necessary supervision and inspection of all such work, especially as to general efficiency of layout and arrangement of detail, was assigned to the Bureau of Yards and Docks in August, 1917. Some 45 different projects of this character, costing more than \$71,000,000, were carried through to successful completion under various contracts, as listed in the following table:

Plant.	Purpose of extension.	Approximate cost of extension.
Alabama Dry Dock & Shipbuilding Co., Mobile, Ala.	3 mine sweepers.....	\$60,434.53
Baltimore Dry Dock & Shipbuilding Co., Baltimore, Md.	7 mine sweepers.....	128,117.35
Bath Iron Works (Ltd.), Bath, Me.	11 destroyers.....	417,768.28
Chester Shipbuilding Co., Chester, Pa.	4 mine sweepers.....	105,662.65
Wm. Cramp & Sons, Steamship & Engine Building Co., Philadelphia, Pa. (other than Cramp plant).	Various vessels.....	4,404,210.98
Wellman, S. M., Co., Akron, Ohio.	Equipment for destroyers.....	1,246,748.98
De La Vergne Co., East Chicago, Ind.	Various vessels.....	1,500,000.00
Electric Boat Co., Groton, Conn.	Submarines.....	192,552.00
Ford Motor Co., Detroit, Mich.	100 Eagle boats.....	3,500,000.00
Ford Motor Co., Kearney, N. J.	do.....	2,000,000.00
Bethlehem Shipbuilding Corporation:		
Fore River, Mass.	Various vessels.....	2,796,820.32
Quincy, Mass.	Transportation improvement.....	494,000.00
Squantum, Mass.	35 destroyers.....	13,787,285.00
Buffalo, N. Y.	35 turbine sets for destroyers.....	2,907,000.00
Providence, R. I.	112 Yarrow boilers for destroyers.....	1,052,500.00
Worthington, P. & M. Co., East Cambridge.	150 sets pumps for destroyers.....	2,897,633.00
Falk Co., Milwaukee, Wis.	Gears for destroyers.....	800,000.00

Plant.	Purpose of extension.	Approximate cost of extension.
Sturtevant Co., Hyde Park, Mass.	Turbine sets for destroyers.	\$190,000.00
Edward Valve Co., East Chicago, Ind.	Valves.	140,000.00
Chapman Valve Co., Indian Orchard, Mass.	do.	20,000.00
Consolidated Manufacturing Co., Bridgeport.	Safety valves.	68,000.00
Gas Engine & Power Co., Morris Heights, N. Y.	5 mine sweepers.	156,253.92
Griscom Russel Co., Massillon, Ohio.	Equipment for destroyers.	325,000.00
Lake Torpedo Boat Co., Bridgeport, Conn.	12 submarines.	423,375.53
New Jersey Dry Dock & Transport Co., Elizabethport.	2 mine sweepers.	72,188.80
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.	Various vessels.	9,323,773.00
New York Shipbuilding Corporation, Camden, N. J.	do.	4,043,773.44
Pennsylvania Shipbuilding Co., Gloucester, N. J.	2 mine sweepers.	14,971.82
Pusey & Jones Co., Wilmington, Del.	do.	7,563.75
Staten Island Shipbuilding Co., Staten Island, N. Y.	8 mine sweepers; 6 sea-going tugs.	1,175,370.14
Sun Shipbuilding Co., Chester, Pa.	3 mine sweepers.	8,230.60
Bethlehem Shipbuilding Corporation (Union):		
Potrero-Alameda, Calif.	Various vessels.	1,668,010.12
Potrero-Alameda and Risdon, Calif.	do.	2,668,800.00
Columbia Steel Co., Pittsburg, Calif.	do.	135,000.00
Alloy Steel Forging Co., Carnegie, Pa.	4-inch gun forgings.	375,111.51
Chesapeake & Ohio R. R. Co., Newport News, Va.	Coal storage.	324,800.00
Inland Ordnance Co., Bedford, Ohio.	Gun forgings.	210,771.00
Poole & E. M. Co., Woodberry, Md.	500 4-inch guns.	535,360.00
Walter Scott Co., Plainfield, N. J.	250 antiaircraft gun mounts.	159,810.39
Tioza Steel & Iron Co., Philadelphia, Pa.	Gun forgings.	1,800,000.00
Virginian Ry. Co., Sewalls Point, Va.	Coal storage.	382,254.00
Lang Products Co., Whitestone, Long Island.	Airplane propellers.	229,385.65
Erie Forge Co., Erie, Pa.	4-inch gun forgings.	7,700,998.00
Allis-Chalmers Co., Milwaukee, Wis.	Rotor drums and destroyer shafting.	557,106.00
Pollock Steel Co., Cincinnati, Ohio.	Gun forgings.	732,600.00

Thirty-four of the foregoing plants were engaged in the construction of torpedo-boat destroyers, scout cruisers, submarines, mine sweepers, and accessories for these vessels, and of the Eagle boats built by the Ford Motor Co.; two have provided for the storage of coal, one for the production of airplane propellers, and eight for the production of shafting and ordnance material. Many of the above plants were substantially completed and used in the calendar year 1917, and practically all of them were in successful operation before the expiration of the fiscal year 1917-1918. The two largest plants were the torpedo-destroyer plant at Squantum, near Quincy, Mass., costing nearly \$14,000,000, and the Erie Forge Co. plant, at Erie, Pa., costing nearly \$8,000,000.

Squantum plant.—The plant proper occupies about 97 acres of land at the north end of a tract of 700 acres commanded by the Navy Department, located about 5 miles north of Quincy, at the mouth of the Neponset River. The plant consists of a fabricating and assembling shop, with 10 building slips under roof and 6 wet berths, also under roof, and the necessary auxiliary shops, storehouse, wharf, wet basin, launching ways, railroad tracks, streets, street railway connections, etc. The plant is adapted to the rapid construction of light-draft hulls and the installation of the machinery and fittings for such vessels. It is entirely Navy owned. This plant was authorized October 6, 1917; construction work began immediately and progressed during a winter of extreme severity. The fabrication of the ship work by the Bethlehem Shipbuilding Co. (Ltd.) began at the plant in January, 1918; five keels were laid in April, 1918; the first boat was launched in July, and delivered to the Navy on November 30, 1918. The plant was substantially completed in May, 1918, seven months after it was authorized. Up to May 1, 1920, 35 destroyers have been built and launched at this yard by the Bethlehem Shipbuilding Co. (Ltd.), of which 33 are entirely completed at this date, and it is expected that this plant will be turned over to the Navy Department very shortly.

Erie Forge Co.—This plant, located at Erie, Pa., is designed for the manufacture of 4-inch gun forgings, rotor drums, and destroyer shafting, and contracts with the Navy Department called for the production by the Erie Forge Co. of 7,500,000 pounds of forgings and 7,500,000 pounds of drums and destroyer shafting. The plant cost approximately \$7,700,000. Work was started early in November, 1917. The extension consists of four main buildings, as

follows: Open hearth building, 171 by 280 feet; forge shop, 201 feet 5 inches by 364 feet; machine shop, 194 feet 8 inches by 360 feet; heat treatment building, 67 feet 3 inches by 336 feet. There are also a number of miscellaneous buildings, including substation, boiler house, administration building, chemical laboratory, physical laboratory, office building, etc. The open hearth department includes in its equipment two 50-ton furnaces with all accessories. Rapid progress was made on this plant extension, and it was substantially completed and in operation by the Erie Forge Co. before the expiration of the fiscal year 1917-18.

Industrial shop buildings.—There are about 70 permanent buildings of the most modern design. Some of the most interesting are the structural shop at Norfolk, 700 by 300 feet, cost \$1,677,000, contract dated October 12, 1916; same at Philadelphia, cost \$1,883,000, contract dated March 10, 1917; structural shop at New York, 579 by 203 feet, cost \$1,380,000, contract dated July 5, 1917; and one at Mare Island, 699 by 300 feet, now under way, is estimated at \$2,215,000, including auxiliary improvements; machine shop at Norfolk, 600 by 133 feet, cost \$936,000; and machine shop at Philadelphia, 328 by 133 feet, cost \$671,500. These machine shops have 150-ton traveling bridge cranes with hook height of about 70 feet.

The main machine shops at Mare Island and New York were extended and at New York a six-story light machine shop, 94 by 392 feet, costing about \$1,000,000 has been constructed. Modern foundries constructed at Norfolk and Philadelphia cost \$841,000 and \$1,148,000, and were 410 by 180 feet and 650 by 180 feet, respectively. These are equipped with cranes varying in capacity from 5-ton wall cranes to 80-ton bridge cranes. A galvanizing plant 122 by 62 feet was constructed at Philadelphia, and oxyacetylene plants at Philadelphia, Norfolk, and Mare Island. Another oxyacetylene plant is under construction at Charleston, S. C. Miscellaneous small buildings have been constructed at the different yards. Reinforced concrete pattern shops are under construction at Philadelphia and Norfolk.

Shipbuilding slips cover, for Philadelphia, two slips costing \$2,659,000, with runways, cranes, and facilities for 850-foot battle cruisers; for Norfolk, one slip costing \$1,100,000, for 700-foot battleships; for New York, two concrete slips costing \$3,000,000, for 700-foot battleships, one of which, a reconstruction of old slip, is still underway; for Mare Island the reconstruction of old slip for maximum battleship; and for Puget Sound a novel slip costing \$1,056,000 with cranes was constructed, taking advantage of the great tidal variation existing at that yard. This latter slip consists of a shallow dry-dock 900 feet long, 130 feet wide at coping, and with 18 feet of water over blocks at mean high tide. The dock has the advantage of permitting construction of a ship on a level keel, and the ordinary launching risk is eliminated, as ships are launched by flooding dock and floating ship in place. The dock has another advantage in that it may be used as a dry-dock for shallow-draft craft when not needed for ship construction. Other slips constructed are ways for the construction of four submarines under cover at Portsmouth, four destroyer slips at Charleston, S. C., two destroyer ways at Mare Island, ways for two mine sweepers at Puget Sound, two mine-sweeper ways at Philadelphia. At Boston the old slip was extended to take the largest size of supply ship.

Exterior weight-handling devices required were extremely varied in capacity and characteristics to suit the different conditions. The fixed hammerhead crane located on the fitting-out pier at Philadelphia, costing \$875,000 exclusive of foundations, has many interesting features. Its capacity is 350 gross tons at a reach of 115 feet, with a hook height of 145 feet above water. The auxiliary hook has a capacity of 50 gross tons at a reach of 190 feet. On test, this crane lifted on all hooks about 1,010,000 pounds. The shipways at Philadelphia, Norfolk, and New York are designed for two 40-ton cranes of about 150-foot span and four 10-ton cranes of 65 and 78 foot spans on each shipway. The hook height of the 40-ton cranes is about 135 feet above water level. The dock-type shipways constructed at Puget Sound have four revolving and traveling hammerhead cranes of 20-ton capacity at reach of 50 feet and 15 tons at 85 feet with hook height of 105 feet above bottom of dock. Smaller shipways are, in general, equipped with fixed-position revolving hammerhead cranes of 5 and 10 ton capacity at varying heights. Steel storage and bulkhead construction areas were, in general, designed for overhead traveling cranes varying from 5 to 15 ton capacity. Smaller fitting-out cranes of 5 and 10 ton capacity, either fixed or traveling and of the revolving hammerhead type, are either completed or

underway. In addition, five traveling dry-dock cranes of 50-ton capacity, all of the revolving jib type, were contracted for and are nearing completion. These cranes are located two at Philadelphia, one each at Norfolk, New York, and Pearl Harbor.

Floating cranes of 150 gross ton capacity of the revolving-jib type were completed at Norfolk and Mare Island. The Norfolk crane cost about \$360,000; the Mare Island crane, contracted for 16 months later, cost \$700,000.

Water-front construction at Philadelphia included a fitting-out pier, 1,000 feet long by 100 feet wide, at a cost of \$870,000. The fitting-out pier at Norfolk is of concrete sheet-pile construction and will cost \$1,254,000, both exclusive of cranes. The fitting-out pier at Portsmouth was extended 250 feet. The two merchandise piers at Hampton Roads are 1,400 feet long and 125 feet wide. Ten piers, 350 by 20 feet, were constructed at Hampton Roads for submarines. A concrete wharf 1,010 feet long was completed at Pearl Harbor, and also three concrete torpedo-boat piers. Concrete pier and quay wall were constructed at Pensacola and piers and walls constructed at other stations.

Dredging projects covered work at Norfolk, Hampton Roads, Philadelphia, Charleston, Mare Island, with minor work at other stations. At Hampton Roads about 8,000,000 yards were handled.

Marine railways at Boston and Charleston were constructed of 2,000-ton capacity at cost of about \$180,000 each. Foundations for marine railway of same capacity were constructed at Pearl Harbor, and the construction of a marine railway at San Diego was stopped pending change of site. Small marine railway was constructed at Cape May, and others purchased for installation at Great Lakes and Newport.

The Pearl Harbor Dry Dock was formally put in operation on August 21, 1919, after 10 years and 1 month of laborious effort. This structure, as completed under the final design, is 1,000 feet long, 114 feet wide at the blocking level, and 32 feet 6 inches in effective depth. These dimensions are ample to take care of the largest fighting craft now in existence or contemplated, and the overcoming of the difficulties involved in the dock's construction is a matter of historical interest and a source of great pride to the service.

Dry Dock No. 4 at Norfolk was opened on April 1 to receive the battleship *Wisconsin*, having been in course of construction only since November 6, 1916. This dock is 1,005 feet long in the clear, 118 feet wide at blocks, and 40 feet in effective depth. All mechanical accessories are now in working order. The total expenditure represented is approximately \$4,500,000.

The Commonwealth Dry Dock at Boston, which is 1,170 feet long, 125 feet wide, and 43 feet deep, has been acquired by the Navy Department, acting under the authority of the act of October 17, 1918, which carried an appropriation of \$4,550,000 of this purpose.

The Hunters Point Dock at San Francisco is the largest dock on the Pacific coast, having been completed by its owners, the Union Iron Works, in October, 1918. Its dimensions are 1,007 by 115 by 37½ feet, making it fully capable of receiving the largest ships afloat. By the terms of the act of June 30, 1914, the Navy has priority of docking rights in this dock during war time, with an annual rental arrangement to cover peace-time requirements. The dock is excavated from the solid rock, has a concrete lining, and is fully equipped with modern accessories.

Power plant, Naval Academy, Annapolis, Md.—The increase in the number of midshipmen, the extension of Bancroft Hall, and the addition of other buildings at the academy has necessitated a considerable enlargement in the power plant. Additional power-plant equipment installed consisted of two turbogenerators—one 750 direct current to furnish electrical energy to the Naval Academy proper, and one 100-kilowatt alternating-current generator, to furnish additional energy to meet the increased needs of the hospital. One additional boiler was installed in the boiler room and the mechanical stokers on seven old boilers, which were of an old type, from which insufficient boiler capacity could be obtained, were replaced by modern stokers of the forced-draft, underfeed type, which have permitted the old boilers to be operated at considerable overloads.

At a subsequent date, it was found necessary to increase the boiler capacity by the addition of three 400-horsepower boilers installed in an addition to the boiler room.

The changes above outlined have involved an approximate expenditure of \$530,000.

Power plant, navy yard, Boston, Mass.—The increase in the activities at this yard has necessitated considerable extension of the power-plant equipment.

These additions consist, in general, of a 3,750 K. V. A. turbo generator with condenser, auxiliaries, piping, etc.; four 600-horsepower boilers with forced draft, underfeed stokers, foundations, piping, fans, heaters, etc. The air compressor equipment has been increased by the addition of two 2,500 cubic feet per minute and one 5,600 cubic feet per minute reciprocating air compressors, the installation of the last machine requiring an extension to the engine room. New coal weighers have been installed in the boiler room; also, a modern system of conveying ashes from the boilers to an elevated tank outside of the building.

Approximately \$300,000 has been spent on power-plant improvements at this yard.

Power plant, navy yard, Charleston, S. C.—The original power plant at this yard was constructed in 1908 and no additions were made to this equipment until about three years ago, at which time the electrical generating capacity was increased 100 per cent by the addition of a 1,250 K. V. A. turbo generator and an additional battery of 350-horsepower boilers was added to supply the increased steam demands. About this same time the air compressor capacity, originally 2,400 cubic feet per minute in reciprocating compressors, was increased by 5,000 cubic feet per minute turbo air compressor, which more than doubled the former capacity. The latest additions consisted of a 2,500 K. V. A. turbo generator and two 600-horsepower boilers.

About \$800,000 has been spent on boiler plant work at the naval operating base.

Power plant, powder factory, Indianhead, Md.—The increased production of powder at Indianhead in recent years has necessitated large extensions to the power plant. The original electrical generating equipment consisted of three 625 K. V. A. turbo generators. This equipment has been augmented by one 1,875 K. V. A., one 3,750 K. V. A., and one 7,500 K. V. A. turbo generator. The boiler capacity has been increased, first, by two 600-horsepower boilers and, at a later date, the small boilers on one side of the boiler room were removed and replaced with four 1,000-horsepower units, each capable of operating at 300 per cent of rating, so that the boiler capacity originally installed has been more than doubled. Other additions which have been made are a large cooling tower, a spray cooling pond, necessary condensers, pumps, foundations, piping, etc. A small extension to the boiler room was necessary to house additional boilers and a considerable extension to the engine room was made for the two larger turbo generators above mentioned, rotary converters, excitors, and a new switchboard.

Approximately \$1,000,000 has been expended for these improvements to the power plant.

Power plant, navy yard, Mare Island, Calif.—Considerable power-plant equipment has been added at this yard to meet the increased demands for light, heat, and power. The additions consist, in general, of one 3,750 K. V. A. turbo generator; one 5,000 K. V. A. turbo generator; one 8,000 cubic feet per minute turbo air compressor, and one 1,000-horsepower boiler. These additions require extensive piping changes as well as foundations, condensers, pumps, tanks, heaters, and other auxiliaries.

Approximately \$400,000 has been expended for this power plant work.

Power plant, submarine base, New London, Conn.—A complete new power house has been constructed to serve the needs of this new development. The initial equipment is three 1,875 K. V. A. turbo generators, three 823-horsepower water-tube boilers with all auxiliaries such as heaters, pumps, tanks, piping, switchboard, excitors, air compressors, etc. This project also includes the installation of large storage tanks for fuel oil required for the operation of the boilers in the central power plant, also tanks for the storage of Diesel oil used by submarines, with a complete piping system for handling these oils between the storage tanks, power house, and the different piers at which the submarines are berthed. There have also been included underground distributing systems for fresh water, salt water, air, fuel oil, Diesel oil, hot water, and electricity from the power plant to the various buildings, shops, and piers.

Power plant, torpedo station, Newport, R. I.—With the rapid expansion of the activities of the torpedo station in 1917, it was decided to construct an entire new power plant rather than to attempt to expand the old power plant, which contained obsolete equipment, was located in such a position that an extension would have been difficult and because the power plant building was located in such a position that it could better be utilized as a manufacturing

building than as a power plant. A new power plant was constructed in a more advantageous location and the equipment consists, in general, of two 2500 K. V. A. turbo generators with four 500-horsepower boilers and all necessary auxiliaries. The old power plant generated direct current, but to conform to modern navy yard practice the design of the new power plant called for alternating current generating equipment. It was therefore necessary to purchase rotary converters to obtain the necessary direct current for operating old motors in the shop. New motors which have been purchased subsequently are, of course, of the alternating current type, in order that the electrical energy generated may be used direct without conversion.

In connection with the new power plant at the torpedo station, there has been included an extensive distributing system for light, heat, and power from the plant to the various buildings and shops; also, a complete coal and ash-handling plant for the storage and handling of coal from barges to ground storage or direct to the bunkers of the power house, and also for the rapid disposal of ashes.

This complete installation involved an expenditure of \$1,850,000.

Power plant, naval station, New Orleans, La.—An entirely new power plant was constructed at this station, with the exception of the building which had been previously built. The equipment installed consists, in general, of two 625 K. V. A. turbo alternators with boiler equipment, part of which was new and part transferred from the old power plant; also a 3,000 cubic feet per minute air compressor with necessary auxiliaries, consisting of condensers, pumps, fans, heats, piping, etc. This plant is arranged for burning fuel oil.

Approximately \$275,000 has been expended on this project.

Power plant, navy yard, New York, N. Y.—New power plant equipment has been installed as follows: One 2,500 K. V. A. turbo generator, one 8,000 cubic feet per minute air compressor, four 600-horsepower boilers.

The first two items were installed without extending the power plant building. As there was no room in the boiler room, however, for additional boilers to meet the increased steam demands, it was necessary to build an extension to the building. The usual auxiliaries were furnished for this equipment, consisting of condensers, pumps, heaters, tanks, piping and stokers, fans, stack, etc.

On account of the importance of continuing electrical service at this yard it was considered desirable to install an auxiliary connection with the Public Service Co. Frequency changers were therefore installed in a substation at some distance from the main power plant and arrangements were made so that the outside supply of electrical energy could be switched to the main switchboard in the central power plant at any time in case of accident to any unit, or to supply temporary abnormal power demands. The installation of the above-named equipment has involved an expenditure of about \$750,000.

Power plant, naval station, Pearl Harbor, Hawaii.—New equipment which has been purchased for installation in the central power plant at this station consists of a 2,500 K. V. A. turbogenerator, a 3,000 cubic feet per minute reciprocating air compressor and a battery of two 600-horsepower water-tube boilers with the usual auxiliaries, consisting of pumps, heaters, tanks, fans, piping, etc. It was found necessary to increase the length of the boiler room for the installation of the new boilers, but the other items of equipment were installed in the present engine room.

Approximately \$200,000 has been expended for these improvements.

Power plant, naval air station, Pensacola, Fla.—Considerable increase has been made in the power plant at the air station, Pensacola. On account of limited appropriation, however, it was necessary to transfer used equipment from other yards and, in addition, arrangements were made with the Bureau of Ordnance for the transfer without expenditure of funds by this bureau of certain generating equipment originally installed in the war plant of the American Radiator Co., at Bayonne, N. J.

This turbogenerator was 750 kilowatt, complete with condensers, pumps, and other auxiliaries. A 500-kilowatt turbogenerator with auxiliaries was transferred from the navy yard, New York, and certain other auxiliaries were transferred from the navy yard, Norfolk. All of these additions converted the original plant from a direct-current generating plant containing small and inefficient apparatus to an alternating-current plant with modern turbogenerators and auxiliaries; also, considerable improvements were effected in the boiler room.

Approximately \$100,000 was expended for this work.

Power plant, navy yard, Portsmouth, N. H.—The capacity of the power plant has been increased by two 1,000-kilowatt direct-current turbogenerators and a 5,000-cubic-feet-per-minute turboair compressor with necessary foundations, condensers, pumps, tanks, heaters, piping and other auxiliaries. All of this equipment has been installed without any extension to the building. The switchboard has been completely rebuilt and transferred to the gallery above the engine-room floor, in order to provide additional room for the installation of certain of the new units. On account of the small size of the circulating loop furnishing condensing water to the power plant, an entirely new loop of adequate size for present and future requirements was constructed.

Approximately \$350,000 has been expended for these improvements.

Power plant, navy yard, Puget Sound, Wash.—Power-plant improvements which have been effected within the past three years consist of the addition of one 3,750 K. V. A. turbogenerator, two 600-horsepower oil-burning water-tube boilers, and a 6,500 cubic feet per minute reciprocating air compressor, with the usual complement of auxiliaries, including foundations, condensers, pumps, heaters, piping, etc. To supplement the electrical energy required, this yard purchased a considerable amount of current from the Public Utility Co. at very advantageous rates, on account of the fact that the electricity comes from hydro-electric sources.

These improvements require an expenditure of approximately \$350,000.

Power plant, navy yard, Washington, D. C.—The power plant at this yard has been largely increased, and the equipment which has been installed is of a totally different character from the old apparatus. The latter consists of vertical, engine-driven, direct-current generators, while the new equipment consists of three 4,000 K. V. A. alternating current turbo-generators with necessary auxiliaries, such as condensers, pumps, piping, switchboard, exciters, rotary converters, motor-generator sets, etc. The boiler-plant capacity was increased first by the replacing of the old stokers under the 300-horsepower boilers with modern, forced draft, underfeed stokers; also by the recent addition of two 1,000-horsepower boilers in an extension to the boiler-plant building. Practically all of the equipment installed, except the new boilers, was originally manufactured for the central heating and lighting plant which was to have been installed by the Treasury Department to serve all of the various Government buildings in Washington. On account of the delay in the progress on this project, however, the Navy Department made arrangements with the Treasury Department to divert practically all of this material to meet the urgent needs at the Washington yard. This equipment, therefore, was made available and considerable time was saved over that which would have been required had it been necessary to manufacture this equipment.

On account of the importance of continuity of service at this yard, it was considered desirable to install an auxiliary electrical connection with the power plant serving the Capitol. Frequency changers, therefore, were installed in the substation at some distance from the main power plant, and arrangements made so that the outside supply of electrical energy could be switched to the main switchboard in the central power plant at any time in case of accident to any unit, or to take care of temporary abnormal power demands. It was necessary to install frequency changers in this case because of the fact that the characteristics of electrical energy generated at the Capitol power plant are different from the electrical energy generated at the navy yard, which is standard Navy practice of 2,300 volts, 3-phase, 60 cycles.

The changes above outlined have involved an approximate expenditure of \$1,500,000.

Power plants, navy yards, Norfolk, Va., and Philadelphia, Pa.—The largest plants constructed were the new central power plants at the navy yards at Norfolk, Va., and Philadelphia, Pa., where studies showed that the expected increase in power demands would warrant the construction of entirely new and complete plants, designed along the lines of modern practice, and equipped with power-generating apparatus of high efficiency. In each of these plants provision has been made for the installation of 15,000 K. V. A. in electrical generating apparatus, 20,000 cubic feet per minute air compressor capacity, and 9,600 horsepower for boilers at normal rating, with the necessary auxiliaries for the operation of such stations. The cost of each of these projects was about \$3,500,000.

Power plants, training camps.—Power developments for many of the first training camps constructed did not necessitate the construction of independent

power plants, as it was found feasible to increase the capacity of existing facilities. At the Naval Training Station at Great Lakes, however, the great increase in activity resulted in the necessity of obtaining increased plant capacity in the shortest time possible and it became necessary to purchase whatever boilers were available and install them in about 40 boiler houses located at different points on the station where the steam distributing lines would be of minimum length. Electrical energy required was purchased from the public utility company. (Have no record of costs at Great Lakes as project handled by station.)

A new power plant was constructed to serve the enlarged training station at Coasters Harbor Island, Newport. This involved a power plant building with 1,400 K. V. A. capacity in turbo-generators and 2,000 horsepower in boilers. This was made an oil-burning plant, at the request of the Bureau of Navigation, who desired to provide facilities for the instruction of apprentices of the same general character as those which they would handle subsequently on board ships. There were also included in the power plant contract the complete underground distributing systems for light, heat, and power from the plant to the barracks, and also the heating system in each building of the new camp. During the progress of the work it was decided to construct a camp for reserves at Cloyne Field, and a smaller boiler house, with equipment, and the heating and distributing system for this camp were included in the original contract. This entire project involved an expenditure of about \$1,300,000.

When it became evident that the Newport Training Station would require a further enlargement to provide for the rapidly increasing demands for training personnel it was decided to construct another camp at Coddington Point, on the mainland, opposite the original camp. On account of the area included in this development three boiler houses were constructed and a refrigerating plant. The contract for this work also included the complete mechanical equipment of the camp with steam and return mains from the boiler houses to the various camp buildings.

This project was considerably curtailed after the armistice by the omission of certain buildings. The contract for the boiler plants, heating system, and refrigerating plant involved about \$1,250,000.

Another large training station was constructed at Pelham Bay Park, N. Y., the mechanical equipment of which consisted of two boiler plants and the heating system of the camp buildings with necessary interconnecting steam mains. Electrical energy for this camp was purchased from the public utility company. (No record of cost as our section did not handle.)

As at Newport, two training camps were built at the naval operating base, Hampton Roads, Va. The original camp required a boiler house of 3,000 horsepower capacity with steam-distributing mains mostly carried overhead on poles from the boiler plant to the various buildings for heating, laundry, and sterilizing purposes.

The second camp, known as East Camp, required a boiler house of 4,000 horsepower capacity with steam-supply mains carried overhead on poles and return mains of much smaller size in the ground. There were also included the heating system in each of the camp buildings. This was said to be the largest single heating contract ever awarded in this country and involved an expenditure of about \$1,000,000.

Storehouses to the number of over 100 were constructed and of these about 27 were large and permanent. Some of the most interesting being for Boston, 184 by 144 feet of 10 and 8 stories at cost of \$1,640,000; Philadelphia, 363 by 183 feet of 8 stories cost \$1,196,000; South Brooklyn, 2 buildings each 200 by 800 feet of 8 stories, 1 U-shaped, the other solid, at cost of \$5,400,000; cold-storage plant at Hampton Roads, 267 by 118 feet of 4 stories at cost of \$755,000; a 6-story building 118 by 442 feet, a 3-story building 170 by 938 feet, and a 1-story building 170 by 615 feet, also at Hampton Roads, will cost \$900,000, \$1,260,000 and \$450,000, respectively.

Emergency coal-storage plants were constructed at Boston, New York, and Charleston. The New York plant, located at Constable Hook, had a capacity of 700,000 tons of coal and cost \$1,087,000. The Charleston, S. C., plant capacity was 120,000 tons and cost \$271,000. The Boston plant was for 52,000 tons and cost \$243,000. Bunkering depots were constructed at Hoboken and Lamberts Point and Newport News at a combined cost of \$471,000. A plant of 190,000-tons capacity was started at Baltimore, but construction was canceled before work was completed, the amount expended towards this work was \$176,000.

Fuel oil.—*Naval fuel oil station, Yorktown, Va.*—This station is a main fuel oil base for the Navy, and it has been constructed at a point where no improvements existed, a tract of land having been secured which offered natural advantages as to topography, frontage on deep water and location. Storage for fuel is provided in eight reinforced concrete reservoirs, placed underground, each having a capacity of 3,750,000 gallons. A power plant was constructed and pipe lines for steam and oil laid from it to the reservoirs, where the equipment for pumping oil from them is located. A wharf was constructed and the pumping plant for taking oil from tankers and transferring it to the reservoirs located on it.

Naval Gun Factory and navy yard, Washington, D. C.—The scope of the activities of the Naval Gun Factory was practically doubled during the war. To permit the carrying out of these increased activities, old buildings were extended and new industrial and storage buildings were constructed at a cost of approximately \$7,000,000, involving 55 contracts, for which plans and specifications were prepared by the bureau. The expansion of the Naval Gun Factory made necessary the acquisition of additional land to the eastward and westward, which increased the area of the former reservation 70 per cent.

The gun shop constructed at the Washington Navy Yard has three 300-gross-ton travelling cranes and the bureau knows of no other bridge cranes of as great capacity. The highest cranes have a hook height of 100 feet from the floor. The shrinkage pit has 10 compartments and is 100 feet deep below floor. It is designed for 20-inch guns. The shop is 567 by 240 feet and cost \$1,475,000.

Naval proving ground and smokeless powder factory, Indianhead, Md.—In carrying out the program to increase the output of smokeless powder from 20,000 pounds per day to 100,000 pounds per day, the bureau prepared plans and specifications and awarded contracts for some 60 public-works construction projects, at the naval proving ground and smokeless powder factory, Indianhead, Md., involving buildings for the various processes in the powder manufacture and the storage of powder-making materials, the construction of buildings for use as quarters for officers and employees of the station, the construction of docking and coal handling facilities, the increase of fresh water supply by 1,500,000 gallons per day, the construction of concrete roads and walks through the main thoroughfares, a large increase in the capacity of the power plant including the installation of additional boilers and turbogenerators, an extension of the water, sewer, steam, fire protection and electrical distribution system, the extension of the railroad facilities within the reservation and the construction of approximately 13 miles of standard-gauge railroad connecting the proving ground with the Popes Creek branch of the Pennsylvania Railroad at White Plain, Md.

It is estimated that the cost of the work performed during the period of the war; that is, to November, 1918, was \$5,000,000, and that the completion of projects started during the war, but since completed, involve an additional expenditure of \$2,000,000.

Naval ammunition depots.—The facilities for filling, issuing, and storing ammunition were greatly increased at the naval ammunition depots at Hingham, Mass.; New London, Conn.; Iona Island, N. Y.; Lafayette, N. Y.; Lake Denmark, N. J.; Fort Mifflin, Pa.; St. Juliens Creek, Va.; Charleston, S. C.; Pensacola, Fla.; New Orleans, La.; Mare Island, Calif.; Puget Sound, Wash.; Guantanamo, Cuba; and Kuaahua, Hawaii. The available storage space for gun parts and miscellaneous ordnance supplies at Bellevue, D. C., was extended. Quarters and sanitary and recreative facilities were provided to care for increased personnel at ammunition depots.

The designs of magazines, shell houses, filling houses, subsurface magazines, ordnance storehouses, and other structures, were standardized to as great an extent as was feasible, in order to expedite the preparation of estimates, plans, and specifications.

It is estimated that new construction at ammunition depots which was completed or started during the war period cost \$11,000,000.

Naval torpedo stations.—The acceleration of torpedo construction by the Bureau of Ordnance made necessary the provision of additional assembly and storage facilities. The storage available on shore was increased from approximately 2,000 to 7,000 torpedoes, at a cost of about \$900,000. New torpedo storehouses were built, or the construction started, at New London, Conn.; Newport, R. I.; St. Juliens Creek, Va.; Charleston, S. C.; Pensacola, Fla.; Coco Solo, Canal Zone; Keyport, Wash.; Alexandria, Va.; and Mare Island, Calif.

A new torpedo assembly plant was built at Alexandria, Va., at a cost of \$1,300,000, with a normal assembling capacity of two torpedoes per day and a maximum capacity of eight per day. Facilities for torpedo assembly were increased at the naval gun factory and the naval torpedo station, Newport, R. I.

Mine filling and mine storage depots.—For the purpose of filling mines with their charges of T. N. T., a mine-filling plant was constructed at St. Juliens Creek, Va., with a designed capacity to fill 1,000 mines per day with a charge of 300 pounds of T. N. T. A maximum output of 1,500 per day was attained. The plant, with accessory items, cost \$575,000.

To effect the distribution of the loaded mines, storehouses were built at Lake Denmark, N. J.; Iona Island, N. Y.; Newport, R. I.; St. Juliens Creek, Va.; Hingham, Mass.; Pensacola, Fla.; Guantanamo, Cuba; and Kuahua, Hawaii, with a total capacity of 22,000 mines, at a cost of \$800,000.

A reservation of approximately 11,400 acres near Yorktown, Va., was commandeered for the establishment of the Navy mine depot. A mine-filling plant has been constructed, similar to the one at St. Juliens Creek, and other buildings have been constructed for the storage of explosives, empty and loaded mines and mine parts. Buildings are under construction to provide quarters for enlisted and commissioned personnel, and facilities for carrying on the industrial and administrative activities.

The development of the Navy mine depot has included the construction of a standard-gauge railroad 10 miles long, a concrete highway $4\frac{1}{2}$ miles long, a power line, and other industrial and sanitary facilities.

The total cost of the development of the Navy mine depot has been about \$2,750,000, exclusive of the cost of the land.

United States naval projectile plant.—A naval projectile plant was built at Charleston, W. Va., upon a site donated by the citizens to the Navy for the purpose of building an armor plant at that place. The total appropriation was over \$2,000,000, of which \$910,000 were allotted to the Bureau of Yards and Docks for public works construction.

Three main buildings of the most modern type were designed at the Bureau of Yards and Docks, and were constructed during the fall of 1917 and spring of 1918. Though built under war conditions, the buildings are models as to their general arrangement, lighting, and character of construction. Railroad connections with the main line were also built.

United States naval armor plant.—An appropriation of over \$11,000,000 was made available for construction of a plant for manufacture of armor for naval vessels. During the war it was also decided to include in this plant provisions for manufacturing the forgings for the largest naval guns. The location selected by the department was at Charleston, W. Va., on the site donated for the purpose by the citizens. Studies and plans proceeded to a limited extent during the war. The immediate importance of other activities, however, did not permit active work to proceed until the middle of 1918. The designs were sufficiently far advanced to allow construction work to begin in the fall of 1918. The arrangement of the buildings and the plant in general is superior to any other American armor manufacturing plant, and is probably superior to any plant of its kind in the world. The largest capacities for handling of ingots, plates, and guns have been provided for.

Due to unsatisfactory experience with cost-plus contracts and due to the unstable market conditions existing in the fall of 1918 it was decided to build this plant by day labor, making contracts only for such items as structural steel, steel sash, and other specialties. The plant will probably be operating actively early in 1921. It is fortunate that this plant has been provided, because the armor-producing capacity of the country is not sufficient to provide for the battleship program already laid down.

The buildings comprise an open-hearth plant, with three open-hearth and two electric furnaces. This open-hearth plant will be equal in the efficiency of its arrangements to any in the country. It has been entirely designed in the Navy. The forge and furnace building contains the large forging presses and the heat-treatment furnaces. The machine shop contained the heavy machine tools for the work on armor plate and heavy gun forgings. The machine-shop building is one of the largest of its type in existence, being 700 feet long by 318 feet wide. The lighting and crane arrangements are unusually good. The heat-treatment building for guns contains cranes and a heat-treatment pit over 50 feet deep.

The railroad track system is unusually well laid out and will favor economical operation of the plant. The total amount of structural steel in the buildings is approximately 21,500 tons. The open-hearth cranes are of 250 tons capacity, adapted for handling hot metal. The other equipment of the plant is all of proportionate large capacity.

Lafayette Radio Station.—The eight steel towers at the Lafayette Radio Station, which is about 15 miles southwest of the city of Bordeaux, were designed in the bureau, and all structural steel purchased in this country and shipped abroad. The towers are arranged in two parallel lines, four towers on each side, spaced 1,312 feet on centers longitudinally and transversely, the distance from end to end of each line of towers being three-fourths of a mile. Each tower is triangular in plan, 820 feet high and 220 feet center to center of columns at the base. The approximate weight of each tower is 550 tons, the amount of steel in all the towers totaling 4,400 tons.

These towers are higher than any structures in the United States, the Woolworth Building being 792 feet high, and they are surpassed in height only by the Eiffel Tower, which is 984 feet high. The total cost of these towers was approximately \$2,870,000, including the structural steel, radio equipment, erection equipment, camp, transmission lines, handling and transporting of the materials in France, and the completion of the erection by contract. In addition to the structural steel, the material purchased included the equipment for the permanent substation, turbo-generator set, condenser pumps, switchboard, transformers, 1,000 horsepower boilers. The foundations for the towers, the radio power house, water supply, roads, and ground system were erected by the French and the materials supplied by them. The high-power radio station was authorized early in January, 1918, and the design was rushed to completion, the material to be fabricated in this country and shipped abroad for erection by the enlisted force. The award of the contract was made to the Pittsburgh-Des Moines Steel Co. in the same month, and on January 22 the contractor was notified that the number of towers was reduced from eight to seven, as the Bureau of Steam Engineering had decided that the best arrangement from an electrical standpoint would be that consisting of a central tower, surrounded by six at the angles of a hexagon. The location of the site which had been selected, was given by Admiral Sims in his dispatch of February 5, and on February 13 the sources of electrical power which were available were enumerated and it was shown that an independent power plant at this station would be unnecessary. At the same time, a dispatch from Lyons, to Steam Engineering, questioned the advisability of the hexagonal arrangement of the towers. Necessary equipment for the erection forces were prepared as fast as possible, based on obtaining deliveries of equipment at Philadelphia by April.

On March 14 the arrangement of the towers was changed, one additional tower being added, making eight, the scheme being to have four towers in each of two rows. Shipments of materials from this country began in April, 1918, and the construction of the foundations was started soon after. The erection of the steel was begun in September, 1918, with the enlisted force of the Navy and continued until shortly after the signing of the armistice, when all foundations had been completed and approximately 1,000 tons of steel had been erected. The forces which had been enlisted for this work were sent back to this country, and plans were then drawn for the completion of the towers by contract and in May, 1919, the erection was resumed by the Pittsburgh-Des Moines Steel Co., under contract No. 3788. The contract time for completion was January 24, 1920, and the work was completed within that date. After the completion of the installation of all the radio equipment, the station will be taken over by the French Government on the basis of actual cost to the United States.

Aviation activities in the United States.—At the outbreak of the war, the only naval air station in this country was at Pensacola, Fla., which was being used for training aviators, and had limited facilities for handling and housing planes. After the declaration of hostilities, authority for the construction of eight new coastal-patrol stations was granted and after careful study, sites selected. These additional stations, as originally planned, would provide for only 120 men each, and one small 66 feet by 100 feet steel hangar. It was estimated that these stations would cost approximately \$2,400,000 for the entire number to be built.

As an indication of the vast development which took place in naval aviation during the war, it may be noted that single stations have since cost more

than the amount that was estimated for the original eight, and instead of 120 men at a station, facilities have been provided for 1,200 men at individual stations, and instead of one small hangar, there have been placed as many as 15 units of a considerably larger type. The size has also increased from 66 feet wide and 18 feet clear height at Pensacola, Fla., to 200 feet in width with a 50 feet clear height at the naval aircraft factory, Philadelphia. Housing facilities have been provided for a total of 15,000 men, as many as 5,000 men being quartered at Pensacola at one time during the war. Naval air stations were established during the war at the following places:

Chatham, Mass., heavier-than-air and lighter-than-air.
 Montauk, Long Island, heavier-than-air and lighter-than-air.
 Bay Shore, Long Island, heavier-than-air and lighter-than-air.
 Rockaway, Long Island, heavier-than-air and lighter-than-air.
 Cape May, N. J., heavier-than-air and lighter-than-air.
 Anacostia, D. C., heavier-than-air and lighter-than-air.
 Hampton Roads, Va., heavier-than-air and lighter-than-air.
 Morehead City, N. C., heavier-than-air.
 Brunswick, Ga., heavier-than-air.
 Miami, Fla., heavier-than-air.
 Marine Flying Field, Miami, Fla., heavier-than-air.
 Key West, Fla., heavier-than-air and lighter-than-air.
 Coco Solo, Canal Zone, heavier-than-air and lighter-than-air.
 Pensacola, Fla., heavier-than-air and lighter-than-air.
 San Diego, Calif., heavier-than-air and lighter-than-air.
 Akron, Ohio, lighter-than-air.

Schools were established at the following points: Hampton Roads, Va.; Pensacola, Fla.; Santa Rosa, Fla.; Charleston, S. C.; Great Lakes, Ill.; Dunwoody Institute, Minneapolis, Minn.; Seattle, Wash.; San Diego, Calif.; Cambridge, Mass.

Rest stations were established as follows: Waretown, N. J.; Assateague, Va.; Beaufort, N. C.; Charleston, S. C.; Roanoke Island, N. C.; St. Augustine, Fla.; Tampa, Fla.; Indian Pass, Fla.; Islamorada Island, Fla.

Kite-balloon hangars were also erected at Marginal Parkway, N. Y., and Charleston, S. C., and the development of air stations was started for the following locations: Yorktown, Va.; marine flying field, Quantico, Va.; marine flying field, Parris Island, S. C.; Galveston, Tex.

There was also built in record time a naval aircraft factory providing facilities for the construction of all types of planes from the small scouts to the large proposed five-engine triplane. All of the latest developments in the design and construction of factory buildings for aircraft were included. The buildings included in this group were a factory building 400 feet square, a six-story reinforced concrete storehouse, an administration and office building, an assembly shop 1,080 feet long with an average width of 250 feet, a power house and dry kiln and heated lumber storage, a garage and accessory buildings. The total cost of the aircraft factory was approximately \$7,000,000.

Construction was also started on two Canadian air stations at North Sydney and Halifax, the plans for which were furnished by the bureau.

The total aviation expenditures in this country under the Bureau of Yards and Docks during the war was approximately \$30,000,000.

After the armistice the following air stations were abandoned: Montauk, Long Island; Bay shore, Long Island; marine flying field, Miami; Brunswick, Ga.; Miami, Fla.; Galveston, Tex.

United States helium-production plant, Fort Worth, Tex.—A plant at Fort Worth, Tex., for the separation of helium from the natural gas, for use as a buoyant agent in lighter-than-air craft, was designed by this bureau in conjunction with the Bureau of Steam Engineering, and is now being constructed by this bureau. The total cost of the plant, including the purchase and installation of equipment, will approximate \$1,500,000. The equipment is designed to effect the separation of about 40,000 cubic feet of helium per day.

The construction of the plant at Fort Worth for economic reasons, entailed the construction of a pipe line 104 miles in length to convey the natural gas to the plant from the wells at Petrolia, Tex., at a cost of approximately \$1,500,000.

Aviation activities abroad.—The following table shows the location, type, and appraised value of all the air stations operated by the United States naval forces:

Station.	Type.	Total appraised value.	Appraised value of structures and facilities constructed by United States Navy.
ENGLAND.			
Eastleigh.....	Heavier-than-air.....	\$1,317,763	\$247,896
Killingholme.....	do.....	1,562,060	119,701
IRELAND.			
Queenstown (Aghada).....	Heavier-than-air.....	701,060	460,975
Berehaven.....	Lighter-than-air (kite balloons).....	120,125	11,200
Lough Foyle.....	Heavier-than-air.....	289,725	193,575
Wexford.....	do.....	32,800	160,400
Whiddy Island.....	do.....	331,475	138,725
ITALY.			
Lake Bolsena.....	Heavier-than-air.....	252,210	.....
Porto Corsini.....	do.....	350,200	.....
FRANCE.			
Arcachon.....	Heavier-than-air.....	249,175	103,125
Brest.....	Heavier-than-air and lighter-than-air (kite balloons).....	335,250	283,300
Dunkerque.....	Heavier-than-air.....	187,000	175,750
Fromentine.....	do.....	210,200	202,300
Guipavis.....	Lighter-than-air (dirigibles).....	253,200	253,200
Gujan.....	do.....	224,390	211,450
Ile Tudy.....	Heavier-than-air.....	178,965	155,615
L'Aber Vrach.....	do.....	162,148	169,020
La Pallice.....	Lighter-than-air (kite balloons).....	182,055	182,055
La Trinite.....	do.....	94,360	74,905
La Croisic.....	Heavier-than-air.....	165,020	96,170
Moutchic.....	do.....	260,830	155,700
Paimbouf.....	Lighter-than-air (dirigibles).....	708,595	299,395
Paulliac.....	Heavier-than-air.....	1,485,695	1,475,659
St. Trojann.....	do.....	242,600	90,550
Treguier.....	do.....	111,300	32,225
Antingues, headquarters northern bombing group.....	do.....	77,160	77,160
Champagne.....	Heavier-than-air.....	87,005	85,005
Day Wing, marine headquarters northern bombing group.....	do.....	24,719	24,719
Le Frene.....	Heavier-than-air.....	83,353	81,353
Oye.....	do.....	145,325	141,335
St. Inglerert.....	Heavier-than-air.....	147,290	170,290
		10,889,658	5,862,753

Aviation in France.—The aviation stations in France total 22, there being 3 dirigible stations and 3 kite-balloon stations. The dirigible stations at Guipavis, Gujan, and Paimbouf on the west coast of France each had a large wood hangar 109 feet wide by 621 feet long and 80 feet high. This hangar was designed in the bureau and the materials purchased and shipped abroad, the erection being entirely accomplished by the enlisted force under the supervision of members of the civil engineer corps. The hangars were erected in record time, the trusses being built on the ground and swung into place by means of large travelers built on the site. All of the stations included, in addition to the hangars, barracks, storehouses, mess halls, hospitals, garages, repair shops, recreation buildings, power houses, gasoline tanks, and water, telephone, and sewerage systems. The heavier-than-air stations have one or more runways. At the time of the armistice, all of the air stations in France were appraised at a total value of approximately \$5,700,000, which gives some idea of the extent of the construction at these stations. The largest station constructed entirely by the Navy was the assembly and repair station at Paulliac, blue prints showing the location and type of structures being attached.

Aviation in British Isles.—The two extensive seaplane stations at Eastleigh and Killingholme were taken over from the British and additional facilities

provided. The five stations in Ireland at Queenstown, Berehaven, Lough Fogle, Wexford, and Whiddy Island were also taken over from the British and more than doubled in size.

Aviation in Italy.—The aviation training school at Lake Bolsena, Italy, was placed in commission by the United States on February 21, 1918, and the station at Porto Corsini was taken over from Italy on July 24, 1918, for bombing operations against the harbor of Polo. Another air station at Pescara was under construction at the signing of the armistice, but was never commissioned.

Naval and Marine Corps camps.—Prior to the declaration of war against Germany, in the spring of 1917, there were but four naval training stations—one on the Pacific coast at Goat Island, San Francisco, Calif., capacity of 600 men; one at Great Lakes, Ill., capacity of 3,000 men; one at Newport, R. I., capacity of 2,000 men; and one at St. Helena, Va., capacity of 500 men.

Thousands of men in the summer were housed in tents and before cold weather was upon us in the fall of 1917 provision had been made at 30 places for housing nearly 100,000 men, as follows:

	Men in barracks.		Men in barracks.
Bumkin Island, Mass.....	1,000	Key West, Fla.....	1,000
Hingham, Mass.....	500	New Orleans:	
Portsmouth, N. H.....	150	West End.....	250
Newport, R. I.....	8,000	General.....	300
Newport, R. I. (Cloyne Field).....	1,500	Pensacola, Fla.....	1,000
Boston Commonwealth Pier.....	2,000	Great Lakes, Ill.....	20,000
Harvard (radio).....	2,500	Mare Island, Calif.....	4,500
New London.....	2,000	San Francisco, Calif.....	2,000
City Park (Brooklyn).....	2,800	Hampton Roads, Va.....	11,000
Pelham Park.....	5,000	Puget Sound, Wash.....	5,500
Dunwoody Institute.....	100	San Pedro, Calif.....	1,000
Minneapolis, Minn.....	700	San Diego, Calif.....	4,000
Philadelphia, Pa.....	4,400	Gulfport, Miss.....	2,500
Wissahickon (Cape May, N. J.).....	2,000	University of Washington.....	1,000
Annapolis, Md. (officers).....	500		
St. Helena.....	5,000	Total.....	97,200
Charleston, S. C.....	5,000		

Approximately \$19,000,000 had been expended on the establishment of naval training camps to December 1, 1917.

At the signing of the armistice there had been established or constructed at about 42 places, including naval training camps under construction, habitation for about 191,000 men in winter and 205,000 men in summer. Plans were then under way for increasing the capacity at Cape May, Charleston, Hingham, Seattle, and Mare Island.

The following is a complete list of naval training camps and capacities:

	Summer.	Winter.		Summer.	Winter.
Receiving ship, Boston, Mass., South Framingham.....	2,500	2,500	Training station, operating base.....	28,000	28,000
Training camp, Hingham.....	1,600	1,600	Training camp, navy yard, Charleston, S. C.....	3,100	3,100
Training camp, Bumkin Island.....	2,050	1,750	Machinist School Barracks, Charleston, S. C.....	600	600
Training camp, Deer Island.....	500	500	Naval air station, Pensacola, Fla. (some of these barracks were built under naval training camps).....	1,000	.....
Naval radio school, Harvard University.....	4,400	4,400	Training camp, navy yard, New Orleans.....	1,000	500
Fuel oil school, Quincy, Mass.....	75	75	Training camp, West End Park, New Orleans.....	300	300
Naval training station, Newport, R. I.....	25,000	25,000	Training camp, Gulfport, Miss.....	2,000	2,000
Cloyne Field Barracks, Newport, R. I.....	1,600	1,600	Training station, Great Lakes, Ill.....	50,000	50,000
Seamen gunners' school, torpedo station, Newport.....	600	600	Naval auxiliary reserve school, Chicago.....	1,000	300
Submarine base, New London, Conn.....	3,000	2,100	Grant Park Camp, Chicago, including U. S. S. Commodore.....	1,000	500
Miscellaneous schools, district base, New London.....	350	350	Dunwoody Naval School, Minneapolis.....	1,000	1,000
Receiving ship, New York, including Ellis Island.....	2,000	2,000	Naval training camp, Detroit.....	1,200	1,000
City Park Barracks, Bay Ridge, Brooklyn, N. Y.....	2,500	2,500	Aviation schools, Buffalo.....	500	500
Pelham Training Camp.....	5,000	5,000	Aviation school, Detroit.....	100	100
Navy gas-engine school, Columbia University.....	15,000	15,000	Receiving ship, navy yard, Mare Island.....	6,000	4,000
Steam engineering school, Hoboken, N. J.....	2,000	2,000	Naval training station, San Francisco.....	4,500	1,900
Receiving ship, Philadelphia, Pa.....	6,400	6,400	Naval training camp, San Diego, Calif.....	4,000	3,000
Cook's school, Naval Home, Philadelphia, Pa.....	100	100	Naval training camp, San Pedro, Calif.....	3,600	3,600
Wissahickon Barracks, Cape May.....	6,500	6,500	Receiving ship, navy yard, Puget Sound.....	5,000	4,100
Ensigns' school, United States Naval Academy.....	450	450	Naval training camp, Seattle, Wash.....	3,000	3,000
Seamen gunners' school, navy yard, Washington, D. C.....	500	500	Total.....	205,275	192,875
Training camp, St. Helena, Norfolk.....	6,000	4,200			

Great Lakes, Ill.—The United States naval training station at Great Lakes prior to this country's declaration of war had a capacity of 3,000 men, and its capacity had been increased by December 1, 1917, an additional 20,000 men.

To facilitate control the station had been subdivided into a number of small camps, each being a complete unit within itself, as follows:

	Capacity.
Camp Perry, main training.....	7,012
Camp Dewey, main training.....	5,284
Camp Farragut, incoming detention.....	1,753
Camp Decatur, incoming detention.....	1,753
Camp Ross, outgoing detention.....	1,753
Camp Paul Jones, maintenance forces and special schools.....	2,232

Camps Perry and Dewey men were housed in one-story barracks, each house with groups of 72 men, with separate toilet and washroom facilities. Each regiment of 1,700 men is provided with one mess hall, which is divided into small rooms, each having a capacity for one company consisting of 144 men. Each regiment has one executive building with offices and class rooms to accommodate six companies, one storehouse, two power houses, one dispensary, one contagious ward, one drill hall. There is one brig for each camp, also each camp has one guardhouse, one carpenter shop, one mechanics building, and one armory. The barracks are heated by steam heat, served with concrete roads, walks, electric lights, power, sewers, and water.

Camps Farragut and Decatur are designed for the purpose of housing men in groups of 24 men each, with self-contained accommodations, such as messing, sleeping, and latrine facilities. Each of these two camps is provided with a central laundry and disinfectant. There is a separate galley in each camp in which food is prepared and distributed to the barracks in vacuum containers. The men are housed in these quarters for three weeks for observation, prior to

their going into the main training units, and the units are reduced to a small number to facilitate quarantine in the event of the outbreak of contagion.

Camp Ross is designed as an outgoing detention camp. The men here are housed in barracks holding only one-half a company (72 men). There is a separate mess hall for each company and a separate latrine for each company. It was the intention to have all men leaving the station pass through Camp Ross, when they are given final examination to determine whether their general health will warrant their leaving the naval station prior to their being distributed to the fleet.

Camp Paul Jones is constructed for the purpose of housing the maintenance forces of the station, the firemen, ships carpenters, plumbers, electricians, and trouble men. It also houses the yeomen attached to the various offices and contained buildings for hospital school apprentices, landsmen training for yeomen, landsmen training for special branches of the service, ships company, seamen guard, etc.

Hampton Roads, Va.—The buildings at Hampton Road, Va., were constructed on land purchased from the Jamestown Exposition Co.

There were available certain exposition buildings which after they were altered were utilized for administration purposes, recreation purposes, offices and dwellings. These buildings were of a permanent character. Provision was made for 10,000 men in one-story barrack buildings, and 500 men in incoming and 500 men in outgoing detention, making a total of 11,000.

In addition to these, there were constructed storehouses, mess halls, latrines and various gully structures, such as commissary stores, provision stores, bakery, scullery, laundry, tailor, general-building stores, cloth and small stores, machine shops, blacksmith shop, paint shop, plumbing shop, electric shop, and carpenter shop; also Hospital Corps school, rigging school, yeomen's school, music school, and swimming school.

The entire camp provided with concrete roads, walks, sewers, water supply, electric lighting, power, and steam heat.

Newport, R. I.—The permanent naval training station which existed at Newport, R. I., had a capacity of 2,000 men, and by November 1, 1917, this capacity had been increased an additional 8,000 men.

The temporary camps were constructed in two locations: one on Coasters Harbor Island, the site of the permanent training station, which was used for apprentice seamen, yeomen, firemen, Hospital Corps men, etc.; and the other on Cloyne Field, rented land, adjacent to Coasters Harbor Island. This was used for the naval reserve forces.

On Coasters Harbor Island the barracks were of one-story frame construction, being designed to sleep 80 men in cots. Each group of 80 men were provided with a latrine, and a common cafeteria mess hall was provided for the entire camp.

On Cloyne Field the buildings were of a similar type, except that the entire camp was messed in seven distinct mess halls.

All of the buildings at Cloyne Field and Coasters Harbor Island were of a very temporary character, hastily put up by station labor forces and enlisted men, from Army cantonment plans.

The buildings on Coasters Harbor Island were heated from the existing hot water heating system, but the buildings at Cloyne Field were heated from a steam power house which was built for the purpose, the work having been completed sufficiently to provide heat by the end of October, 1917.

Hospital construction.—When the United States entered the World War permission was granted the Bureau of Medicine and Surgery to provide naval hospital facilities to be constructed under the direction of the Bureau of Yards and Docks. Preparations for hospitals at Philadelphia, Pa.; Charleston, S. C.; Key West and Pensacola, Fla.; and New Orleans, La.; were started at once. These hospitals were followed by other emergency construction so that at the signing of the armistice there were provided 23 hospitals in the United States. Hospitals were established at Portsmouth, N. H.; Chelsea, Mass.; Newport, R. I.; New London, Conn.; Brooklyn, N. Y.; Wards Island, N. Y.; Pelham, N. Y.; Grays Ferry Road, Philadelphia, Pa.; League Island, Philadelphia, Pa.; Cape May, N. J.; Washington, D. C.; Annapolis, Md.; Norfolk, Va.; Hampton Roads, Va.; Charleston, S. C.; Paris Island, S. C.; Pensacola, Fla.; Key West, Fla.; New Orleans, La.; Gulfport, Miss.; Great Lakes, Ill.; Mare Island, Calif.; Puget Sound, Wash.

Appropriations totaling \$21,045,000 were made by Congress, of which the sum of \$1,008,742 was returned to the Treasury after the signing of the

armistice, making a net total of \$20,036,258 appropriated for hospital construction.

About 500 buildings exclusive of dispensaries were constructed in the United States providing for a hospital personnel of approximately 17,000 beds. The work included not only the buildings but also heat, lighting, and plumbing facilities.

None of the emergency hospital construction has been abandoned or allowed to go to waste. Most of the buildings were erected on naval hospital and Government-owned reservations. Those few buildings on leased property have been salvaged or turned over to the Government institutions for public use. The emergency hospitals at New London, Conn., and at Wards Islands, N. Y., are now in use, respectively, by the city of New London and the Manhattan State Hospital for the Insane. The hospital buildings at Grays Ferry Road, Philadelphia, Pa., at Cape May, N. J., and about half of the emergency hospital buildings at Chelsea, Mass., have been turned over to the Treasury Department for the use of the United States Public Health Service. The hospital buildings erected at Pelham Bay, N. Y., have been salvaged as far as possible. Its equipment and heating and plumbing systems have been used at other hospitals.

TRANSPORTATION EQUIPMENT.

During the period of the war, April, 1917, to November, 1918, the bureau provided transportation equipment as follows:

Size or capacity.	Num-ber.	Cost.	Size or capacity.	Num-ber.	Cost.
MOTOR TRUCKS.			LOCOMOTIVES—continued.		
1-ton.....	19	\$13,613.19	61-ton.....	1	\$20,500.00
2-ton.....	119	265,144.20	63-ton.....	1	23,150.00
3-ton.....	234	232,144.51			
4-ton.....	17	42,870.73	Total.....	51	651,750.00
5-ton.....	149	376,915.20	RAILROAD CARS.		
6-ton.....	1	3,194.80	<i>Box cars.</i>		
7-ton.....	393	1,443,827.70	30-ton.....	26	54,135.00
8-ton.....	61	197,788.28	35-ton.....	12	22,390.00
9-ton.....	8	30,364.77	50-ton.....	15	26,430.00
10-ton.....	114	489,649.71			
11-ton.....	101	480,239.30	Total.....	53	102,945.00
Total.....	1,288	3,575,752.39	<i>Refrigerating cars.</i>		
PASSENGER AUTOMOBILES.			30-ton.....	6	6,990.00
5-passenger.....	217	175,340.62	<i>Platform cars.</i>		
7-passenger.....	226	508,779.67	20-ton.....	2	3,141.00
Total.....	543	684,120.29	15-ton.....	6	4,050.00
Motor cycles.....	355	27,914.55	Section inspection cars.....	4	1,246.00
LOCOMOTIVE CRANES.			Total.....	12	8,437.00
10-ton.....	7	59,500.00	<i>Gondola cars.</i>		
12-ton.....	1	8,392.00	40-ton.....	28	68,770.00
15-ton.....	72	1,285,945.00	50-ton.....	4	13,308.00
20-ton.....	59	1,057,616.00			
25-ton.....	4	56,896.00	Total.....	32	82,078.00
30-ton.....	3	69,660.00	<i>Flat cars.</i>		
Total.....	146	2,538,009.00	30-ton.....	3	510.00
LOCOMOTIVES.			40-ton.....	206	295,032.00
3-ton.....	1	1,850.00	50-ton.....	107	132,541.00
4-ton.....	1	1,750.00	50-ton.....	62	139,686.00
7-ton.....	1	5,100.00	75-ton.....	2	5,580.00
10-ton.....	1	3,900.00	8,000-gallon (tank car).....	1	3,750.00
21-ton.....	3	21,950.00	Total.....	381	577,099.00
25-ton.....	2	18,200.00	<i>Dump cars.</i>		
26-ton.....	1	10,840.00	1 cubic yard.....	4	478.00
28-ton.....	1	6,775.00	5 cubic yards.....	6	4,320.00
30-ton.....	2	24,000.00	6 cubic yards.....	28	26,201.00
32-ton.....	1	7,600.00	12 cubic yards.....	24	54,084.00
35-ton.....	3	38,080.00	16 cubic yards.....	17	72,888.00
38-ton.....	2	17,550.00	50-ton (coal car).....	4	12,320.00
39-ton.....	3	29,550.00			
40-ton.....	5	49,000.00	Total.....	83	170,291.00
45-ton.....	5	71,485.00			
50-ton.....	9	152,200.00			
60-ton.....	8	148,270.00			

Total cost of transportation, \$8,425,386.28.

Secretary DANIELS. Mr. Chairman, the matter in regard to aviation I will bring to you on Thursday, and that will conclude my hearing.

The CHAIRMAN. Very well. The committee will stand adjourned until 10 o'clock on Thursday morning.

(Thereupon, at 12 o'clock m., the subcommittee adjourned until Thursday, May 20, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

THURSDAY, MAY 20, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in Room 235, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, and Keyes.

The CHAIRMAN. The committee will please come to order. Will you proceed, Mr. Secretary?

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Mr. Chairman, when I concluded the hearing on Tuesday I was speaking of aviation. Naval aviation grew, in war period, to force of nearly 50,000. When hostilities ended we had in naval aviation, including marines, a force of 48,789 officers and men, nearly as many as were in the entire Navy when I became Secretary, in 1913. These comprised 2,835 officers and 32,873 men in the naval flying corps, with 10,579 men of other naval ratings assigned to aviation duty, and 282 officers and 2,180 men in the Marine Corps aviation section. A total of 18,736 officers and men were in service abroad, as follows:

	Navy.	Marines.
Officers.....	1,237	182
Enlisted men (aviation ratings).....	8,215	1,030
Enlisted men (aviation duty, miscellaneous ratings).....	8,072	
Total.....	17,524	1,212

There were in operation in Europe 51 aviation units, including schools, detachments, patrol stations, and supplies and repair bases. Twenty-seven stations were built in Great Britain, France, and Italy. The first organized unit of the American armed forces to land in France was the naval aviation detachment which reached Bordeaux June 5, 1917. Eighteen stations were built and operated in France, stationed at various points along the coast and mainly engaged in antisubmarine patrol. The Northern Bombing Group established in northern France, cooperated with the Dover Patrol in aircraft raids over the German submarine bases at Bruges, Ostend, and Zeebrugge. Our naval aircraft abroad made some 5,691 flights, a total of 791,398 nautical miles. Reports state that during the last 10 months of hostilities no convoy protected by our naval aircraft was successfully attacked. Thirty-nine attacks on enemy submarines were accredited to our aviation forces operating in European waters. Twenty-four naval aviation units were in operation in America, patrol operations being

carried on by two stations in Nova Scotia, 9 in the United States and 1 in Panama, the entire Atlantic coast and Canal Zone being patrolled. We maintained a number of training and experimental stations, supply and repair bases, and schools. Naval aircraft flew a total of 2,455,920 nautical miles on patrol duty in home waters, and 10,949,340 nautical miles in training.

United States naval aviation has to its credit notable achievements—the first flight across the Atlantic, made by the *NC-4*; the flight of the dirigible *C-5* from Montauk, Long Island, to St. Johns, Newfoundland, 1,050 nautical miles in 25 hours and 50 minutes; the records made in 1912, 1913, and 1914 by our flyers when naval aviation was in its infancy; the use of naval aeroplanes with the fleet in Mexican waters, scouting over the trenches at Vera Cruz; the first flight made by an aeroplane from a warship, and others which have marked the development of this branch of the service. In 1911 five officers were assigned to aviation duty, and their equipment consisted of two machines. In 1916 the personnel had grown to 318, equipped with 30 heavier-than-air machines. In 1918 naval aviation had a personnel of nearly 50,000 with a flying equipment of over 2,600 heavier-than-air machines and 580 lighter-than-air craft. From 1911 to 1914 the total appropriations made by Congress for naval aviation amounted to \$55,000. The act of March 3, 1915, appropriated \$1,000,000; that of August 29, 1916, \$3,500,000. The total appropriations during the war period amounted to about \$285,000,000, of which \$97,000,000 was withdrawn after the end of hostilities. The following table shows the appropriations made by years:

Table showing appropriations, personnel, and flying equipment.

Fiscal year.	Act of—	Appropriation, fiscal year.	Calendar year.	Personnel.	Machines H-A.	Machines L-A.
1912.....	Mar. 4, 1911	\$25,000	1911.....	5	2	.....
1913.....	Aug. 22, 1912	10,000	1912.....	16	7	.....
1914.....	Mar. 4, 1913	10,000	1913.....	28	9	.....
1915.....	June 30, 1914	10,000	1914.....	95	12	.....
1916.....	Mar. 3, 1915	1,000,000	1915.....	240	16	.....
1917.....	Aug. 29, 1916	3,500,000	1916.....	318	30	.....
1917.....	June 5, 1917	11,000,000	1917, Apr. 6..	201	54	3
	Apr. 7, 1917	3,000,000	1917, Dec. 3..	1,602	1,961	50
	Mar. 4, 1917	5,133,000	.....	.....	.....	.....
		19,133,000	.....	.....	.....	.....
1918.....	Oct. 6, 1917	45,000,000	1918.....	50,369	2,639	560
1919.....	July 1, 1918	1230,383,119	1919.....	4,213	1,677	159
1920.....	July 11, 1919	25,000,000	1920.....	5,562	1,448	188
		314,071,119	.....	.....	.....	.....

¹ Total appropriated..... \$314,071,119
 Withdrawn by act of Feb. 25, 1919..... 97,000,000

Total..... 217,071,119

Here is a fuller statement in regard to the aviation service during the war, which I will not take the time to read. This is the matter I spoke of on Tuesday, and I offered for the record.

The CHAIRMAN. Will you put it in the record?

Secretary DANIELS. I will put it in the record; yes, sir.

(The matter submitted by Secretary Daniels is here printed in full in the record as follows:)

RECORD OF DEVELOPMENT OF AVIATION IN THE UNITED STATES NAVY.

NAVAL AVIATION.

General.—In considering the growth of aviation in our Navy it is of more than passing interest to note the wonderful development of the art of flying, which has been so prodigious in the very few years in which it has been possible to practice it. It seems incredible that the feat of Bleriot in crossing

over the channel in 1900 antedated flying over the Atlantic only by 10 years, and that we can only go back nine years for the first employment of aircraft in war. In the war between Italy and Turkey in 1911 Italy sent three or four French exhibition machines to the front with her army. These machines showed conclusively the value of aviation for military scouting purposes, but as the Turks had no aviation whatsoever the war did nothing to develop the airplane or the airship.

In the Balkan War which followed, aircraft were used. The aviation personnel, however, was made up of foreign and hired fliers, who were not perhaps interested in including combat as a part of their activities, so that no great experience was gained through this conflict. In 1914, therefore, not only the United States, but all nations were ignorant of the extent of the demands that were to be made on aviation, and of the development which aviation would undergo immediately that it entered the arena of war. At the outbreak of hostilities France had about 800 flying machines of a heterogeneous type. England had not begun to take up aviation seriously and had about 100 planes. Germany was far better off than any other European power. She had devoted great attention to the development of Zeppelins, and in addition to having certain of these units, upon taking up arms, the Tonton was equipped with about 500 airplanes of a standardized type, and had an organization which permitted production along acceptable and standard lines.

As the war progressed, military aviation over the land developed intensively. Its purposes and ends soon became well defined. In naval aviation, as in naval warfare generally, one phase was intensified, namely, that of suppressing the submarine. Aircraft, both heavier and lighter than air, demonstrated their great usefulness for patrolling naval areas and were employed extensively in the North Sea, the Channel, and over the Adriatic for this purpose. Toward the end of the war the British grasped the importance of making aviation a definite part of her naval establishment and created the means for permitting airplanes to accompany the Grand Fleet.

EARLY DEVELOPMENT.

Pioneer experimentation.—Although Langley in 1896, at Quantico, had given the first scientific demonstration of aeronautical principles, and the Wrights at Kitty Hawk in 1903 had made the first flight in a heavier-than-air machine carrying a pilot, it was not until the early part of 1911 that the first aircraft capable of operating from the water was developed. This craft was built by an American, and its first successful flight marked the beginning of heavier-than-air naval aviation. However, prior to this time, November 14, 1910, Mr. Eugene Ely carried out the first successful experiment at Hampton Roads in flying a Curtiss land-type biplane from the deck of the U. S. S. *Birmingham*. A temporary platform was placed forward on the deck of the ship with the view of assisting the aviator to get off by having the ship steam head to the wind. Mr. Ely, however, did not need this help and succeeded in making the flight while the vessel was at anchor, thereby increasing the value of the experiment.

In the following year, January 18, 1911, Mr. Ely made a successful landing with an airplane on the deck of the U. S. S. *Pennsylvania*. The next day he flew the same plane from the deck on which he had landed.

The following month, Mr. Glenn Curtiss flew from the water at his San Diego base and landed alongside the U. S. S. *Pennsylvania*, and was hoisted on board that ship. He was subsequently hoisted out again and flew back to his camp. This performance, together with the previous performance of Mr. Ely, gave a very decided impetus to naval aviation in England, France, Italy, Russia, Germany, and Japan.

In the summer of 1911 Mr. Curtiss made a flight in a flying boat at Hammondsport, N. Y. A practical flying boat was not constructed, however, until 1917, and the interval between 1911 and 1917 was given over almost entirely to the field of experimentation.

In 1911 our Navy organized its first naval aviation section. It consisted of a few naval officers who volunteered and were specially detailed for the purpose of observation, training, and experimentation in aviation. Lieut. T. G. Ellyson was the first naval aviator to qualify. Lieut. John Rodgers, United States Navy, the second. Their preliminary flight training was obtained at the flying schools conducted by Curtiss and the Wright Bros. A short time later, January 20, 1911, Lieut. J. H. Towers and Ensign V. D. Herbster, United States Navy,

were similarly assigned. In 1912, Naval Constructor H. C. Richardson, United States Navy; Lieut. B. L. Smith, United States Marine Corps; Lieut. (Junior Grade) G. DeC. Chevalier; Lieut. (Junior Grade) P. N. L. Bellinger; and Lieut. (Junior Grade) W. D. Billingsley began training. In 1913, Lieut. (Junior Grade) J. M. Murray, Lieut. Commander H. C. Mustin, Lieut. (Junior Grade) M. L. Stolz, Lieut. (Junior Grade) R. C. Saufley, Civil Engineer J. B. Rockwell, Lieut. K. Whiting, and Lieut. C. K. Bronson were added to the ranks of the naval aviators. These men were the pioneers in naval aviation.

EARLY ORGANIZATION.

Until 1915 the general construction of airplanes and hydroaeroplanes was carried on under the cognizance of the Bureau of Construction and Repair and the training of aviators and aviation mechanics under the Bureau of Navigation. No specific appropriation for aviation was requested, except under the Bureau of Navigation to cover aerial training and navigating instruments. All bureaus did their share in providing specific parts of new outfits under their appropriations for equipment, just as was done with boats.

March 13, 1911, Capt. W. I. Chambers received orders to the Bureau of Navigation directing him to devote his time exclusively to aviation. It is probable that up to the beginning of 1913 we had made as much progress in naval aviation as any other nation.

First aviation camps.—During the summer of 1911 a capacious wooden hangar was built at Greenbury Point on Government land near Annapolis, but this location proved unsuitable owing to the danger from stray bullets from the Naval Academy target range.

During the winter of 1911-12 an aviation camp was established at San Diego on land adjoining the Curtiss camp. Here considerable valuable experimental work was done in testing the comparative efficiencies of different types of hydroaeroplanes.

In the summer of 1912 the camp was moved to Annapolis, where tent hangars were set up fronting the Severn River. Three planes, with a makeshift machine shop, made up the material, and an instructor, several students, and mechanics comprised the personnel.

In the winter of 1912-13 the Annapolis Camp was transported by the Navy collier to Guantanamo. The Cuban camp was commanded by Lieut. Towers, subject to orders from the commander in chief of the fleet, to whom special instructions had been given. The marines had a separate camp at Culebra, but they later joined forces with the aviators at Guantanamo. Many interesting practical tests were made in cooperation with the ships and many of the fleet officers became familiar with seaplanes. At this time several notable flights were made along the coast, and the usefulness of aircraft as scouts in detecting the approach of a distant fleet and in detecting mine fields and submerged submarines was amply and practically demonstrated.

In the summer of 1913 the aviation camp was returned to Annapolis, where a regular system of weekly practice flights to and from certain points in Chesapeake Bay was inaugurated by Lieut. Towers. At this time 14 officers had qualified as naval aviators. Much of the summer of 1913 was devoted to the testing of a new flying boat at Hammondsport.

In October, 1913, a board of aeronautics was appointed by the Secretary of the Navy to report on the needs of a suitable organization and complete establishment. Capt. W. I. Chambers was made chairman of the board, which met on November 18, and a policy of development was outlined. One of the recommendations of the board was the establishment of an aviation station at Pensacola. This recommendation was approved, and in January, 1914, the first naval air station in the United States was established at Pensacola.

In the meantime the Annapolis camp was broken up and equipment and personnel transferred to the U. S. S. *Mississippi*, which was stationed off Pensacola. Lieut. Commander H. C. Mustin, the commanding officer of the *Mississippi*, became the first commanding officer of the Pensacola station. In the summer of 1914, the Government having sold the U. S. S. *Mississippi*, the U. S. S. *North Carolina* became the naval aviation ship.

Notable records.—Our first Curtiss hydroaeroplane was capable of developing 100 horsepower. Later the following seaplanes were used by the naval aviators: Two Renault 70 horsepower; two 4-cylinder Wright 40 horsepower; two 6-cylinder Wright 40 horsepower; and one Sturtevant 40 horsepower. These aircraft made up the entire equipment with which naval aviation was carried

on during its formative period. These planes could not remain in the air longer than two hours, the average endurance being about 1 hour and 45 minutes. They were two-seater open-faced pusher type seaplanes of very frail construction. The pilot and passenger were seated on a sort of open framework immediately forward of the motor. The tail of the plane was made of light bamboo poles and a crash, however slight, was always accompanied by serious casualties, due, not only to the light construction, but also to the fact that the motor radiators were placed immediately back of the pilot's head.

In 1913 Billingsley was killed in a crash, and in 1914 and 1915 Murray and Stolz made their sacrifice to the new science. In 1916 Rockwell and Saufley were killed within three weeks of one another, and in the same year Bronson was killed by the premature explosion of a bomb.

A review of the early experimentation with hydroaeroplanes would not be complete without mention of the use of catapults and the single cable for launching purposes. Lieut. Ellyson was successfully catapulted into the air from a float at Annapolis, and then Lieut. Commander Mustin from a ship under way, and later Lieut. Bellinger at Pensacola from a barge. Lieut. Ellyson about the same time made his celebrated flight from a single improvised wire cable running from the shore to the water.

The first notable flight by a naval aviator was made in 1912 by Lieut. John Rogers, who flew from Annapolis to Washington, and then to College Park, Md., from which place he later flew to Annapolis via Baltimore and Havre de Grace. After the arrival of the new Curtiss machines, Lieut. T. G. Ellyson and J. H. Towers made a memorable record flight over the waters of Chesapeake Bay, from Annapolis to Fortress Monroe, Va., and return.

Many records were made by our intrepid aviators in these early years. In 1912 Lieut. Towers made a record flight of 6 hours and 10 minutes in a Curtiss seaplane. In the same year Ellyson ascended to an altitude of 3,200 feet.

In June, 1913, Bellinger made a world's record for altitude by ascending to 6,200 feet in 45 minutes in a Curtiss seaplane. The following year Lieut. Bellinger made another record of 10,000 feet using a Burgess type seaplane. In the summer of 1913, Lieut. B. L. Smith, United States Marine Corps, made a successful flight in a combined water and air craft, by starting from the water and landing on the land and then returning to the water. In 1915 Lieut. Saufley ascended to an altitude of 14,500 feet in a Curtiss seaplane and later on made an endurance record in the same type of seaplane of 8 hours and 20 minutes. This flight terminated in his death.

Later organization.—In February, 1914, Capt. Chambers was relieved by Capt. Mark L. Bristol. The office was conducted by Capt. Bristol, with the assistance of officers detailed from time to time, until the 1st of March, 1916, when the captain was ordered to sea. The office was then conducted by Rear Admiral J. S. McKean, aid for material in the office of the Chief of Naval Operations. Lieut. C. K. Bronson was detailed as the admiral's assistant for aviation, and continued in this capacity until November, 1916, at which time his death occurred, from accident. Lieut. Towers then took his desk and continued in the office of the Chief of Naval Operations in this capacity throughout the war.

A month after war was declared Commander Noble E. Irwin was ordered to aviation duty under material in the office of Naval Operations, and in July of the same year aviation work was segregated and moved to the Navy Annex. This condition continued until March 7, 1918, when the General Order No. 375 was signed by the Secretary of the Navy, creating the office of the Director of Naval Aviation.

The Director of Aviation was made responsible to the Chief of Naval Operations.

In May of 1919 Capt. T. T. Craven, United States Navy, relieved Capt. Irwin as Director of Naval Aviation.

Early types.—The first operations at Pensacola were carried on in the E type of hydro-aeroplane, with the pusher propeller, and a few F-type flying boats, but in 1916 these were superseded by the N-type tractor hydroplanes, and from this date on the percentage of fatalities was greatly lessened. In the tractor type of seaplane the engine is forward of the pilot and in case of an accident it takes the force of the crash. Most of the seaplanes used up to 1917 were converted land planes, so that to a certain degree the early development of naval aviation was largely connected with the progress of military aeronautics, but from that time on the Army and Navy types became widely divergent.

Vera Cruz.—When the fleet was ordered to Mexican waters in April, 1914, in connection with the occupation of Vera Cruz, two aeroplane sections of two aeroplanes each, completely manned and with full outfits, were sent on board the *Mississippi* and *Birmingham* to Vera Cruz and Tampico. Those at Vera Cruz were used continually, and although the Navy's aeroplanes are not fitted for land work, for 43 days they did a good deal of scouting over the trenches protecting Vera Cruz. To every call made upon them our young aeronauts made ready and cheerful response. Their scout work in the sky was of value in the combined operations of the Army and Navy.

Chance in concept of seaplane usefulness.—The mention of the *Pennsylvania*, from and to which vessel flights were conducted on the west coast in 1911, the *Birmingham*, the *Mississippi*, and the *North Carolina* has a special significance. It is perhaps not generally understood that up to as late as 1917 all plans revolving about the central idea of sea flights as distinguished from flights over land inevitably included the use of warships. It was the accepted notion that the usefulness of aeroplane flights over the water, so far as they related to naval possibilities, was limited to the extent that they could cooperate with and maintain contact with the units of the fleet. During the active operations by seaplanes in the theater of war for the suppression of the submarine this original theory was largely modified, but to-day we see a reversion to this idea. Motor improvements, amplification of effective operating radius due to increased fuel supply, and the construction of hulls that were comparatively seaworthy had not a little to do with this variation of the initial concept of seaplane usefulness.

Conditions before the outbreak of the war.—As already mentioned, the European war was responsible for the intensive development of military aeronautics. Previous to the war progress was slow everywhere. During the conflict the active participants jealously guarded many of their secrets, and the United States upon entering the conflict found itself forced to engage at once in an activity that had assumed huge proportions. Foremost among the lessons taught to the United States was the necessity for a large trained personnel, and the Sixty-fourth Congress not only authorized a Naval Flying Corps but appropriated \$3,500,000 for aviation. The latter enabled the Navy Department to begin aviation activities on a much larger scale than had been possible previously.

The training of aviators was extended to officers and men of the Naval Militia and Coast Guard, and classes of men from these branches of the service were put through the school at Pensacola. Soon after our entrance into the war commissions from foreign Governments arrived which greatly assisted us with advice and information.

Heavier-than-air progress.—The first Navy airplane purchased in 1911 was a Curtiss triad, so called because it had controls both fore and aft. This airplane was equipped with a 75 horsepower motor and was capable of a speed of about 55 miles per hour. It had quite a number of flying hours to its credit when, following a crash, the front controls were broken off. As there were no spares on hand to make the necessary repairs, it was decided to fly this airplane with only the rear controls. The flight was successful, and it was interesting to note that shortly afterwards the use of the front controls was discontinued. This was shortly followed by a similar type of land machine which, due to slight refinements in design, developed with the same horsepower motor a speed of about 60 miles per hour. These two airplanes were followed by a Curtiss hydroplane of the pusher type equipped with a Curtiss OX motor of 80 horsepower. This plane was of the pontoon type, with controls both fore and aft and attained a speed of about 57 miles per hour. The only other airplane purchased during this first year was manufactured by the Wright Bros. and was of a pusher type. It was equipped with a 60-horsepower motor and attained a speed of about 55 miles per hour. The radical departure from general practice in this airplane was that one motor, by chain-drive system, operated two propellers which were arranged to revolve in opposite directions.

The year 1912 in particular brought out nothing but refinements of these types, although among the four planes purchased during this year was included a Wright hydro pusher. This, again, was of the pontoon type, equipped with a 60-horsepower motor, and developed a speed of about 50 miles per hour. It was built on the general type of the Curtiss hydropusher, although it kept the distinctive Wright features.

During the year 1913 five more airplanes were purchased, and it is noteworthy that this year brought out two radically different types. One of these

was the Burgess-Dunne seaplane and the other the Curtiss flying boat. The Burgess-Dunne seaplane was of the pontoon type, equipped with a Curtiss OX 80-horsepower motor, and developed a speed of about 60 miles per hour. The machine had no tail surfaces, the wings being arranged in a V form. This machine was inherently very stable, and because of this point was not sensitive in control. It would automatically follow each bump, and gave a rather unusual appearance by its action in the air. It was equipped with wing-tip floats, which helped to steady it while it was taxiing on the water. The Curtiss flying boat was of a radically different construction from other naval aircraft, inasmuch as the pontoon idea was not used. In this case the wings were attached to a hull and by means of the hydroplane construction the boat was enabled to go on the step and then take off similar to other hydroairplanes. It was, again, of the usual pusher type, equipped with the 80-horsepower motor and developed a speed of about 62 miles per hour. This year also brought out the Burgess flying boat, which was in a number of ways similar to the Curtiss flying boat, but with seats placed in tandem. It was equipped with a 80-horsepower Renault motor and developed a speed of about 60 miles per hour. Besides the aircraft enumerated above, there were also purchased during the year two Curtiss seaplanes and one Curtiss airplane equipped with OX 80-horsepower motor, which was a combined land and water type of craft, developing about 62 miles per hour, and termed the O. W. L. boat.

During the year 1914 there was purchased three more Curtiss flying boats and one Burgess flying boat, practically the same as those purchased during 1913 with a few added refinements.

During the year 1915 another Burgess-Dunne was bought and five Curtiss hydro airplanes. These were equipped with OXX 85-horsepower motors and were capable of a speed of about 62 miles per hour.

The year 1916 brought out a number of machines from various manufacturers, the principal feature being that some of the seaplanes were now of a tractor type. Among others might be mentioned the Thomas hydrotractors, the Martin hydrotractors, the Burgess hydrotractors, and the Sturtevant hydrotractors. Also it is important to note that the Curtiss Co. not only produced the KN twin tractor with OXX 85 horsepower motors, but also the familiar N-9 training seaplane equipped with OXX 85-horsepower motor. During this year the purchase of aircraft considerably increased, no less than 60 machines being obtained. It is worthy to note that during this year the horsepower was increased on practically all of the aircraft purchased. The usual experimental development during the past few years is clearly shown in the aircraft purchased during 1916, as during that year they began to assume their present-day form.

During 1917, to April 6, a seaplane was purchased from Paul Schmidt, Paris, and the Curtiss R-type seaplane was brought out. This latter seaplane was equipped with a Curtiss V-2 motor, developing about 200 horsepower, and was of the twin pontoon type construction. It was also during this year that the first H-12 flying boat was brought out. This was equipped with two V-2 Curtiss motors, which developed about 200 horsepower. The aircraft brought out during these last two years showed an advance of considerably more horsepower, as the speed was increased to 70 miles per hour and upwards.

This brings us up to the time of the beginning of hostilities and shows that on April 6, 1917, the Navy Department had purchased approximately 100 aircraft of different types.

The few aircraft in use by the Navy at the outbreak of the war did not more than meet the most rudimentary requirements of flight operations. It became necessary immediately to develop aircraft useful for other purposes than mere flying. Offensive work against submarines required machines of long air endurance and of large carrying capacity. In the early summer of 1918, the types of seaplanes considered necessary came into production in adequate quantities, and were made available at the different stations at home and abroad. A report of the organization developed and the methods put into effect for the production of naval aircraft would in itself require a volume, and it is not possible to go into great detail with regard to this matter at this time. In the United States it became necessary to establish a new industry over night, and with it to produce machines with which the builders were entirely unfamiliar. This work was conducted successfully in the face of stupendous difficulty.

The following memorandum from the Bureau of Construction and Repair outlines the steps taken for producing seaplanes during the war:

PRODUCTION OF SEAPLANES.

The bureau upon the entry of the United States into the war was not without experience in seaplane design and construction, and the theoretical and technical knowledge necessary to undertake the war program was to a large extent already available. Prior to 1916 no appropriations were made specifically for aircraft purposes, but funds were allotted by the department for aeronautical experiments as follows: 1912, \$25,000; 1913, \$10,000; 1914, \$10,000; 1915, \$10,000; and in 1916 the first appropriation was made for naval aeronautics in the sum of \$1,000,000. These funds had been spent in the construction of about 95 seaplanes for training purposes, and the establishment of the air station at Pensacola for the training of aviators and the testing of experimental seaplanes.

The first production order for seaplanes in the United States was placed in the fall of 1916 with the Curtiss Co. for 30 type N-9 training machines. Previously no satisfactory type had been developed and the preparations for war practically date from this order. By the spring of 1917, large classes of aviators were in training on these machines.

With the declaration of war, the first requirement was for more training machines and the Curtiss Co. was given an order for 64 more N-9 and 76 of a larger type designated as R-6. These orders filled the available capacity of the Curtiss Co. which at that time had large orders for training airplanes from the Army and the British Government. To permit expansion of the training program, additional orders were placed with each of the six other aircraft manufacturers for sample training planes of their design. Several satisfactory types were submitted for test and orders were placed in the summer of 1917, as follows: Burgess Co., of Marblehead, 12 planes of Burgess design, plus 30 Curtiss N-9's; Boeing Co., of Seattle, 50 planes of Boeing design; Aeromarine Co., of Keyport, N. J., 200 planes of Willard design; Curtiss Co., of Buffalo, 15 training boats type F and 122 R-6's, both of Curtiss design. These orders were delivered at a satisfactory rate and the training of aviators was at no time held back for lack of proceed with confidence to produce these training seaplanes is due to the experience gained in 1916. A satisfactory type, N-9, had been developed by the Curtiss Co. in cooperation with the bureau, and it was not difficult to arrange for other firms to produce similar planes equal or superior to it.

The development of the N-9 was a fundamental without which the entire naval air effort would have broken down. Its conception was simple in the extreme. In the summer of 1916 there had been a succession of fatal accidents with the pusher seaplanes then in use, and flying at Pensacola had come to a standstill. The chief constructor sent for Mr. G. H. Curtiss and proposed to him that he take the existing Curtiss JN Army plane, place a pontoon under it, add a specified amount to the wing area to carry the extra weight, and add specified amounts to the tail areas to give stability. The result was the N-9, which proved the remedy for the accidents at the flying school.

With the training program well under way, it remained to determine what part naval aircraft would play in the war and to provide the necessary material. At first it was not known whether the Navy would send aircraft abroad at all, but it was decided by September, 1917, that the Navy should operate 15 seaplane stations on the coasts of France and Ireland from which seaplanes would patrol the submarine-infested coastal waters through which American troops and supply ships were to pass.

Attempts were made to obtain information from abroad of any successful types in order that their manufacture might be undertaken, and, in July, 1917, a board of officers was sent to England, France, and Italy to obtain this information at first hand. This board on its return September 1, 1917, reported that there was no wholly satisfactory foreign seaplane suitable for coastal patrol; that foreign development had concentrated on the production of land machines, and that American types equipped with the new Liberty engine would be superior to any abroad. The joint Army and Navy technical board, acting upon this information, and with the knowledge that 15 coastal air stations abroad would be operated by the United States Navy, prepared a building program, which was approved by the Secretary in October, 1917.

This initial program provided for the first equipment of stations abroad, advanced training in this country, and replacements for the period of a year, and included 1,185 single Liberty engine flying boats, *HS-1*; and 235 twin Liberty engine flying boats, *H-16*; two types only, and both American designs (Curtiss). Among reasons for this policy were: (a) The engine had been demonstrated to be satisfactory; (b) these flying boats had been demonstrated

to be superior to any others; (c) provision of but two types with a single type of engine simplified production and maintenance; (d) two types of flying boats were necessary as the large boats could not be constructed in sufficient quantities, involved shipping difficulties, and drew too much water for use on certain of the French stations.

Again, as in the case of the training planes, the bureau was well prepared in the technical sense and could proceed with confidence to quantity production without much time lost in experiment. The problem was, of course, simplified by the requirement of but two types.

The *HS-1* was developed from a Curtiss design known as *H-14*, which was brought out in the summer of 1917 with twin 100-horsepower engines. It was too heavy for the power and was a failure. The Curtiss Co. then replaced the twin 100-horsepower engines by a single 200-horsepower engine. The boat then performed much better, and, while still underpowered, gave considerable promise. The bureau was in close touch with this development, and when the Liberty engine seemed to be successfully tested on the bench, arranged to have one of the experimental engines assigned to try in an *HS* boat. A contract was made with Mr. Curtiss to install this engine, and on October 21, 1917, successful trials were held over Lake Erie at Buffalo. There had been a friendly race with the Army to see which service would first make use of this remarkable new engine.

The boat was pronounced successful by a naval trial board and arrangements made for its production by the Curtiss Co. to the limit of its capacity. In order to provide additional units, the department purchased for \$50,000 the unlimited production rights from the Curtiss Co. and placed orders with five other concerns to build *HS* boats to Curtiss plans.

The first model, known by the type symbol *HS-1*, was a typical Curtiss type of flying boat having a length of 38 feet and a wing span of 62 feet. The gross weight in the air of 5,900 pounds included a crew of two men, one machine gun, and two 180-pound bombs. The maximum speed of 87 miles could be maintained for four hours. After production had got well under way, information was obtained that the 180-pound bomb was not really effective against submarines, and heavier bombs as well as a radio outfit would be needed. Obviously the extra weight would be carried only if the fuel supply were cut down, which was not advisable. The solution was found in an increase in the wing area of the boat by which a greater load could be carried in the air. The bureau designed a 6-foot wing and a larger rudder which could be supplied to the *HS-1* boats converting them to model *HS-2* without further change. This increased the span to 74 feet and permitted a total weight of 6,500 pounds. The radio, two 230-pound bombs, machine gun, and two pilots were carried with ease and, furthermore, the endurance was increased to 4.4 hours at full speed and 6.5 hours at cruising speed. The full speed was only reduced 2 miles per hour by this change in design, which at once gave us a vastly improved machine without interference with production. It is believed this is a unique example of a fundamental design change which did not cause nearly as much trouble as benefit.

The production of *HS-2* boats is summarized in the following table:

Companies.	Number ordered.	Shipped abroad.	Delivered.	Canceled after armistice.
Curtiss Aeroplane & Motor Corporation, Buffalo, N. Y.	674	213	674	.....
L. W. F. Engineering Co., College Point, N. Y.	300	10	250	50
Standard Aircraft Co., Elizabeth, N. J.	150	6	80	70
Gallaudet Aircraft Corporation, East Greenwich, R. I.	60	.....	60	.....
Boeing Airplane Co., Seattle, Wash.	50	.....	25	25
Loughhead Co., Los Angeles, Calif.	2	.....	2	.....
Total	1,236	229	1,091	145

With these concerns the following yacht-building firms worked as subcontractors for the boat hulls: College Point Boat Co., College Point, N. Y.; George Lawley & Sons, Neponset, Mass.; Unit Construction Co., Philadelphia, Pa.; Mathis Yacht Building Co., Camden, N. J.; L. E. Fry & Co., Clayton, N. Y.; Palmer-Simpson Co., Saranac Lake, N. Y.; Mathews Boat Co., Milwaukee, Wis.; Fay & Bowen Engine Co., Geneva, N. Y.; Niagara Boat Co., Tonawanda, N. Y.

The other type adopted for production by the Joint Army and Navy Technical Board was the H-16, to be fitted with the twin Liberty engines of 400 horsepower each. This type had been developed during 1915 and 1916 by the Curtiss Co. and the British Admiralty. The original model had been the Curtiss *America* of 1914, built for a proposed trans-Atlantic attempt. The *America* was not successful because no high-power engines were available, but the British Admiralty ordered a number of them and fitted them in England with two French Adzani engines of about 100 horsepower each, known as "Small America's," and they were used to patrol submarine areas. Curtiss then designed the H-12, a larger machine on the same lines, which was fitted in England by the Admiralty with twin Rolls-Royce engines. The Admiralty redesigned the hull of the H-12 to provide greater strength and introduced for the first time the steep V bottom with double steps. The Curtiss Co. was given, in 1917, a larger order for the British redesigned boat, known in England as F-3 or "Large America" and in the United States as H-16. This machine was already in production at the Buffalo works of the Curtiss Co., but the design was arranged to mount Rolls-Royce engines. It became necessary to redesign extensively to provide for Liberty engines. As engines were installed in England, none of the H-16's had ever been completed or flown in the United States.

The redesign of the H-16 to take Liberty engine necessarily involved extensive changes, but there was no time to work out a trial installation. Production was started at once, and by a combination of good luck and good management, no serious difficulties developed. It should be remembered that the engine is the heart of a flying machine, and a complete change of power plant involves in addition to extensive structured revisions alterations in balance and stability.

The H-16 is a biplane flying boat 46 feet long with wings of 95 feet span. The twin Liberty engines develop 360 horsepower each, if low compression, or 400 horsepower if high compression. The weight empty is 7,400 pounds and loaded 10,900 pounds. The useful load includes four men, radio, two 230-pound depth bombs, and four machine guns. The maximum speed is 95 miles. At this speed the endurance is four hours, but patrols at cruising speed of nine hours were made in the war zone.

During 1917 the British Admiralty redesigned the H-16 again to produce a boat able to carry more depth bombs and to have greater endurance. A sample machine was successfully developed in the spring of 1918 and plans sent to the United States. In this case, the change to get greater load capacity was not at all like the HS-1 and HS-2 change noted above, but an entirely new design down to the last bolt. The new type F-5 had an allowable full load of 13,000 pounds, and could carry four depth bombs against two for the H-16, besides having a cruising endurance of 11 hours against 9 for the H-16. The maximum speed was about 7 miles less.

The advantages of the new type were obvious, and during 1918 as the H-16 contracts were completed, orders for type F-5 were placed with the same concerns. It should be noted that the British plans for the F-5 were taken from a sample machine and were in no way production plans. Also the details of construction were impossible for quantity manufacture, and the design provided for Rolls-Royce engines. The machine was completely redesigned at the Naval Aircraft Factory to adapt it for quantity production on the assembly system, to use American standard parts and practices, and to install twin Liberty engines.

The production of H-12's, H-16's and F-5's is summarized in the following table:

Companies.	Number ordered.	De-livered.	Shipped abroad.	Canceled after armistice.
Curtiss Aeroplane & Motor Corporation, Buffalo, N. Y.	19 H-12	19		
Do.	74 H-16	74	62	
Do.	410 F- 5	60		350
Curtiss Engine Corporation, Garden City, N. Y.	50 H-16	50	18	
Naval Aircraft Factory, Philadelphia.	150 H-16	150		
Do.	680 F- 5	137		543
Canadian Aeroplanes (Ltd.), Toronto, Canada.	50 F- 5	30	1	20
Total.	1,433	520	159	913

In December, 1917, the naval aviation forces operating abroad in conjunction with the British Admiralty had found the twin-engine flying boat (the *Large America*, of the Royal Naval Air Service) a very superior fighting craft, and, following recommendations by Admiral Sims, a greatly increased program, calling for a total of 864 of the twin-engine flying boats, was authorized on December 26, 1917, for delivery by the spring of 1919. That added 629 boats to the program of 239 of October, 1917. The firms then manufacturing naval aircraft could not handle any larger orders. In those plants there were on order from the department 19 H-12's, which were suitable for training but not for patrol, and 134 H-16's for delivery in the first six months of 1918. The Curtiss plant at Buffalo could deliver 150 and the Naval Aircraft Factory 100 units. That left 480 boats to be secured from some new source, to be organized from the ground up. How was the situation to be met? Allowing three months for building a new plant and one month for equipping and organizing, work might start in four months, and deliveries begin before six months had elapsed. After the labor and material were assembled the capacity of the plant must be about 90 boats per month. Such a project would have required a very large plant, doing a gross business of approximately \$36,000,000 per annum, exclusive of engines, and its creation appeared impossible in the time available. Accordingly, after careful study a plan was worked out for coordinating existing yacht yards as well as metal and wood-working shops in manufacturing hulls, panels, and parts for delivery to a central organization in the nature of a great storehouse or progressive assembly plant. It was not practicable because of the financial aspect to get a private manufacturer to provide this large assembly plant, and since the plant must be built by the Government, it was obvious that it should be built as an addition to the existing Naval Aircraft factory. The extension was approved by the Secretary on February 9, 1918, and construction began at once.

Production in appreciable quantities was first reached in April, 1918; HS-1's were being delivered at the rate of 6 per week and H-16's at the rate of 3 per week, and these rates were constantly increasing, when in June the program was again augmented for delivery by the summer of 1919 by 700 F-5's, 300 HS-2's, 300 F boats, and 200 N-9's. In September this was increased 100 F boats.

By the summer of 1918 aircraft production was well under way and had reached its height about September 1, when deliveries were being made on twin Liberty engine flying boats at the rate of 13 per week from the Naval Aircraft Factory, Philadelphia, Pa.; the Curtiss Aeroplane & Motor Corporation, Buffalo, N. Y.; and Curtiss Engineering Corporation, Garden City, N. Y., and the Canadian Aeroplanes (Ltd.), Toronto, Canada. Single Liberty engine flying boats were being delivered at the rate of 38 per week, from the Curtiss Aeroplane & Motor Corporation, Buffalo; the L. W. F. Engineering Co. (Inc.), College Point, N. Y.; the Standard Aircraft Corporation, Elizabeth, N. J., and the Gallaudet Aircraft Corporation, East Greenwich, R. I. School or training machines were being delivered at the rate of 32 per week, from the Burges Co., Marblehead, Mass.; the Aeromarine Plane & Motor Corporation, Keyport, N. J.; and the Curtiss Engineering Corporation, Garden City, N. Y.

Hulls for the Naval Aircraft Factory's production, and also for a number of the above-mentioned private concerns, were being constructed by the Herreshoff Manufacturing Co., Bristol, R. I.; Robert Jacobs, City Island, N. Y.; George Lawley & Sons Corporation, Neponset, Mass.; L. E. Frye Co., Clayton, N. Y.; Mathews Boat Co., Port Clinton, N. Y.; Unit Construction Co., Philadelphia, Pa.; Mathias Yacht Building Co., Camden, N. J.; Charles L. Seabury Co.; and the Gas Engine & Power Co., Morris Heights, N. Y.; Niagara Boat Co., Tonawanda, N. Y.; Albany Boat Co., Albany, N. Y.; H. B. Nevins, City Island, N. Y.; Murray & Tregurtha Co., Boston, Mass.; Palmer Simpson Co., Sarnac Lake, N. Y.; College Point Co., New York; and a large number of wings, tail surfaces, and lateral fittings were being manufactured by the Curtiss Aeroplane & Motors (Ltd.), Toronto; the Victor Talking Machine Co., Camden, N. J.; and Lock & Co., New York City.

In the fall of 1918, however, it was found that aircraft were being installed at a rate in excess of that required both for training and for service abroad, and the program was reduced early in November by 550 F-5s, 248 HS-2s, and 300 school or training machines. As soon as the armistice was signed, the rate of production was slowed down as rapidly as possible, and cancellation on

outstanding orders was effected, which further reduced the program by 145 HS-2s, 512 F-5s, and 100 school machines. In completing the few remaining units, the manufacturers were able to liquidate their large labor force, and the industry was gradually reduced to a peace basis.

The construction of machines under this program was allotted to manufacturers already experienced in the art of airplane construction, as it did not appear wise to place orders with inexperienced concerns or to promise them orders which might drain raw materials already scarce and skilled labor from the established builders who were being pressed to expedite delivery. Many offers of facilities from manufacturers who had not previously built aircraft and also from inexperienced aircraft concerns were received by the bureau, and in every case hearing was given and careful investigation made. It was necessary in all production matters to cooperate closely with the Army by direct conference, and all especially important matters were submitted to the Aircraft Board for approval and coordination. This arrangement worked well and eliminated competition and duplicate efforts.

Before placing the larger contracts, prices and terms were submitted to the Aircraft Board for approval, although final approval was, of course, in the hands of the Secretary of the Navy.

At first school planes were purchased on a flat-price basis, but when the large production contracts for the large service planes were wanted, it was impossible to fix a fair price, due to a complete lack of experience in building these types in the quantity contemplated. Furthermore, the material markets were becoming demoralized, and there was no means of predicting future developments. The straight "cost-plus" contract was objectionable on many grounds, and a form of contract was evolved with the assistance of the Aircraft Board which provided for paying the contractor actual cost, plus a fixed profit of 15 per cent on an agreed estimate or "bogey" price, plus one-quarter of any difference or saving the contractor might make under such "bogey." This form of contract was in the main very satisfactory, and was used until late in 1918, when the mandatory "Navy order" was put in effect. The latter was less satisfactory, as it did not contain the incentive to bear "bogey" and involved an equally elaborate accounting system.

The Aircraft Board assigned the following aircraft manufacturers to accept orders from the Navy only: Aeromarine Plane & Motor Co., Keyport, N. J.; The Burgess Co., Marblehead, Mass.; Victor Talking Machine Co., Camden, N. J.; Boeing Airplane Co., Seattle, Wash.; Curtiss Engineering Corporation, Garden City, Long Island, N. Y.; Gallaudet Aircraft Corporation, East Greenwich, R. I.; Canadian Aeroplanes (Ltd.), Toronto, Canada; L. W. F. Engineering Corporation, College Point, Long Island, N. Y.; Curtiss Aeroplane Co., Toronto, Canada; and assigned a fraction of the capacity of Curtiss Aeroplane & Motor Co., Buffalo, N. Y.; Standard Aircraft Corporation, Elizabeth, N. J. The other plants in the country were assigned to the Army.

The producing capacity so assigned was adequate to meet the Navy's requirements and by September, 1918, production was in excess of requirements; all air stations at home and abroad had a full complement of seaplanes and shipments abroad were stopped temporarily. The armistice intervened before shipments had to be resumed.

In December, 1917, when manufacturers started building naval aircraft on a production basis, it was seen that it would be impossible to secure in the open market various materials, such as spruce, fabric, tape, dope, veneer, and steel tubing; and it became clear that the supply of them must be controlled by the Government. Of such materials, the most difficult to obtain appeared to be Sitka spruce on the Pacific coast, and the Navy was unable to secure sufficient to meet its needs. A considerable portion of the New England spruce output had been found suitable for airplane construction before the war; had, in fact, been purchased by Germany for that purpose; but at this time was apparently being overlooked. As the emergency for spruce became acute, it was deemed advisable to determine if suitable material could not be secured from the New England woods, and an officer from the Bureau of Construction and Repair was sent to investigate.

Early in January, 1918, he reported that approximately 1,000,000 feet per month of spruce suitable for aircraft construction could be secured from New England sources, at prices ranging from \$90 per 1,000 feet to \$125 for various lengths, and an agreement was reached with the Army whereby the Navy was to have the exclusive right to develop that territory.

The Navy Department then established an office in Boston, Mass., so as to keep in close touch with the New England spruce-producing mills, to secure information, to arrange contracts, and in other ways to safeguard an adequate supply of airplane spruce, the policy settled upon being a decision to use the New England lumber as a reserve stock in the event that the War Department should be unable to furnish Navy contractors with the required amount of Sitka spruce.

From February to May, 1918, about 1,000,000 feet of New England spruce was produced each month, but from June to October that quantity was reduced as the need was not so urgent. From January to May, 1918, deliveries of Pacific coast spruce were not coming through in a satisfactory manner, and an effort was made to use the New England wood. However, owing to the fact that much of it contained small pin knots and was in shorter lengths than the Pacific coast spruce, contractors were reluctant to use it, and in fact its use was difficult under the interpretation of the specifications existing at that time. Accordingly during May and June, 1918, detailed specifications were issued so as to allow the use of the type of spruce coming from New England and in August, 1918, manufacturers of school seaplanes were required to build wooden parts of laminated and spliced construction, and hence a larger quantity of New England spruce was used.

By May, 1918, about 70 New England mills were turning out spruce suitable for airplanes, and it became apparent that the production was greater than the needs of the Navy. Accordingly efforts were made to dispose of the excess. Various allied Governments were approached on the subject, and the Navy was successful in arranging a contract for 1,000,000 feet with the British war mission. When the first shipments reached England, the British war mission to this country was notified that the material was satisfactory and was authorized to procure a further amount. Accordingly, shipments were then made to the British at the rate of approximately 500,000 feet per month under that contract and under a subsequent one calling for 3,000,000 feet.

Early in June, 1918, the War Department began to run short of strut material, and the Navy was asked to furnish various quantities to manufacturers of airplanes for the Army. In compliance with that request, New England spruce was supplied to the Sturtevant Aircraft Corporation, the Metz Co., the Wilson Body Co., the Packard Motor Co., and the Engle Aircraft Co., all contractors to the Army, the larger part of this material being strut stock suitable for the manufacture of De Havilland and JN-4 struts. The Army contractors first accepted it hesitatingly, as many were dubious about the use of material containing pin knots, but as soon as it was found that it worked as well, if not better, than Sitka spruce, the Navy was in receipt of insistent orders from those same manufacturers for a further supply, and until the signing of the armistice, the Navy supplied them approximately 1,000,000 feet.

Soon after the shipment of spruce to the British began to go forward, it was determined that it would be necessary to dry spruce down to a point that would permit its being shipped abroad in confined quarters. In order that the necessary drying could be accomplished under the control of a Navy inspector, it was found advisable to secure a yard where that material and material for the Army and the Navy contractors, could be selected and sorted out. A yard at the foot of Southampton Street, Boston, Mass., was selected and secured at a nominal rental—\$4,000 per year—and stocks of New England spruce were built up, nearly 6,000,000 feet of lumber being handled there.

When orders were placed for Sitka spruce, prices ranged as high as \$350 per thousand board measure feet. In October, 1918, however, "A" grade spruce was charged at \$642 per thousand, and the Navy was informed that it was the intention of the War Department to amortize in a period of 10 months its entire Pacific Coast lumbering establishment, cut-up plant, railroads, etc., and that it was necessary to charge those prices to absorb that overhead.

While many of the mills on the Pacific coast were cutting spruce for the Army's cut-up plant, there were few small mills not considered by the War Department, which had a small output of Sitka spruce. This stock was sold to various New England mills holding Navy contracts, and Sitka spruce was shipped in from the West over the Canadian Pacific Railroad, sorted in New England, selected by Navy inspectors, and purchased at the same prices paid for New England spruce, viz, \$125, \$110, \$100 per thousand feet for "A."

"B," and "C" grades. This material was found to be just as satisfactory as that stock supplied by the Army at \$642, \$350, and \$160 per thousand for "A," "B," and "C" grades respectively.

The Army's airplane program required a tremendous quantity of airplane wing-covering fabric, and it was thought best to pool the interests of the Army and the Navy in securing it. Accordingly the control of the mills capable of producing this material was centralized in the Army, with the understanding that the Navy requirements would be taken care of. At no time during the active production period of the Navy seaplanes was there any great shortage in fabric or tape; but when a slight shortage did exist, every effort was made by the Army to keep Navy contractors supplied. The manner in which fabric was supplied was at all times very satisfactory, and shipments in many instances were made within 24 hours after receipt of the Navy's request.

As the Navy's program grew it was found that a larger quantity of acetate dope than was first anticipated would be required. At the same time there was a shortage of cellulose acetate, and it was therefore decided that the control of that necessary product should be centralized in the War Department, as has been done with tape and fabric. From January until July, 1918, however, there was no difficulty in securing sufficient acetate dope to meet the Navy's needs, due largely to the fact that the Army's airplane production had not yet reached any large volume. In July Army production increased greatly, and there was considerable difficulty for both Army and Navy in securing the required amount of acetate dope, but at no time was Navy production held up for the lack of acetate dope.

Nitrate dope was secured by the Navy from the Du Pont Co., but owing to the shortage of nitrates the War Industries Board was reluctant to release the necessary raw materials. However, by ordering merely enough to satisfy immediate needs, maintaining low stocks, and watching them carefully the bureau was able to secure sufficient nitrate dope.

From May to October, 1918, it was found that some materials were running short, especially tubing and waterproof plywood. While it was unnecessary in many instances to purchase those materials for Navy seaplane contractors, it was necessary for the Navy to help seaplane contractors to secure them, as production could be held up because of the lack of any one. Many delays in delivery of materials were brought about by improper handling of priorities, certificates by contractors, but Navy inspectors at contractors' works soon found the proper method of securing quick deliveries of materials through the departments' cooperation, and, except in rare instances, little difficulty was experienced in securing adequate stocks to maintain production at contractors' plants at all times.

During 1918 several new types of seaplanes were constructed for the Navy Department, and trials were conducted to determine their suitability for special service, either as training or as service machines. The order for each of these seaplanes was placed with the definite purpose of development of some particular need in the future program, if the war had continued.

With reference to training machines of the flying-boat type, the Curtiss Model F had proved itself the most satisfactory in use, but it was desired to develop a machine of better structural character along the same lines. Encouraged by the Navy Department the Aeromarine Plane & Motor Co. developed its Model 40-A and the Curtiss Engineering Corporation its MF (Modified F) boat, both of which were recommended for adoption by the trial board, and for which contracts were awarded.

Several service machines of particular interest, some of which presented a distinct advance in airplane design, were constructed and tried out in the summer and fall of 1918. Of these the most important are the NC-1, the Curtiss Model 18-T, or Kirkham Fighter, the HA, and Gallaudet or D-4.

The NC-1 is a large flying boat, built by the Curtiss Engineering Corporation, under the direction of certain officers of the Bureau of Construction and Repair who were responsible for the design. It is a biplane, and has a spread of 126 feet for the upper wing, and a length of 68½ feet from the bow to the end of the tail surfaces. The weight, fully loaded, is 22,000 pounds, the bare machine weighing 13,800 pounds. It is equipped with three Liberty engines, each located in a nacelle between the wings. Of particular note is the hull, which somewhat resembles a large pontoon in appearance, and which has proved especially efficient in planing at get-aways. The NC-1 is the machine which

made a flight at Rockaway, N. Y., on November 27, 1918, with 51 men aboard, thereby establishing the world's record for passengers carried.

After the armistice four NC boats were fitted with four Liberty engines for the trans-Atlantic flight.

The Curtiss model 18-T, or Kirkham Fighter, is a land machine, designed and constructed for the Navy Department by the Curtiss Engineering Corporation and intended for the protection of those bombing squadrons along the coast of France which required extremely fast machines. It is a triplane of 32-foot wing spread and has 2,800 pounds weight when loaded. It is equipped with a Curtiss (K-12) engine, a new type engine which was used for the first time in this machine. The Curtiss 18-T made 162 miles an hour, a world's record. It carried two men, two synchronized guns forward and two Lewis guns in the rear cockpit.

The HA is a single-pontoon seaplane, equipped with one Liberty engine, constructed by the Curtiss Engineering Corporation for the Navy. It has a wing spread of 36 feet. This is a two-seater machine equipped with two synchronized machine guns forward, and two Lewis guns in the rear cockpit. Its maximum speed of 125 miles per hour is a remarkable performance for a seaplane.

The Gallaudet D-4 is a two-seater seaplane with a single Liberty engine driving a propeller by means of a ring gear mounted on the fuselage aft of the wings. The machine is designed as a fighter and with two men, and 434 pounds of machine guns and bomb made 119 miles per hour. At this speed the endurance is 2.5 hours. The design is distinctly novel in that it gives excellent view and field of fire forward.

Aircraft, 1917-18.—The numbers of aircraft on hand and on order April 6, 1917, and on November 11, 1918, were as follows:

	On hand.		On order.	
	April, 1917.	November, 1918.	April, 1917.	November, 1918.
Flying boats.....	6	1,170	.....	1,921
Seaplanes.....	45	695	88	102
Land planes.....	3	262	3	10
Lighter-than-air craft:				
Free balloons.....	.....	10	.....	.....
Kite balloons.....	2	205	3	.....
Dirigibles.....	1	15	13	30

Of the above 570 aircraft of various types were sent abroad.

Lighter-than-air.—The lighter-than-air activities of the Navy began in May, 1915 when the Navy Department contracted for one dirigible with the Connecticut Aircraft Co., a concern which had secured the services of a German engineer, a German mechanic, and an Austrian pilot. This airship, the *A-1*, was finally accepted in April, 1917, but was much overweight, and after a few short flights was deflated and eventually broken up.

On August 27, 1915, two officers were ordered to Akron, Ohio, for instruction in ballooning by pilots in the employ of the Goodyear Tire & Rubber Co.

In 1916 the German submarine activity brought attention of the department to the necessity of developing lighter-than-air types. Plans and designs were developed for the first of the nonrigid single-motored airships. During this year several Goodyear spherical and kite balloons were secured, and a few officers received a certain amount of instruction in balloons at the naval air station, Pensacola, Fla.

In 1917, 16 nonrigid airships of about 80,000 cubic feet capacity, with single 100-horsepower motor, were contracted for and built by the Goodyear Tire & Rubber Co., the Goodrich Tire & Rubber Co., and the Connecticut Aircraft Co. The idea of the small-type airship for antisubmarine work was British, and an American design was prepared by the Bureau of Construction and Repair. This ship consisted of an envelope from which a Curtiss airplane fuselage was suspended. These airships were improved in detail and in several instances are still in existence. The type proved to be very successful.

In the spring of 1917 two officers were sent to Akron on inspection duty, and in June several regular officers and a class of newly enrolled reserves began

training at the Goodyear flying field at Akron, Ohio. Classes were continued there throughout the war.

In August, 1917 two officers were sent to England for instruction in airships at the Royal Naval Air Station, Cranwell. Later a class of 15 reserve officers were sent to France for instruction in French methods. The French party eventually took over the air station at Paimboeuf and operated it as an American station. The pilots trained in England operated with the British and were eventually sent to France after the establishment of other stations along the French coast.

During the year 1917 the Cacquot type of kite balloon was built in this country and placed in service. A part of the classes at Akron, Ohio, took up kite-balloon work. Lighter-than-air facilities were planned for and established at stations along the coast of the United States, at the Panama Canal, along the west coast of France, and the coast of Ireland.

Airships of French types were contracted for in France and purchased from the French Navy for use abroad, and certain types of British and French non-rigid airships were secured and brought to the United States.

Five hundred kite balloons of the Cacquot French R type were contracted for, and later on a shift was made to the British M type balloon, as it was considered more suitable for towing at sea. Winches, cable etc., were developed, and a policy was established relative to the use of kite balloons in connection with all types of surface craft capable of handling them.

During the summer of 1919 a semirigid purchased in Italy was delivered, erected, and flown at the Naval Air Station, Cape May, N. J.

Upon the request of the Army four dirigibles have been supplied that service and arrangements have been made to provide the Army with four airships of the D class.

Designs and plans had been under development since 1916 by the Bureau of Construction and Repair for a rigid airship. In 1920 the construction of such vessel was authorized in the United States. A site at Lakehurst, N. J., was selected for a station, and plans were made for the erection of the world's largest airship shed at this point.

The hangar at Lakehurst is under way and will be completed this year. The present airship shed at Cape May is being enlarged to provide for the housing of a rigid airship.

Arrangements were begun for the purchase of the rigid airship *R-28* in England. In 1920 the purchase of the *R-38* in England was authorized and arrangements were made for the instruction of personnel, both officers and men, in rigid airships. Eight officers and 18 men are now in England receiving rigid-airship instruction.

The construction of fleet airship No. 1 in the United States has been undertaken and is steadily progressing. It is hoped that the naval appropriation for 1921 will provide for one rigid airship and another large two-ship shed which may be erected on the west coast.

Radio.—The advancement of aircraft radio communication during the period of the war may be indicated by comparing the results attained before and after. The best record made before the war, transmitting from aircraft, was over a distance of 150 miles and no receiving apparatus was installed. This was experimental work and the installation weighed 100 pounds.

On the trans-Atlantic flight the radio installation of the NC seaplanes consisted of two transmitters, arranged for transmitting both in the air and on the water, a receiver and a radio compass. Two-way communication was maintained with a short station over a distance of 700 miles. The seaplanes were heard at the Bar Harbor, Me., receiving station from a distance of 1,400 miles. The entire equipment weighs 200 pounds.

During the war four different types of radio telephone transmitting apparatus were designed with the end in view of dispensing with the radio operator from the crew of the various seaplanes and allowing the pilot or observer to communicate direct without being expert in the telegraph code. A series of tests were conducted in March, 1919, demonstrating the possibilities of maintaining telephone communication direct from the desk of the commanding officer of a naval-air station and a flying boat out on patrol, wherein a two-way telephone conversation was carried on from the desk of the Secretary of the Navy, through the telephone exchange, using a standard desk telephone which controlled a radio telephone transmitted at the Washington Navy Yard and a Navy flying boat, which was flying over Chesapeake Bay, a distance of 60 nautical miles.

Radio compass.—The radio compass as installed upon seaplanes was in a fully experimental stage at the beginning of the war. During the summer of 1918 the experiments led to the installation of a "tall coil" as previously used. This overcame the necessity of varying the course of the plane in order to get a reading on the beacon station, and the success of the new type was definitely established in the trans-Atlantic flight when the seaplane NC-4, 40° off her course, was brought back to her true course by means of readings taken with the radio compass.

Instruments.—At the declaration of war the Naval Observatory furnished three classes of instruments (altimeters, clocks, and compasses) for aviation purposes, at the signing of the armistice there being issued 35 different instruments and two entirely new fields had been developed, namely, photography and aerography, and of the three classes of instruments originally furnished, all had been altered, modified, or improved and none of the types in any one of the original classes of instruments was still in use.

Other Steam Engineering activities.—The following indicates briefly some of the aviation activities of the Bureau of Steam Engineering:

Power plants.—At the beginning of the war, as the aviation policy of the Navy Department began to shape itself and real facilities for the production of aircraft became a necessity, an organization was formed under the Bureau of Steam Engineering that could design all naval aircraft power-plant material and balloon-gas equipment, as well as handle its production, operation, and maintenance. By this means the most important items of the power-plant equipment were handled directly by the bureau and manufactured in the plants best equipped for the purpose and sent to the aircraft builder for installation. This expedited the production work greatly as well as it accomplished a large saving in cost. For this purpose, 40 officers, in addition to the necessary civilian force, were necessary under the Bureau of Steam Engineering, and 150 officers, with the necessary civilian employees, were necessary for inspection in the field. All of these officers except one were from the reserve force.

During the war the Navy pooled its power-plant aviation requirements with those of the Army wherever possible. This included instruments, accessories, propellers, radiators, raw materials, and, particularly, engines and engine parts for service machines.

The Liberty engine was adopted as standard equipment by the Navy, in order to eliminate the very serious objection of having a number of different types of engines in the field and to conserve the supply of raw materials in the United States. The whole Liberty-engine production was placed in the hands of the Army, the Navy being allocated its share. The Navy adapted the Liberty engine to its machines with marked success from the time it received its first engine, got the first Liberty engine into the air in an HS flying boat at Buffalo, and continued the use of the engine with excellent results during the war.

There was under development during the war by the Navy the following experimental engines: (1) The Kessler supercompression 125, 200, and 400 horsepower engine; (2) the Lawrance 60-horsepower air-cooled static radial engine; (3) the Duesenberg 850-horsepower engine; (4) the geared Liberty 400-horsepower engine.

The Kessler engine gave great promise, but its mechanical difficulties never allowed it to get out of the embryonic stage. The Lawrance engine turned out splendidly and will form the foundation of the development of larger air-cooled static radial engines. European countries have been ahead of us in this respect, but the Lawrance engine is the best of its type. Lawrance is now going ahead with a 200-horsepower experimental engine. The Duesenberg engine was the first engine of its power, and made very good progress up to a certain period, when mechanical and ignition troubles held back its complete development. The liquidation of the Duesenberg Co. stopped the engine work at that plant. The geared Liberty engine development was carried on by the Army for the Navy during the war, but not much real progress was made. The Navy has handled this work since the armistice, and the engine is now being produced. This engine will be a great advance over the direct-drive Liberty engine for naval use, and it is of interest to note that by fitting gearing to the Liberty engine the great criticism that the Germans made of this engine will be overcome. The Navy took up the gearing of this engine sometime prior to the time that the Germans issued their report on the Liberty engine.

With the aid of the British air force, the Navy Department was able to produce a very successful type of leak-proof gasoline tank for use on the Navy

fighting planes. This tank would have prevented machines from taking fire from incendiary bullets fired into the fuel tanks.

The question of starting the engines of seaplanes and flying boats was always a problem with the machines in the water. The Navy developed the electric starter for aircraft engines and successfully applied it to various types of naval aircraft.

The use of steam for the propulsive machinery for aircraft has drawn the attention of engineers since aviation began. The Navy began the investigation of this matter in this country, and in March, 1919, the department authorized the expenditure of \$50,000 to carry out the work. The funds have been increased until a total of \$95,000 has been allotted. The investigation is encouraging as far as the successful construction of a steam plant that will take the air is concerned. The advantages of the practical application of steam to aviation can not be definitely established without aerial experience with the apparatus.

In lighter-than-air work, the Navy applied a hydrogen carburetor for the purpose of consuming in the engine the hydrogen that usually is valved from the dirigible envelope to equalize the life which is disturbed by the consumption of the gasoline fuels. This device was first used in the dirigible C-5 for the proposed trans-Atlantic flight, and was of material assistance in increasing the radius of action of that dirigible.

In connection with the above, the Navy has also developed an apparatus that will condense the water from the exhaust gases of the engine. It is possible to obtain about 1.35 pounds of water for every pound of gasoline burned. The saving of this water would mean that no hydrogen or helium would have to be released from the dirigible envelope to equalize the excess lift caused by the use of fuels. The apparatus that will do this has been successfully devised, but its application to an actual airship is still to be made. There are still practicable difficulties due to weight and head resistance involved.

The Navy developed the Union engine for dirigible use. This engine is conceded to be as satisfactory as any engine of its power in use to-day.

Engine development.—The Navy has investigated or used, among others, the following makes of engines up to and including the period of the war:

Aeromarine, Ashmussen, Bugatti, Clerget, Curtiss, Duesenberg, Fiat, Gnome, Gyro, Hall-Scott, Isotta-Fraschini, Hispano-Suiza, Kessler, Knox, Lawrance, Liberty, Le Rhone, Muffley, Orlo, Packard, Roberts, Rolls-Royce, Sunbeam, Sturtevant, Thomas-Morse, Wisconsin, Wright.

While each one of the above engines which was developed at the beginning of the war possessed merit along certain lines, a careful survey of the aviation engine field at the time showed none of the American engines had all the qualifications which would fit it for use in war service by either the Army or the Navy. There was no foreign engine of sufficient power and proved reliability which would withstand transplanting to the United States to be manufactured in the quantities which would allow this country's air service to be a factor in the war. The marked military advantage to be gained by having one type of engine for aviation led the Navy to join the Army in the development of the Liberty engine, and to place the production in the hands of the War Department. Identical types of the Hall-Scott and Hispano-Suiza engines were used in common by the Army and Navy, and the production of these was also placed in the hands of the War Department by the Navy. This action was taken to avoid all competition, and to utilize all airplane-engine industries to the utmost. The Union engine, and the Curtiss 100 and 200 horsepower types were not used by the Army, and the Navy handled the production of these engines directly.

Engines—Types employed.—The Navy concentrated its engine requirements mainly on the following types:

Curtiss 100 horsepower.
Curtiss 200 horsepower.
Hall-Scott 100 horsepower.
Hispano-Suiza 150 horsepower.
Liberty 400 horsepower.
Union 120 horsepower.

There were under construction experimentally: Duesenberg, Kessler, Lawrance which were hoped to be useful for war purposes.

Engines used by Navy.—On July 1, 1918, the Navy possessed, or had on order, the following aviation engines:

1300 Curtiss 100 horsepower.
360 Curtiss 200 horsepower.
200 Hall-Scott 100 horsepower.

620 Hispano-Suiza 150 horsepower.
 4,000 Liberty 400 horsepower.
 90 Union 120 horsepower.
 2 Duesenberg 850 horsepower.
 10 Kessler 120 horsepower.
 5 Kessler 200 horsepower.
 3 Kessler 400 horsepower.
 3 Lawrence 60 horsepower.

Subsequent to July 1, 1918, the following additional engines have been ordered:

450 Hispano-Suiza 150 horsepower.
 80 Hispano-Suiza 180 horsepower.
 122 Hispano-Suiza 300 horsepower.
 10 Lawrence 60 horsepower.
 5 Lawrence (experimental) 200 horsepower.
 280 Liberty 400 horsepower.
 13 Union 120 horsepower.
 4 Curtiss K-12 450 horsepower (experimental).

A tentative order of 400 Curtiss K-12 engines was also placed. This order was dependent upon the successful performance of the engine on test, which was never accomplished.

The Navy has also gone ahead with the experimental development of the geared Liberty engine, and has had 200 sets of gears manufactured. These will be used to convert 200 of the Navy's direct-drive Liberty engines into geared engines.

NC power plant.—The power plant development for the trans-Atlantic flight is worthy of some attention as an aviation engineering accomplishment by the Navy Department. It was necessary to install four engines in the planes that were originally designed for three engines, in order to be able to get the maximum load into the air. This involved installing two engines in tandem, and as the data on this was very meager, it was necessary for the Navy to pioneer the way. The efficiency of the propellers had to be compromised between a design that would lift the maximum load from the water and give a maximum economy in flight.

The engine economy had to be such that the distance to the Azores could be made in one flight with a slight margin to spare. By special carburetor settings and increasing the compression of the engine, the necessary fuel economy was obtained, and by the design of several sets of experimental propellers a combination was reached that allowed the Azores to be reached with a margin of 340 knots.

Helium.—The importance of the development of helium for use in lighter-than-air craft was early recognized by the Navy Department, and effective and energetic action was taken by the department in carrying on the helium project. The Navy Department has taken a leading part in the work, and certain personnel under the Bureau of Steam Engineering were designated by the Aircraft Board to supervise, in behalf of the Army and Navy, the funds which were allocated to the helium project. The Navy Department was assigned the task of building the helium production plant and the supervision of its operation.

Hydrogen generators.—The Navy developed, with the aid of certain French photographs and line drawings, and built the only portable hydrogen generating apparatus ever constructed in this country. These plants took care of the hydrogen production on all of the naval air stations in the United States. These plants were very successful, are in use to-day, and their successful development was a very creditable piece of engineering. The hydrogen practice of the Naval Service at the time of the signing of the armistice was found to be ahead of that which obtained abroad. This was largely brought about by following the advice of the foreign hydrogen experts. In all cases, they advised what they considered the ideal practice, and, as our service was new, we were able to follow their advice. It may be noted that during the war, the Navy did not have a single accident due to hydrogen, its equipment, or the methods of carrying on hydrogen operation.

Speed boat.—The Navy cooperated with Dr. Alexander Graham Bell in the development of a shallow craft boat to go over mine fields and to chase submarines. The final successful results were not accomplished until after the war need for the boat had passed. A craft known as the *HD-4* was constructed.

This boat was supported on hydrofoils, and was propelled by two Liberty engines, each power plant installation being identical with that used on the HS type of naval flying boat. The boat weighed 11,000 pounds fully loaded, made a speed of 70 miles per hour, and drew but a very few inches of water when at top speed.

Early development of aviation ordnance.—Prior to the outbreak of hostilities in the World War most of the developments in aviation ordnance were purely experimental. No satisfactory type of machine gun or airplane cannon had been developed. Such bombs as had been used at all were small in size and were not standardized in any way, either as to shape, method of fusing, or means of launching. Bomb sights were extremely rudimentary, usually consisting simply of a fore and back sight with approximate means for setting for altitude and for speed.

As aviation activities became of more and more importance with the experience of the war, it became more and more evident that aircraft, in order to obtain their maximum efficiency, must be fitted for both offensive and defensive operations as well as for scouting and reconnaissance work. Early endeavors along this line resulted in the arming of planes with rifles, pistols, and even with shotguns which were operated by the observer or by the pilot without any form of mount or any suitable sight.

These makeshifts did not prove satisfactory and there were gradually evolved various forms of mounts and sights. The Lewis machine gun and the Vickers machine gun were among the most successful types finally developed for this work and the scarf ring mount in practically its present form was found to be a satisfactory means of mounting a mobile gun. Fixed guns so arranged that they fired through the propeller with suitable timing gear to prevent the bullets from striking the propeller blades were gradually developed and were soon in successful operation.

Gun sights.—Gun sights which automatically compensated for the speed of the plane on which they were mounted and which embodied various means of compensating for the movement of hostile aircraft were brought into use and at the end of hostilities the Norman wind vane sight and the ring rear sight were in common use. A unit power telescope with graduations corresponding to the markings of the ring rear sight was also introduced and was preferred by many pilots.

Large-caliber guns.—The mounting of large-caliber guns and of cannon on aircraft was taken up later in the war, and cannon of 37, 47, and 75 millimeter caliber were successfully operated from aircraft by the various nations involved. Sights used on these cannon were usually automatic, compensating for the displacement due to the movement of the gun through suitable arrangements of cams and moving parts.

Ammunition.—Ammunition was developed to meet the varying needs; including, in addition to the ordinary machine-gun bullet, various types of tracer ammunition, which left a trail visible for several hundred feet and which was usually loaded in the proportion of one to four or five of the regular ammunition. At the close ranges at which aerial combats were held, this tracer ammunition afforded a valuable check on the accuracy of pointing with the sight. For attacking lighter-than-air craft and kite balloons, incendiary ammunition was developed, which was also used against the gasoline tanks of hostile airplanes. Supersensitive fuses, which would explode on impact with a wing surface or with the light framing of an airplane, were developed, as were armor-piercing bullets for use against planes which were fitted with light armor.

Protection against attack by gunfire.—To meet these varied forms of attack means were devised for rendering gasoline tanks leak proof and fire-proof by the use of coatings of rubber or other self-sealing substances. Planes constructed entirely of metal and planes carrying armor for the protection of the personnel and of the vital parts were also beginning to appear toward the end of the conflict.

Bombing.—One of the first possibilities of the use of aircraft for offensive purposes was seen to be in the dropping of explosives. At the outbreak of the war, bombs in the neighborhood of 50 pounds total weight had been experimentally in this country, and the British air forces had a standard bomb weighing about 65 pounds. As the carrying capacity of aircraft became greater the sizes of the bombs in use were rapidly increased. Much experience was obtained in the work against submarines and it was early discovered that bombs of the small size first employed were useless against

large, strongly-built submarines. The British first increased their bomb to 100 pounds, then to 230 pounds, and later to 520 pounds for routine work in antisubmarine patrols. The history of bomb development in the French antisubmarine service was practically the same. The French started with a bomb weighing about 52 kilograms, then went to 75 kilograms, and then to 150 kilograms in weight. In this country the first bomb used in anti-submarine patrols weighed about 163 pounds. This was shortly followed by bombs weighing 230 pounds, 270 pounds, and at the end of hostilities bombs of 520 pounds weight, patterned after the British designs, were under construction.

For bombing on shore, various types of demolition and fragmentation bombs were developed. At the time of the cessation of hostilities heavy case bombs of 112, 250, and 550 pounds weight were in daily use in large quantities, and bombs weighing 1,000, 2,000, and even 3,000 pounds had been produced experimentally with entire success, and would doubtless have been in common use had hostilities continued for a longer time.

Bomb sights.—The development of bomb sights called forth the best talent available in every service concerned. Many elements enter into the construction of a satisfactory and accurate bomb sight and designers in various countries have approached the problem from many different angles. For land work the Wimperis high-altitude sight and the French Michelin sight were probably among the most successful in use. In the early days of bombing it was essential that the aircraft be moving either with or against the wind as none of the early sights were designed to permit of bombing accurately when drifting across the wind. This fact made bombing difficult as it necessitated approaching the target along one or two directions which could be anticipated by the antiaircraft forces. Maj. Wimperis, of the English Air Service, developed and produced the first sight which could be used without regard to the direction of the wind. This sight was being produced in England about the time this country entered the war and it was immediately taken up by the United States Navy Department, improved, developed, and manufactured in this country for use with American flying boats and seaplanes. Thirty-five hundred of these sights were contracted for, the number being afterward reduced to 2,200 to suit conditions at the time of the armistice.

Supply to forces overseas.—American naval air forces operating in European waters obtained the larger part of their ordnance equipment from overseas as the countries in which they were serving were able to supply material needed and it was the department's policy to use the space in vessels crossing the Atlantic for other equipment which was more badly needed. Naval air forces operating from stations in the United States were completely equipped with material manufactured in this country. Approximately 16,000 bombs of all sizes were manufactured with the necessary gears and fittings for the large program of aircraft they were to arm. Machine guns, mounts, sights, and training devices of various kinds were supplied in adequate quantities. Machine guns and ammunition and a few antisubmarine bombs were shipped abroad. Toward the end of hostilities the so-called northern bombing squadron was formed for the purpose of bombing Belgian naval bases occupied by the Germans. The United States Navy and Marines were to operate in conjunction with the British air forces in attacking these bases. Bombs to be used in this program were to be manufactured and loaded in the United States and production on them was about to commence at the time of the signing of the armistice.

Developments since the war.—In this country experimental development of large size and of heavy case bombs has been continued. One of the most important developments under way is the construction of a machine gun for airplanes of larger size than the standard .30 or .303 caliber gun previously in use. Many cases were noted during the war of machines returning from service with large numbers of .30 caliber bullet holes that had not been sufficient to put them out of action. The need of a larger machine gun is evident and a .50 caliber gun along the lines of the Browning machine gun is being brought out and should be ready for issue shortly.

Improvements in bomb sights is being continued and both the Army and Navy are cooperating to standardize the various types of bombs, fusing components, bomb gears, etc., with the idea of avoiding duplication, reducing the number of types in use and of making these types interchangeable between the Army and the Navy.

A recent addition to the Navy's list of aviation ordnance equipment is to be found in the synchronized machine guns mounted on small planes in use with

the fleet. During the war practically all of the Navy's flying activities were concentrated on antisubmarine controls and convoy work. Since that time small land type flying machines have been installed on ships of the fleet and ordnance equipment for them following the lines of combat planes developed for work on land has become necessary and has been supplied.

Personnel, 1917-18.—In the United States at the outbreak of the war the number of trained aviators or of persons at all familiar with aviation was small. The early training of pilots and mechanics has covered only the flying of aircraft, without the requirements added through the operations of combat. For the purposes of the war, in order to operate successfully the bombs and machine guns making up the armament of aircraft, numerous trained crews composed of pilots, machine gunners, and observers became necessary. In addition, a very large force of so-called trained ground personnel was required. The enrollment and training of the tremendous numbers of men and officers demanded was in itself a task of stupendous magnitude. To carry this work on while active operations were in progress added vast complications to the problems confronting those charged with these responsibilities.

The strength of enlisted and commissioned personnel of the Navy and Marine Corps assigned to aviation duty on April 6, 1917, and the same as of November 11, 1918:

	Apr. 6, 1917.	Nov. 11, 1918.
Navy:		
Officers (naval aviators).....	38	1,656
Officers (student naval aviators).....		28
Officers (ground).....		891
Student officers (under training for commission).....		3,881
Total officer personnel.....		6,716
Men (aviation ratings).....	163	21,951
Men (general ratings assigned to aviation duty).....		8,742
Total enlisted personnel.....		30,693
Total personnel.....		37,409
Marine Corps:		
Marine officers on aviation duty.....	5	282
Enlisted men (marines) on aviation duty.....	30	2,150
Total personnel.....	25	2,432

On the date of the armistice Naval Aviation had sent abroad the following personnel:

Officers.....	1,237
Enlisted men (aviation ratings).....	8,215
Enlisted men (aviation duty—miscellaneous ratings).....	8,072
Total personnel.....	17,524

Casualties.—The total Naval Aviation casualties during the war amounted to—

Abroad:	
Officers.....	36
Men.....	86
Total abroad.....	122
At home:	
Officers.....	38
Men.....	48
Total at home.....	86
Total.....	208

MARINE CORPS AVIATION.

Marine Corps aviation began on May 21, 1912, when Lieut. Alfred A. Cunningham, United States Marine Corps, was ordered to join the four pilots comprising at the time Naval Aviation. Some six months later Lieut. Bernard L. Smith, United States Marine Corps, was also ordered to aviation duty. Shortly after May, 1912, several marine enlisted men were ordered to aviation duty, forming the nucleus of the present marine section of Naval Aviation. This personnel was gradually added to, and has operated continuously since that time with Naval Aviation at Guantanamo, Cuba; Vera Cruz, Mexico; in Haiti, and in Santo Domingo.

On April 6, 1917, the marine section of Naval Aviation consisted of 5 officers and 30 enlisted men stationed as part of the complement of the Naval Air Station, Pensacola, Fla. In October, 1917, the First Marine Aeronautic Company, consisting of 10 officers and 93 enlisted men, was organized to perform antisubmarine patrol duty. On December 7, 1917, this company, consisting of 12 officers and 133 enlisted men, were ordered to naval base No. 13, Ponta Delgada, Azores, and operated as an antisubmarine patrol until January 24, 1919, when they were returned to the United States. This company was the first completely equipped American aviation unit to leave the United States for service in the war.

On October 17, 1917, the First Aviation Squadron of land flyers was organized, and training was carried on at various fields.

On July 13, 1918, the First Marine Aviation Force was organized at the marine flying field, Miami, Fla., consisting of Squadrons A, B, C, and D, and headquarters company. This organization was trained to perform the day bombing work of the proposed northern bombing group, and consisted of 182 officers and 1,030 enlisted men. It sailed from New York City for France on July 18, 1918, and arrived at Brest, France, on July 31, 1918. The organization proceeded at once to aerodromes situated between Calais and Dunkirk. The First Marine Aviation Force was completely trained, organized, and ready for service when it arrived at the front. When the northern bombing group headquarters was organized, the First Marine Aviation Force became known as the day wing, northern bombing group, and performed service both with the British aviation squadrons at the front and also independently. The total number of raids made by Marine Corps personnel was 57, 14 of these being carried out by the day wing independently of other organizations.

The organization participated actively and creditably in both offensives on the Flanders front, carried out raids from behind the enemy lines, did considerable damage, and brought back valuable information. A feat worthy of mention was performed by Marine Corps pilots. A French regiment was cut off by the enemy near Stadenburg, and it was decided to attempt to feed them by airplane. Marine Corps pilots loaded up with food and flew low over this isolated regiment and successfully dropped 2,600 pounds of food to them in the face of heavy fire from artillery, machine guns, and rifles. This process was continued for two days until the regiment was rescued. So far as is known, this is the first instance where troops under fire have been fed by airplane.

The following is a condensed report of the operations of the day wing, northern bombing group:

Number of raids participated in by marine flyers serving with British and French	43
Total number of bombing raids completely marine	14
Total pounds of bombs dropped	52,000
Number of food raids	5
Pounds of food dropped	2,600
Number of enemy aircraft shot down	12
Number of casualties:	
Officers	9
Enlisted men	20

TRAINING.

Slight thought will give an idea of the immense organization necessary to train the thousands of young men who volunteered for and were assigned duties as officers and as mechanics in the Air Service of the Navy during the

World War. The problem was attacked vigorously and within six months training classes were in full operation at the following schools and stations:

Schools—

Massachusetts Institute of Technology, Cambridge, Mass.

Dunwoody Industrial Institute, Minneapolis, Minn.

Columbia University, New York City.

University of Washington, Seattle, Wash.

Aviation detachment, Akron, Ohio.

Naval aviation detachment, Great Lakes, Ill.

Stations—

United States Naval Air Station, Pensacola, Fla.

United States Naval Air Station, San Diego, Calif.

United States Naval Air Station, Bay Shore, Long Island.

United States Naval Air Station, Rockaway, Long Island.

United States Naval Air Station, Hampton Roads, Va.

United States Naval Air Station, Miami, Fla.

Aviators received preliminary training in naval customs, discipline, and technique at the Massachusetts Institute of Technology. This course lasted for three months. The school opened on July 23, 1917. In December, 1917, the course was enlarged to include an inspector's courses for planes and for motors and in aerography, in addition to flight and ground training.

Because of the fact that the school at the Massachusetts Institute of Technology was crowded to capacity, similar schools were established at the University of Washington, at Seattle, and at the Dunwoody Institute.

Under the direction of Dr. C. A. Lucke, a gas-engine training school was established at Columbia University, New York. Students other than those engaged on gas-engine work were sent to naval schools at various stations.

The United States naval air station at Pensacola, Fla., was the largest aviation training station operated by the Navy. Its facilities were utilized to the fullest extent. Those who could not be given flight and operative training at Pensacola were sent to Chatham, Bay Shore, Rockaway, Hampton Roads, Miami, Key West, Akron, and San Diego.

Enlisted men.—Enlisted men for aviation duty were detailed to the various naval air stations above listed and there trained in aviation and in naval procedure.

A school for aviation mechanics was established at the United States naval training station, Great Lakes, Ill. To this school mechanics who had been selected for special qualifications were sent for advanced training. It became one of the largest and, perhaps, one of the most successful manual training schools in this country, if not in the world.

At the time of the signing of the armistice there were 16,287 enlisted men performing duty either in aviation ratings or aviation duty under miscellaneous ratings. Practically all of these, as well as 7,000 officers, were trained during the period of hostilities.

Shore stations, 1917-18.—The list of shore stations established for aviation at home and abroad by the Navy and Marine Corps on April 6, 1917, and the number maintained on November 11, 1918, is given below:

Shore stations maintained for aviation April 6, 1917:

One station only, located at Pensacola, Fla.

Shore stations, schools, and detachments maintained for aviation November 11, 1918:

America:

Anacostia, D. C., experimental station.

Bay Shore, Long Island, preliminary flying school and emergency patrol station.

Brunswick, Ga., patrol station.

Cape May, N. J., patrol station, lighter than air.

Chatham, Mass., patrol station, lighter than air.

Coco Solo, Canal Zone, patrol station, lighter than air.

Dunwoody Institute, Minneapolis, Minn., ground school.

Hallifax, Nova Scotia, patrol station, heavier than air.

Hampton Roads, Va., patrol station, heavier than air.

Key West, Fla., preliminary flying school and heavier than air and lighter than air patrol station.

Marginal Parkway, N. Y., supply station, lighter than air.

Massachusetts Institute of Technology, ground school.

Miami, Fla., preliminary flying school and heavier than air and lighter than air patrol station.

Miami, Fla., marine school, land-flying instruction.

Montauk, Long Island, patrol station, heavier than air and lighter than air.

Morehead City, N. C., patrol station, heavier than air.

North Sydney, Nova Scotia, patrol station, heavier than air.

Pensacola, Fla., advanced ground and flight school.

Rockaway, Long Island, patrol station, heavier than air and lighter than air.

San Diego, Calif., preliminary flight school.

Seattle, Wash., ground school.

Great Lakes, Ill., mechanics' school.

Azores:

Ponta Delgada, Azores, advanced base and detachment marines.

France:

Autinges, headquarters northern bombing group.

Campagne, Navy night-bombing field—never commissioned—two hangars erected.

Le Frene.

St. Inglevert.

Oye, day-bombing field—Marine Squadrons 7 and 8—northern bombing group.

Bois en Ardres, day wing—Marine headquarters, northern bombing group.

Arcachon, patrol station, heavier than air.

Brest, kite-balloon station.

Dunkerque, patrol station, heavier than air.

Fromentine, patrol station, heavier than air.

Gulpavas (Brest), dirigible station.

Gujon, dirigible station.

Ile Tudy, patrol station, heavier than air.

L'Aber Vrach, patrol station, heavier than air.

Le Croisic, patrol station, heavier than air.

La Pallice, kite-balloon station.

La Trinite, kite-balloon station.

Moutchic, heavier-than-air flying and ground school.

Palmboeuf, dirigible station.

Paulliac, assembly and repair base.

St. Trojan, patrol station, heavier than air.

Tregueir, patrol station, heavier than air.

Great Britain:

Berehaven, kite-balloon station.

Eastleigh, assembly and repair base.

Lough Foyle, patrol station, heavier than air.

Queenstown, assembly and repair base and heavier-than-air station.

Wexford, patrol station, heavier than air.

Whiddy Island, patrol station, heavier than air.

Italy:

Porto Corsini, bombing and patrol station, heavier than air.

Lake Bolsena, flight and ground school.

Total, 53.

Results.—A query which will be raised in the future—already it has been suggested—as to whether or not the vast expenditure of funds and the tremendous amount of labor involved in the creation of air bases at home and in foreign lands were worth while. These will probably remain mooted points which can never be satisfactorily and definitely settled. When considering the financial side of the question, the fact that the expense of projects was considerably reduced by the liquidation of materials and equipment should be kept in mind.

Positive results would seem to indicate that expenditures of money, effort, and time were not wasted. In the records which have been compiled it will be noted that previous to the establishment of this great aviation activity on the French coast submarines frequented these waters. The losses of shipping were considerable from the effects of torpedo, gunfire, and exploding mines. With the establishment of the United States aviation stations in France the submarine ceased its work of destruction near the shores and only sporadic and generally ineffective hostile activity on the part of these vessels occurred in coastal waters. Aviation, of course, can not claim full credit for this result. It will share, however, with the adoption of a daylight system of convoys, and the im-

proved methods for escort by surface craft, the credit of having eliminated the enemy from this, a former fertile field for his endeavors. After the establishment of the United States naval air stations in France not a single convoy, escorted by aircraft, either French or American, were successfully attacked by a German submarine on the western shores of France. The number of allied vessels lost through submarine agency on the French coast during this period has been insignificant. One can not measure properly the success of aviation in this neighborhood by the number of submarines sighted or sunk. A better standard is that based on the number of ships which have not been destroyed by the enemy. Certainly aviation has produced tangible and direct results when measured by this criterion.

Another and perhaps equally important feature has been the moral influence upon the enemy as well as upon the Allies of the successful prosecution of a tremendous enterprise. There is every reason to believe that the Central Powers were fully aware of what was being undertaken. Our allies were kept well informed of what was going on. The knowledge that the work was being pushed with determination and that the United States had the firm resolve to make the naval aviation force a powerful and aggressive influence must have been a potent factor. Everywhere in the neighborhood of stations a change became noticeable in the attitude of local inhabitants as our centers sprang into existence and grew in response to the efforts of the hundreds of enthusiastic and active men making up their crews. There can be no doubt that this moral influence was enormous. That it had a positive effect upon the result of the war there can be no question.

It is true that money could have been saved had the enterprise been cast in a smaller mold and had it been prosecuted less vigorously. At the time of its conception no one had an idea that the force of our enemies could collapse as it did, and stations were erected with the view that hostilities might continue for a much longer period of time than proved to be the case. Success was achieved and the results desired obtained. Of this there is certainty. What might have been had other plans been followed must always remain a mere surmise.

At the close of hostilities practically all of the United States stations abroad were in operation or were prepared for operation. It is true that deficiencies and defects existed, but these are ever present companions. In lighter-than-air craft particularly there were serious deficiencies in material equipment. These latter were being filled as rapidly as practicable through contracts placed in France for vessels of this class.

The credit for the carrying on and the completion of the work of aviation belongs essentially to the young men who joined the service from civil life. Unfamiliar with naval methods and entirely unaccustomed to the curious existence which, in many cases, became theirs in isolated districts, their efforts everywhere provoked the most enthusiastic acclamation. Breaches of discipline were very rare, and it is believed that the personnel of aviation quit the scenes of its activity retaining everywhere the admiration and respect of the foreign people with whom they were associated.

To the flying personnel the highest commendation belongs. No instance of flagging or failure in attempting the dangerous work assigned them was ever noted. Many paid the supreme sacrifice in their devotion to duty, and the skill and courage with which all acquitted themselves everywhere was praised by the older flyers of the allied services with whom our young men were associated.

Aviation left the scene of its activities everywhere with pride in its work born as a result of successful achievement, of having been a part of the Navy, and of having assisted the Navy to bring to a conclusion the stupendous problem assigned that service during the World War.

Purposes.—Before outlining the achievements of naval aircraft during the war, it is, perhaps, well to indicate the purpose which prompted the Navy to undertake an extensive aviation project.

The first year of the war between the Allies and the Central Empires clearly demonstrated the effectiveness of the development of design for subsurface seagoing vessels as well as of aircraft. The submarine, after the first few months of the conflict, proved to be the sole efficient agent available for the conducting of hostilities at sea by the Central Powers. These craft cruised practically at will, and with torpedoes, mines, and guns created havoc with the commerce of the Allies, and through their dangerous agency a blockade of the French and English coasts was declared. To combat the submarine, mer-

chant vessels were armed; a system of surface patrol was inaugurated; the plan of ocean convoy was reviewed, and mine fields and mine barrages for opposing the activities of these vessels were created.

The development of the motor which permitted undersea navigation also produced a tremendous advancement in aviation. It is not necessary here to go into details with regard to this advancement or to take up the arguments pro or con on the utilization of various forms of aircraft for antisubmarine warfare or the methods suggested for their employment. It is sufficient to state that at the time for the entrance of the United States in the World War the number of air stations on the coast of France, England, and Ireland, and in Italy was regarded as insufficient. The protection of the great number of American transports and cargo ships which were to enter that region made it absolutely necessary to increase antisubmarine operations in the war zone. With this object in view, negotiations were opened with foreign governments.

There were four modes of operating, as follows: Routine patrol; escort patrol to convoys; emergency patrol; and special bombing patrols over submarine bases.

Large seaplanes with an extensive cruising area were generally used for routine patrol. These planes carried either one or two bombs, weighing either 230 or 500 pounds each, and were also provided with machine-gun equipment. As a rule, smaller type aircraft were used for convoy escort. These, too, carried bombs and machine guns. A specially designated seaplane, always kept in readiness, was maintained at all times at the stations for emergency patrols. For bombing operations against submarine bases different types of planes were used; in some cases, especially in the so-called northern bombing group, land planes having been assigned to this particular work.

The method of operations of the patrols was as follows: Each naval air station had a certain defined zone of operation, and it was the duty of the officers in charge to so plot out their patrols that they would most effectually and thoroughly cover the sea area within their jurisdiction. This applied to the routine patrols. For the purpose of convoy escort the course to be followed by the seaplanes necessity was limited to the course traversed by the vessels and varied with the particular situation. An emergency patrol may be defined as one sent out to a precise location at sea in answer to advices of enemy activities presently existing at that point. A patrol against submarine bases was one despatched from a naval air station, either over land or over the sea, to a neighboring port at which submarine activities were concentrated. A routine patrol normally lasted an average of three hours, although in some instances there are records of routine patrols by seaplanes covering a period of five hours in duration, and a mileage of over 300 nautical miles.

The primary purposes of these routine patrols was one of search of enemy surface or under-surface craft. Their mission was wholly offensive in character, and required them to bomb all enemy craft encountered. The primary purpose of a convoy escort patrol was to cooperate with the destroyers and accompanying naval vessels in protecting troops and supply ships both in and out of allied ports.

These seaplane escorts to convoys were planned with reference to the speed of the convoy, and generally speaking, operated in a succession of oval loops covering the convoyed train. By the use of several planes following one another at stated intervals and keeping relatively the same distance from each other, the adjacent sea areas were thoroughly and continuously kept under observation. Operations by naval aircraft against submarine bases were carried out as follows: They were usually despatched by the shortest route possible to the objection, released their bombs, and as soon as possible returned to their home station.

Foreign development.—The first unit from the United States sent abroad during the World War was a naval aeronautical detachment on duty at Pensacola, Fla. On May 9, 1917, this detachment, consisting of 100 men and 6 officers under the command of Lieut. Commander Whiting, was ordered to proceed to France, where it arrived in June, the first complete military or naval unit from our country assigned to foreign service.

Negotiations with foreign authorities developed the line of action considered necessary for our aviation contingent, and we were at once urged to take up aviation extensively in France and England, and later in Italy. Patrol stations were soon established in the vicinity of shipping and transport areas, and

regular patrols and convoys by a seaplane or dirigible were begun. Usually, operations were carried on simultaneously with the work of constructing stations.

In building up aviation abroad a stupendous work was accomplished and completed in the face of serious obstacles, one of which was incident to conducting affairs in a strange country where both custom and language were different from those with which there was familiarity. Transportation in and from the United States was difficult, but it was even more difficult to ship materials from points on that coast to other points than to have them delivered in Europe directly from our home ports. Generally, aviation stations were constructed by our own forces, and men and officers, enrolled from every walk of life, were found well qualified to answer practically every call made upon them. In every instance, difficult situations were met and what oftentimes seemed serious obstacles were overcome by the grim determination and persevering efforts of the young men making up the Aviation Service, many of whom now have left the Navy and resumed their civil occupations.

FOREIGN OPERATIONS.

France.—In France the construction and operation of air stations were from October, 1917, until August, 1918, directly under the command of Capt. H. I. Cone, who was also in general charge of naval aviation forces foreign service. On August 1, 1918, the aviation forces in France with the exception of the northern bombing group were placed under the command of Rear Admiral H. B. Wilson, commander of United States naval forces in France.

Capt. T. T. Craven, as aid for aviation, on the staff of Admiral Wilson, was directly charged with all aviation matters. On August 1 Capt. H. I. Cone moved to London and became a member of the staff of Admiral Sims.

The success of naval aviation operations in France can be best shown by a statement of the antisubmarine section of the French ministry of marine bulletin, "de la Guerre-Sous-Marin," stating that during the last 10 months of the war three ships were torpedoed or destroyed by cannon in patrol areas between Point of Penmarch and Ile d' Yeu, whereas in the same region there was a loss of one ship a day before the aerial patrol service of the Loire was created. The remarks in a French official document regarding the results of our efforts in the district of the Loire is of interest. "The entrance into the service of the Franco-American patrols of the Loire, acting in absolute cooperation with the reorganized and increased surface patrols, broke the blockage by enemy submarines of the French coast, and enabled the authorities to receive accurate information regarding the location of enemy submarines, besides compelling them to cruise in regions where navigation was not very extensive."

The first American patrol in France was made at Le Croisic on November 18, 1917, and consisted of six French machines manned by American pilots, and the last patrol was made at Brest on December 13, 1918, upon the occasion of the President's arrival.

Material received from French.—It was necessary to procure a great deal of flying equipment abroad in order to expedite the commencement of operations. A considerable quantity of material was purchased in both England and France, but the greater part came from France. From this country we obtained a total of 135 heavier-than-air craft with engines and accessories. Twelve dirigibles were ordered from the French Government, the order for three of which was cancelled upon the declaration of the armistice. Aside from the above, an immense amount of equipment, such as bombs, bomb sights, and instruments was obtained.

Northern bombing.—The northern bombing group was organized for the purpose of bombing submarine bases in northern Belgium. The group was commanded by Capt. D. C. Hanrahan and was operated with and under the British control as a part of the aviation contingent attached to the Dover patrol. This group was composed of eight squadrons, divided equally into day and night bombing units, day bombing being assigned to the marines and night bombing to the Navy. This project operated with headquarters at Aultingues, France. Due to the scarcity and inadequacy of machines, operations of the northern bombing group were restricted until just before the armistice was signed. The first night bombing operation was carried out over the submarine shelters in Ostend in August, 1918. The first operation of the day wing took place on October 14, 1918, in the form of a bombing raid over the railway siding at

Thielt. In all, from the date of the first raid by the day wing until operations were suspended, eight raids were conducted by this wing and a total of 15,502 pounds of bombs dropped on enemy territory. The night wing dropped only 2,670 pounds, due to the unfitness of certain foreign machines purchased for night bombing work. In operations assisting the British, however, United States naval personnel dropped 60 tons of bombs on various naval and military objectives in Belgium.

Great Britain.—Operations in Great Britain were carried on by five stations, four being located in Ireland and one in England. The patrol station at Killingholme, in England, was placed in commission on June 30, 1918, and from that date until the signing of the armistice, under the direction of Commander Whiting, conveyed 6,000 allied vessels and covered approximately 60,000 miles upon 233 patrols. This station was intended primarily for the purpose of furnishing a base for conducting offensive operations in Heligoland Bight. Due to the inadequacy of machines available at that time, patrols of this area were not feasible; and pending the construction of machines capable of this duty, shorter patrol and convoy operations were carried on. During the progress of hostilities many of our pilots were loaned to the British forces and were everywhere praised in the highest terms.

In Ireland the United States aviation group was commanded by Commander F. R. McCrary, United States Navy, though in operation but a short time, the stations rendered important service and bombed seven enemy submarines incidental to their operations.

Italy.—In Italy, United States aviation forces were under the direction of the naval attaché, Capt. R. Train, with Lieut. Commander J. L. Callan in direct charge. Operations in Italy were confined to training of pilots and the operation of one station for offensive bombing operations against the harbor of Pola. The training school was first placed in commission February 21, 1918, at Bol-sena, Italy, and qualified a total of 73 pilots during the period of operation.

The first official flight at this station was made on February 23, 1918. The United States naval air station at Porto Corsini was placed in commission July 24, 1918, and the first official raid over Pola took place on August 21, 1918. Regular bombing raids and patrol operations over the harbor of Pola were conducted during the entire period of operation of the station until the signing of the armistice between Austria and Italy on November 4, 1918. A naval air station at Pescara was under construction at the time of the signing of the armistice, but was upon that date abandoned. All flying equipment used in Italy and the equipment of the stations taken over and operated by United States forces was provided by the Italian Government.

Following is a summary of the destruction and damage to German and Austrian submarines by American forces during the war reported in a recent dispatch received from Admiral Knapp:

The United States Navy is credited with 12 as possibly damaged; 2 possibly seriously damaged; 1 encountered, no record as to damage.

Following aircraft operated by United States naval aviation personnel should be given credit for destruction or damage to enemy submarines during the war:

ILE TUDY.

August 3, 1917, 5 miles northwest of Point Penmarch; pilot, Ensign Sprague; probably damaged.

April 28, 1918, 6 miles southwest of Point Penmarch; pilot, Ensign K. R. Smith; submarine reported by French as having been encountered.

May 16, 1918, latitude 50° 38' N., longitude 5° 20' W.; pilot, Ensign Stahyel; probably damaged.

July 5, 1918, 2 miles south of Point Ervilly; pilot, Ensign Rowen; possibly damaged.

September 27, 1918, 8 miles of Penmarch; pilot, Ensign Pou; probably damaged.

KILLINGHOLME.

August 9, 1918, definite position unknown; pilot, Ensign Schieffelin; probably seriously damaged.

August 22, 1918, 600 miles east Withernshot; pilot, Ensign Ives; possibly damaged.

July 9, 1918, latitude 53° 57' N., longitude 1° W.; pilot, Ensign Schleffelin; probably seriously damaged.

July 25, 1918, latitude 54° 7' N., longitude 4° E.; pilot, Lee; possibly slightly damaged.

DUNKIRK.

August 11, 1918, 27 miles southwest Dunkirk; pilot, Ensign DeCerne; probably damaged.

August 13, 1918, latitude 51° 17' N., longitude 1° 53' E.; pilot, Ensign Carson; probably slightly damaged.

WEXFORD.

September 21, 1918, latitude 52° 10' N., longitude 5° 52' W.; pilot, Ensign Froass; probably damaged.

October 11, 1918; latitude 51° 35' N., longitude 6° 32' W.; pilot, Ensign Garvey; probably damaged.

LOUGH FOYLE.

October 19, 1918, latitude 55° 40' N., longitude 7° 45' W.; pilot, Ensign Montgomery; probably damaged.

PORTLAND (ENGLAND).

March 25, 1918, definite position not known; pilot, Ensign McNamara; possibly damaged.

Results.—A total of 39 attacks on enemy submarines is accredited to naval aviation forces operating in European waters, and, in all, approximately 80 tons of bombs were dropped on enemy objectives.

When one considers the difficulties confronting those charged with the construction and operation of our air stations in foreign lands in time of war and in face of the tremendous obstacles incidental to transportation through submarine infested areas of all materials and personnel, one can not fail but to come to the conclusion that a great work was accomplished.

Drive on Paris.—On March 30, 1918, when the German drive on Paris looked to be very serious, the personnel of the naval aviation was offered to the Allies for services behind the lines for transport or other auxiliary work.

The following telegram, dated April 3, 1918, is of interest:

"Vice Admiral Bebon and Gen. Foch consider that present circumstances do not call for presence at front of this force, since they have at hand all forces needed. If such condition should arise, Gen. Foch will certainly call upon Admiral Sims and will accept offer. Gen. Foch thanks Admiral Sims most warmly for this new proof of the ardor with which the United States participates in the war. Minister of War and the Minister of Marine were informed of the offer.

"Above opinions are those of Gen. Foch and Admiral Debon, who are in accord. It is not deemed advisable to assemble and hold in readiness this force for possible use within fortnight. 15303." (Jackson to Wilson.)

UNITED STATES COASTAL OPERATIONS.

Operations on our own coasts consisted of the establishment of naval air stations, schools, and supply bases along the same fundamental lines of those created in the war zone. At the date of the signing of the armistice there had been established 10 air stations distributed at strategic points from North Sydney, Nova Scotia, to Key West, Fla., and one air station on the west coast in the Canal Zone. Regular daily patrols of all shipping and transport areas were carried out and aircraft were detailed to accompany all important convoys. During the year 1918 United States naval seaplanes flew a total of 40,883 hours on patrol duty, and upon training and patrol duty combined flew a grand total of 219,011 hours. Patrols during the last three months of the war covered 1,305,000 nautical miles. Lighter-than-air craft for the same period flew a total of 15,679 hours upon training and patrol duty. During the fiscal year

1918 lighter-than-air flight operations in the United States and Canada alone were as follows:

	Flights.	Hours.
Patrol flights:		
Airships.....	431	1,724
Kite balloons.....	311	3,421
Total.....	742	5,145
Flights other than patrol:		
Dirigibles.....	4,148	4,132
Kite balloons.....	2,224	4,168
Free balloons.....	862	1,325
Total.....	7,234	9,625

Peace achievements.—The following developments and achievements mark the results of naval aviation activities during the war:

The large NC type flying boat, capable of carrying very heavy armament, was successfully developed for long-distance war patrols. This boat was not finished in time to engage in active combatant operations.

The success of the design and construction of this machine was demonstrated in its utilization for the first Trans-Atlantic flight from Trepassey Bay and the Azores to Lisbon, Portugal, undertaken by three of the NC type in May, 1919. Two of the boats were forced down at sea due to navigational difficulties but one completed the flight successfully. The total distance of 4,513 land miles from the naval air station, Rockaway, Long Island, N. Y., to Plymouth, England, whence this plane was flown from Lisbon, Portugal (the official terminating point of the Trans-Atlantic flight) was covered in 53 hours and 31 minutes flying time. The flight started at 10 a. m., May 8, 1919, and ended at 10.22 a. m., May 31, 1919. This historic feat will always remain as a brilliant achievement for the United States Navy and for naval aviation.

On April 25, 1919, a twin-motored flying boat of the F-5 type, fitted with two direct-drive high-compression Liberty engines, made a nonstop flight of 20 hours and 10 minutes, during which time a distance of approximately 1,250 nautical miles was covered. This boat carried a crew of four and the total weight was approximately 16,200 pounds.

Another important achievement of naval aviation is the development of lighter-than-air craft of which the Navy possessed practically none at the declaration of war. During the war there was designed, constructed, and developed what is considered to be the most efficient nonrigid dirigible in present use. The C-5 of this class established what is believed to be a record flight for a nonrigid airship upon May 14 and 15, 1919.

The flight started at 8 a. m., May 14, 1919, at Cape May, N. J., and ended at 9.50 a. m., May 15, 1919, at St. Johns, Newfoundland. During this period a total distance of 1,022 nautical miles was negotiated, the actual time in the air being 25 hours and 50 minutes.

National Advisory Committee for Aeronautics.—In the act making appropriations for the naval service for the fiscal year ending June 30, 1916, a provision was incorporated establishing the National Advisory Committee for Aeronautics, and including the sum of \$5,000 for its purposes. This committee, of which Dr. C. D. Wolcott has been chairman, has rendered valuable service to the country in studying the scientific problems of flight and in advising upon matters difficult of solution, arising during the World War. The committee remains a valuable organization for the coordination of national aviation activities.

Aeronautical Board.—In October of 1916 the Joint Army and Navy Board on Aeronautic Cognizance was established to consider the questions relating to the construction of rigid airships in the United States. In January, 1917, the scope of the board was increased to include a number of subjects relating to aeronautics in the Army and Navy. The operation of the board was handicapped by being composed entirely of officers who had other duties. Accordingly, early in June, 1919, a new precept was prepared, to cover all phases of Army and Navy aviation activities, and one officer from both the Army and Navy were detailed to the board as working members to give their undivided attention to its functions. At the same time the name of the board was changed to the Aeronautical Board.

The duties of this board are to make recommendations concerning the coordination of the aeronautic work of the Army and Navy which is along similar lines—production, training, operation, selection of aviation bases and sites, purchase of material abroad, etc., and for the coordination of the aviation activities of the Army and Navy with other branches of the Government and civil aviation organizations.

A great service has been accomplished by the board toward bringing the two services in closer touch, in acquainting each with the activities of the other, in preventing duplication of work and installation, and in utilizing wherever possible the facilities of the other service.

Demobilization.—Immediately upon the cessation of hostilities and when it appeared certain that no further activity would be expected of naval aviation units, in so far as practicable, all outstanding contracts for construction, operation, and materials were cancelled; and steps were taken to demobilize personnel, to dispose of material, and to liquidate our properties. The property upon which stations had been situated were derequisitioned as promptly as possible, buildings were demolished or sold, and steps for the adjustment of claims arranged.

Abroad, the business of liquidation was placed in the hands of two boards—one with headquarters in London and the other with headquarters in Paris. In France, where our greatest investment had been made, liquidation has been completed. In England, stations have been turned over to British authorities and final arrangements for their disposition have not yet been consummated. In Italy, American aviation units occupied stations supplied by the Italian Government so no liquidation processes were necessary. In France a very large amount of supplies and equipment was sold to the Commission for the Relief of Belgium and was utilized for reconstruction and rehabilitation in the devastated regions of northern France and Belgium. A naval aviation unit, made up of volunteers, was supplied for erecting houses and handling stores under the direction of the Commission for the Relief of Belgium and this was the first and, for several months, the only organized unit working for the relief of the destitute inhabitants in the devastated regions. The American Red Cross and the United States Army also took over much material from the Navy at the time of demobilization. As a result of the liquidation proceedings many millions of dollars were saved and will revert to the Treasury of the United States.

Very shortly after the armistice about half the aviation personnel abroad was returned to the United States for demobilization. Of the remainder, retained abroad to assist in liquidating properties, a great number were formed into the nucleus crews for the manning of the German ships utilized for the returning of our troops.

Demobilization in the United States.—The demobilization of Navy personnel in the United States had reached an advanced stage by June 30, 1919, when all aviation officers who had not expressed the desire to remain on active service with the Regular Navy had been returned to inactive duty. The peace program prescribed for naval aviation calls for not more than six heavier-than-air patrol stations within the coastal limits of the United States. In order to comply with this requirement, all stations have been demobilized, with the following exceptions: Chatham, Rockaway, Cape May, Anacostia, Hampton Roads, Pensacola, Coco Solo, San Diego.

The Naval Aircraft Factory at Philadelphia is retained in operation, and a station for the erection and operation of rigids has been undertaken at Lakehurst, N. J.

Aviation to-day.—As a result of war activities naval aviation is now supplied with a Reserve Flying Corps, comprising approximately 3,500 officers and 9,600 men, of which 2,500 of the officers are qualified naval aviators and 1,000 officers are aviation technicians and administrators. The enlisted personnel of the reserve corps has been trained for aviation duties and as a class are believed to be as expert aircraft mechanics as the present state of the science can develop.

The material side of naval aviation has vastly progressed, and this branch of the service is now supplied with flying boats capable of long-distance patrols, carrying heavy armament and numerous personnel. The size of machines is constantly increasing, as is also their reliability and sea and air worthiness. The department has under consideration units of double the size of the NC type, which will have a vastly improved performance.

Relieved of the pressure of war, it has been possible since the signing of the armistice to give thought to the development of naval aviation as an adjunct to

fleet operations, and it is realized that the improvements in aircraft during the recent war have so increased their value for naval purposes that a nation which in time of peace does not develop a naval air service proportionate to its war needs, both in personnel and material, will be at a serious, perhaps a fatal, disadvantage in a war against an enemy who has made the expenditures and devoted the energy required for such development. Not only is the efficiency of our Air Service dependent upon the possession of such material and personnel but the efficiency of practically every type of naval craft is likewise affected. Aviation is an arm of the naval service without which the other arms of the Navy can not develop anywhere near their maximum of efficiency.

With this in view a fleet air detachment has been assigned to both the Atlantic and Pacific Fleets, consisting of twin-motored flying boats and kite balloons. These detachments have operated with the fleet with considerable success, in conjunction with the tenders operating with them. In addition, experimental work with planes carried upon the turrets of battleships are being conducted. The *Jupiter*, a collier, is being converted as a carrier for planes and will permit flying craft to be conveyed in considerable numbers with the fleet.

During the World War we were compelled to spend vast sums in developing our aviation. As already stated, we spent money freely in order to gain a position which would not only be abreast of that reached in the air by our hard pressed Allies, but would have secured for us a leading role had hostilities been continued.

To-day adequate aviation facilities for the purpose of continuing practical experiments in operations simulating those of war are necessities. It is the operator who supplied the vision which the mechanic makes practical. Without adequate facilities to operate under conditions simulating war, naval aviation can not advance.

No phase of naval warfare requires more practical experience than does aeronautics. Theories are of no value until tested by experience. Experience alone can develop satisfactory aircraft and the devices or arrangements necessary for handling planes on board ships. The strategical and the tactical employment of aircraft with ships are yet to be made entirely practical through practical application of theories.

We have done much during the war but there is much yet to be done. With the limitations imposed by and incidental to the sudden change from war to peace, it can be said that since the close of hostilities we have accomplished a very good start with the funds which Congress has deemed wise to allocate for the purposes of naval aviation. It is hoped that with the sums which are to be appropriated by this Congress further progress may be attained in creating an air service capable of operating effectively with the fleet on the high sea or in an overseas campaign.

Appropriations.

Fiscal years.	Departmental supervision.	Appropriation act.	Amount.
1912.....	Bureau of Navigation.....	Naval appropriation act.....	\$25,000
1913.....	do.....	do.....	10,000
1914.....	do.....	do.....	10,000
1915.....	do.....	do.....	10,000
1916.....	Chief of Naval Operations.....	Naval appropriation act (unobligated balances).	1,000,000
1917.....	do.....	Naval appropriation act.....	3,500,000
1917-18.....	do.....	do.....	5,133,000
1917-18.....	do.....	Emergency appropriation.....	3,000,000
1917-18.....	do.....	Urgent deficiency.....	11,000,000
1918.....	do.....	Naval appropriation act.....	45,000,000
1919.....	do.....	do.....	220,383,119
1920.....	do.....	do.....	25,000,000
			314,071,119

NOTE.—By act of February 25, 1919, \$97,000,000 aviation appropriations for the years 1917-18; 1918 and 1919 was withdrawn, and, therefore, that amount should be deducted from the total appropriated for those years, leaving a balance of \$217,071,119.

The unobligated balances from 1911 to December 31, 1919, at present amount to nearly \$8,500,000. There will probably be a considerable fund in addition that will be returned to the Treasury after liquidation proceedings are finished.

Up to 1916 the only appropriations for aviation were made to the Bureau of Navigation. Up to that time the various bureaus of the Navy Department expended money for aircraft just as money was expended for surface craft and naval units.

The strength of a fleet can no longer be measured alone by the number of battleships. Aircraft, light cruisers, destroyer leaders, destroyers, submarines, mine layers, and other auxiliaries are as necessary to the strength of the fleet as artillery, aircraft, tanks, chemical warfare service, and other auxiliaries are to the strength of an army. The battleships to-day are the infantry of the sea; battleships can no more fight alone than can the infantry on land.

It is believed that the aviation arm has now found its place as a permanent auxiliary to the fleet and has demonstrated to the older branches of the service its future possibilities as an indispensable adjunct.

WORK OF THE OFFICE OF NAVAL INTELLIGENCE.

Secretary DANIELS. The office of of Naval Intelligence performed a work of the utmost value not only during the war but in the years preceding it, gathering, through our naval attachés and other officers in Europe, all the information that could be obtained regarding war developments in Europe, those of Germany and Austria, as well as of the Allies, and continually furnished a mass of reports that give us information for use in developing our plans and policies. Its officers and agents, stationed at various points, were active in discovering and thwarting enemy activities, both in this country and abroad, and while we can not enter into details regarding specific cases, the following memorandum gives an excellent idea of the scope of its work, which was performed with notable energy and efficiency.

I would like to put that in the record. It is a very illuminating story of one of the most important services of the Navy during the war.

The CHAIRMAN. Very well.

(The memorandum referred to is here printed in full in the record, as follows:)

One of the first steps in the war activities of the Office of Naval Intelligence was the organization in every naval district of an intelligence service similar, in many respects, to the central organization. This was immediately begun and was created to promote and coordinate the work of the central organization. An aide for information was appointed to direct the work in each district and funds were apportioned to these aides. The importance of this may be realized when it is stated that at the outbreak of the European war a greater part of our foreign commerce was handled by persons who were not citizens of the United States.

It was well known in this country that the Germans had established a wonderful spy system through which Berlin was being informed of the activities in every branch of industry in this country. It is probable that there was not a manufacturing establishment here that did not have at least one paid agent of the German Government who kept that Government informed of everything that was going on. There is no doubt that even in the departments at Washington German agents were at work at all times. It was supposed that bases of some sort for the supplying of gasoline and supplies to German submarines were being secretly established at different points along the coast of Mexico, Central and South America. Before the United States entered the war Germans were allowed to enter this country freely.

The day the United States declared war the activities of the Office of Naval Intelligence were increased tremendously, for it became the duty of this office to not only continue its peace-time activities, but to form an investigation section to seek out the Germans who had been active in propaganda in favor of Germany, who were attempting to prevent by sabotage, by explosions, by fomenting strikes, and by many other means the manufacture of munitions of war; who were making bombs for the purpose of blowing up our ships and factories; and in general to prevent the activities of Germans and German sympathizers from continuing their nefarious pursuits.

This meant the expanding of the office in Washington tremendously, the reorganization of its personnel and extending its activities to every country of the globe, as well as covering every State of the Union.

The United States had, by direction of the Secretary of the Navy, been divided into 15 naval districts. Those districts covered the whole coast of the United States—the Atlantic, Pacific, Gulf, Great Lakes, in addition to Hawaii and the Canal Zone. The naval activities of each district were in charge of an officer known as the commandant. In each district there was an aid for information who acted at first directly under the Director of Naval Intelligence at Washington. Each district was further subdivided into sections in each of which was appointed a section aid for information who reported directly to the district aid for information. The activities of these aids, especially in our large ports of entry such as Boston, New York, Philadelphia, Baltimore, Norfolk, etc., were tremendous. The work handled by these district organizations was outlined by the central organization and included the following: First, subjects to be investigated by the aid for information:

(a) *Navy personnel*.—(1) Apprehension of deserters and stragglers; investigations and surveillance of enlisted men reported by the commanding officers of all United States ships; reported imposters appearing in the uniform of the Navy.

(2) Suspects attempting to enlist in the United States Navy, or United States Naval Reserve Force.

(3) Collusion between firms holding Navy contracts and enlisted men.

(4) Cooperation with other naval districts in the investigation of cases reported by them which fall within the field covered by the aid for information.

(b) *Navy-yard employees*.—(1) Investigation and surveillance of navy-yard suspects.

(2) Investigation of reported pro-Germanism of navy-yard employees.

(3) Thefts from the navy yard.

(4) Cases referred by commandant relating to the Naval Establishment.

(5) Investigation of alleged alien or enemy agitation connected with the navy yard.

(c) *Miscellaneous investigations*.—(1) All cases referred by the mail censorship bureau.

(2) Investigations of suspicious individuals reported in the vicinity of navy piers, wharves, docks, warehouses, etc.

(3) Investigation of applicants for pilot license.

(4) Investigation of cases involving radio and radio apparatus.

(5) Investigation of suspicious fires on piers, docks, and wharves under the Navy Department.

(6) Protection of shipyards within the naval district doing Navy work, and of naval vessels building or repairing within those shipyards.

(7) Protection of operation, product, and personnel of plants manufacturing munitions or other material for the Navy, other than those covered by the branch office of naval intelligence.

(8) Investigation of enemy agents and sympathizers and civilians concerning any activities inimical to the interests of the Navy.

(9) Investigation of addresses of such cables as may be referred to the aid for information by the cable censor.

In order to carry on these investigations a large number of men were enlisted whose qualifications showed them to be particularly fitted for this sort of work.

The investigation department of each aid for information was by no means the only work done by them, for an equally important job was the ship inspection. In order to keep out undesirable aliens a system of ship inspection was inaugurated in every port of entry in the United States by which the passengers and crew of each ship entering a port from a neutral country were lined up on deck, carefully inspected to determine whether their passports and papers were in due form and technically correct. The ship itself was examined from truck to keel to discover any unauthorized German literature to be used as propaganda or other contraband material that might be on board. This inspection was very strict indeed and it is believed resulted in preventing Germany from communicating with agents in this and other American countries. Every ship sailing from a neutral country was reported by our naval attaché abroad and any suspicious person aboard was also reported. Upon arriving in the United States such person was given a very rigid examination, and if anything suspicious was found on his person or among his baggage he was taken into custody by the Department of Justice and either deported or interned. This ship, passenger, and crew inspection work was conducted always in cooperation and in company with customs inspectors of each port of entry.

In addition to the inspection of incoming ships, a very important part of the duties of the aid for information was the inspection of outgoing ships to make sure that large amounts of material that could be used on German submarines were not being smuggled in the ship's stores or in other unauthorized places.

When leaving American ports neutral vessels were accustomed to carry an enormous quantity of spare machinery and electrical parts, many times more than was necessary. Up to this time these spare parts were usually taken on board in this country, but seldom entered on their manifests, and when the vessel returned to port they were found missing. In fact, many of these articles were unnecessary; for example, boiler tubes, condenser tubes, and boiler zincs went into Germany in large quantities by such channels.

Radio apparatus was frequently purchased by vessels while lying in port and installed on board in the guise of repairs. By this method large amounts of apparatus was taken on board and connected up to the existing apparatus in the radio room, and when the vessels returned the new apparatus was found to be missing.

Next to the supplies mentioned above, the most important article taken out in quantity was lubricating oil. Ships constantly left for a trip to Holland with enough oil to take them around the world, yet on their return they had barely enough to get into port.

The necessity of such inspection can be seen when the examination of the steamship *Ryndam* showed she had on board 750,000 pounds of copper in bars, strips, cakes, and wire; 250,000 pounds of brass in tubes, sheets, etc., and 1,700 barrels of lubricating oil and some 70,000 feet of aerial wire—silicon bronze; none of which articles appeared on the ship's manifest.

And officers for ship-inspection work were of vital importance, and as officers for these duties were not available, certain men were selected owing to their particular ability to carry out this work. These men were enlisted and commissioned.

It became possible to check up a number of these ship's stores through ship chandlers who cooperated with this organization, and as a result many masters of merchant vessels were fined for making fraudulent manifests. As a result of this it was determined to immediately start an investigation of the character and source of shipment and also investigations in regard to enemy goods in storage.

The Office of Naval Intelligence first made a list of all materials, covering agricultural or manufactured, in storage at the port of New York. It then became the business of the office to be informed as to all facts of a suspicious nature relating to firms, individuals, and companies doing business under contract with the Navy Department, as to firms whose business may be in contravention of the trading-with-the-enemy act; as to alien suspects and their activities; as to the apprehending of deserters and absconders; as to evidences of German propaganda; as to information relating to the enemy; enemy sympathizers; or suspected spies taking passage on vessels sailing to or from the United States; and as to suspicious ships and shipments.

Examination of the men employed on the docks as stevedores, etc., were infrequent, and in many instances they had never been made, with the result that the danger from alien enemies was almost at the maximum. Arrangements were made whereby all men employed on docks were required to have identification cards, and such means of identification were then demanded by all military guards placed upon the piers. By doing so a great source of danger was immediately eliminated.

It was arranged that after a vessel arrived at her pier there was a constant and actual Government control. In no instance was anyone allowed to leave or board the vessel before the search and muster were completed. This resulted in a continual custody from the moment of her arrival until the vessel departed, and the discharge of cargoes was accordingly, in reality, done under Government supervision. To obtain the greatest possible efficiency, specialization became necessary, and for that reason searches and musters on all vessels were made by bodies of men trained for that purpose. In several cases where special searches were necessary dock plans of the vessel were obtained from the surveyors' department.

All loose mail on incoming vessels was censored, and this included the large amounts of mail sent by consignees. In this manner there was closed an easy channel of communication between the enemy and its agents in this country.

The Navy Department also took charge of the development of camouflage work, which included the investigation of suggestions as to schemes of camou-

flage painting and the issuance of definite instructions as to the type of camouflage to be adopted, and arrangements were made with the Emergency Fleet Corporation of the Shipping Board for the practical application of camouflage to vessels not under the control of the Navy Department. To make the reports of camouflaged vessels more complete, photographs were taken showing the port and starboard view and a view of the forward side of the bridge of all vessels coming into the ports within the various districts, whether camouflaged or not. These photographs approached 5 by 7 inch size. The information collected by this division was turned over to the Bureau of Construction and Repair, which had charge of the developing of camouflage work in the Navy Department.

In May, 1918, the first German submarine appeared off of our coast. The aid for information of the fourth naval district was the first to report the attempted sinking of the American schooner *Edna*, which was found water-logged off Winter Quarter Light Ship on May 26, 1918, and towed into Philadelphia. Examination by the aid for information in person disclosed the presence on board of a detonating device, which was used in blowing a hole below the water line in order to sink her. She failed to sink, however, being loaded with case oil, which kept her on the surface of the water after becoming water-logged. From that time on section aids for information along our coast kept a very sharp lookout for submarines reported by wireless from ships at sea, which reports were made by telephone direct to the Office of Naval Intelligence. All submarines that came to this country were thus reported and their tracks on the high seas charted.

GENERAL INSPECTION OF PLANTS.

One of the principal activities of the branch offices of Naval Intelligence and of the aids for information in those districts where were no branch offices located was the inspection of plants having naval contracts. The first step taken by the Office of Naval Intelligence for the adequate protection of plants engaged in Navy work was the adoption and insertion in all Navy contracts of the following clause:

"In addition to the ordinary precautions heretofore adopted by the contractor for the guarding and protection of its plants and work, the contractor shall provide such additional watchmen and devices for the Navy Department against espionage, acts of war, and of enemy aliens as may be required by the Secretary of the Navy. The contractor shall, when required, report to the Secretary of the Navy the citizenship, country of birth, or alien status of any and all of his employees. When required by the Secretary of the Navy, he shall refuse to employ, or if already employed forthwith discharge from employment and exclude from his works, any person or persons designated by the Secretary of the Navy as undesirable for employment on work for the Navy Department."

A circular letter signed by the Secretary of the Navy was then sent to each contractor by the office, together with a set of printed questionnaire forms outlining information required by the office in pursuance of the above clause.

The forms were returned by the contractors in duplicate, each form describing the extent and nature of the plant's contracts with the Navy Department, containing a census of employees, from the standpoint of nationality, and describing in a general way the precautionary measures adopted by the company for the protection of its plant and the materials in process of manufacture for the Navy Department, together with a number of miscellaneous facts to enable the Office of Naval Intelligence to determine as promptly as possible the relative importance of the various plants.

Approximately 5,000 of these questionnaires were received from original contractors, their subsidiary and subcontractor plants.

The duplicates of these questionnaire forms were forwarded at once to branch offices and aids for information, with the request that they be carefully analyzed and that the plants be inspected in order of their importance.

Accordingly there are now on file in the Office of Naval Intelligence reports covering practically all of the plants that were engaged upon work for the Navy Department, giving detailed information under the following headings which will suggest the nature of the data compiled:

(a) *Official personnel*.—Which includes not only a list of firm's officers, but report of any investigations which have been deemed advisable as to their loyalty.

(b) *Contracts*.—Which includes a statement of the progress made on Navy contracts, a summary of companies' contracts with other departments of the Government, delays and the reasons therefor, etc.

(c) *Employees*.—Which includes a general statement as to the predominant nationality of employees, the method followed by the company in selecting employees, reports of investigations of suspicious individual, and detailed statements in regard to alien enemies employed, nature of employment, opportunities for sabotage, past records, etc.

(d) *Precautionary measures*.—Which describe the pass systems, the number and caliber of watchmen, barricades, use of flood lights, etc.

(e) *Fire precautions*.—Which includes a brief statement of the construction of buildings from a fire-protection standpoint and a brief description of the fire-fighting apparatus observed.

(f) *Labor*.—Which includes a brief statement of the companies' experience with its employees as regards to strikes, shutdowns, sabotage, and other disorders of serious nature, causes, persons involved, and likelihood of further disorders.

Thus the Plant Division of the Office of Naval Intelligence was in a position to keep and did keep the Secretary of the Navy and the bureau chiefs concerned informed of the progress; whether the proper and necessary lighting facilities were installed and maintained for the exterior lighting of plants at night; whether proper fencing was provided to completely surround the plant, and whether a proper and adequate system of identification of employees was established by means of passes and badges and, in fact, that every precaution was taken to prevent sabotage or injury to the plants by German sympathizers which would in any way reduce production.

Many of the plants having naval contracts were found to be poorly equipped for the prevention of fire, and many plants had little or no facilities for fighting a fire should one start.

This led the Office of Naval Intelligence to take the question of fire prevention up with the Treasury Department and the War Industries Board, which led, eventually, to the forming of the fire-prevention section of the War Industries Board, of which the Director of Naval Intelligence was a member of the advisory council. This fire-prevention section was furnished by the Office of Naval Intelligence with lists of plants with which the Navy Department had contracts involving more than \$100,000 and which, from the result by inspection of its agents, seemed to have little or no apparatus for the prevention or the fighting of fire. The fire-prevention committee immediately dispatched expert inspectors for a careful examination of these plants and, as a result of these inspections, made recommendations covering what was required to place them in a proper condition to prevent their destruction by fire. During the few months of its operation the fire-prevention section secured the installation of sprinkler systems, construction of fire walls, and introduced better methods of housekeeping in hundreds of plants which the Navy depended upon for its vital needs during the war.

In general, the Plant Section of the Office of Naval Intelligence confined their recommendations to physical improvements in the plants and to the enforcement of law regarding employment of alien enemies, together with the investigation of prospective employees. In the vast majority of plants engaged upon Navy work, very extensive and needful improvements were made, involving, in the aggregate, hundreds of thousands of dollars, which expense, with a single exception, was met by the contractors themselves. It is further believed that the frank discussion of these subjects between the contractors and representatives of the Office of Naval Intelligence resulted in awakening the minds of the contractors to a more thorough appreciation of the necessity of taking extensive precautions for the protection of their plants and in the selection of employees. Very loose methods had been the rule in the majority of plants prior to these improvements. As an example, in one plant alone over 90 alien enemies were removed and turned over to the Department of Justice for such disposition as it saw fit. Many of the other plants had alien enemies removed and interned for the duration of the war. It is only fair to the contractors to state that they cooperated most cordially with the representatives of the Office of Naval Intelligence and were willing and anxious to place their plants in a condition which prevented sabotage and destruction by bombs and fire. This resulted in very few explosions and very little damage being done by fire or sabotage in any of the plants having Navy contracts, all of which were under the watchful eye of representatives of the Office of Naval Intelligence.

Shortly after Mr. John Lord O'Brian, of Buffalo, was appointed by the Attorney General as special assistant in his office to handle all cases arising as the result directly of the war, weekly meetings were held every Wednesday in his office in the Department of Justice. At these conferences were the Director of Military Intelligence, Director of Naval Intelligence, a representative of the Department of Labor, a representative of the State Department, and the officer in charge of the Bureau of Investigations, Department of Justice. At these conferences all matters pertaining to the activities of alien enemies, passport regulations, labor troubles caused by aliens, etc., were discussed. The passport regulations were so changed by a proclamation of the President that the consuls in all foreign ports, before viséing the passports of persons desiring to sail for the United States were required to submit the names of such persons to the naval and military attachés in the country from which they were about to sail. In case the naval attaché considered a person distinctly undesirable he would inform the consul at the port of embarkation, who refused to visé the passport. In this way hundreds of undesirable men and women were prevented from reaching the United States, and without question Germany was cut off from communicating with her agents in this country by means of a messenger service. If, by chance, an undesirable person obtained a visé, and such fact became known to the naval attaché, he was instructed to cable the Office of Naval Intelligence a description of the person, the steamer upon which he sailed, the port of destination, and what he knew concerning him. The Office of Naval Intelligence transmitted this information, with what additional information it had in its files concerning this person, to the aide for information in the district in which the port of arrival was located and upon his arrival this particular passenger was given a searching overhauling, which resulted frequently in his being refused admittance, or, if admitted, he was interned for the duration of the war.

It can readily be seen, therefore, that it was with difficulty Germany was able to communicate by messenger with any of her loyal citizens in the United States.

As an additional precaution, as soon as ships from European neutral countries arrived in our ports a naval port guard was placed aboard and remained on board to prevent the landing and desertion of the crew. It was the duty of this guard to search every person who came aboard and who went ashore, to have a certain supervision over the cargo, and to generally look out for the safety of the ship.

A similar examination of the crews was made of every vessel departing to foreign ports to prevent smuggling of letters, etc. It can be said as a result of these precautions that smuggling and letter carrying was reduced to a minimum. It has been stated that the price of a smuggled letter rose from \$5 per letter at the time of our entry into the war to \$100 per letter at the close of the war, with a few takers at the latter figure. All work in connection with passenger and crew control was rendered possible only by the hearty and cordial cooperation with the Department of State. The names of applicants for all United States passports, both resident in the United States and in foreign countries, were submitted to the State Department, who in turn submitted them to the Office of Naval Intelligence, Military Intelligence, Department of Justice, and, in special trade matters, to the War Trade Intelligence Bureau. The total number of names passed through the Office of Naval Intelligence files was approximately 1,000 a day. The Office of Naval Intelligence kept the State Department informed of undesirable applicants for passports, visées, or alien permits, whose names were furnished to it by domestic agents or by naval attachés.

All information collected by the Office of Naval Intelligence in "trading with the enemy" was disseminated to the War Trade Board, Department of Commerce; and in some cases to the Military Intelligence Division and to the Department of State. This information was largely obtained from the naval attachés, notably in Argentina, Brazil, Holland, and Scandinavia. In some cases foreign firms suspected of trading with the enemy and having branches in the United States were investigated at the request of the War Trade Board. These investigations were ably conducted by the branch offices, particularly the office in New York. Intimate relations were established by the Office of Naval Intelligence with the Bureau of War Trade Intelligence, which thoroughly cooperated with the Navy in holding up undesirable exports and imports and exercising their power wherever power of the Navy Department was lacking. The Office of Naval Intelligence received weekly from the War Trade Board 100 copies of supplements to the Enemy Trading List, together with additions and changes to the list, and rules and regulations of the War Trade Board. These were

distributed to all the branch offices of Naval Intelligence and to all the naval attachés abroad.

Before our entry into the war the Office of Naval Intelligence was confined to collecting information from abroad, principally concerning the material of foreign navies, changes in ship design, the expansion of foreign navies, and the advances made in the designs of new ships, etc. This information was received, filed, and placed at the disposal of any officer who desired to look up the technical questions concerning foreign ships. As soon as the war was declared in April, 1917, a section of the Office of Naval Intelligence was instructed to compile this information and to disseminate it not only to bureaus of the Navy Department, which were particularly interested, but to all our forces afloat, at home, and abroad. These reports soon increased in number so that it became necessary to mimeograph the compilations made from them, and to distribute them to the fleet and others concerned. First, we got out a mimeograph compilation once a month; then twice a month, and later these got so bulky that it was necessary to print them; and by the end of the war the mailing list contained 450 names.

In addition to this semimonthly compilation (which was confidential), other reports were printed which were of a more secret nature, and were disseminated to a very limited number of officers. In this way commander in chiefs, force commanders, and division commanders were kept informed at all times of the activity of the fleets of the allied powers; of the enemy fleet; of the ships sunk, and of their total tonnage; with the number of enemy submarines in the Atlantic and the Mediterranean; with the tracks they had made, and, in general, all efforts made by the allied and associate powers to end the war. Not only were the naval activities reported on, but many reports covering the activities of the armies in the field on all fronts were printed and disseminated. The section of the Office of Naval Intelligence, which got out these compilations, deserves the greatest possible credit for keeping the Navy at large—ashore and afloat—in close touch with the operations of the fleets of all the combatants.

When the armistice came there were 306 reservists in the Office of Naval Intelligence additional to the 18 civil-service clerks and messengers serving at the beginning of the war, or a total of 324. This force will be reduced on July 1, 1920, to 18 of the statutory roll and 24 former reservists, or a total of 42.

The above-named activities of the Office of Naval Intelligence are those which were added as war activities, and which had previously not been recognized as being legitimate functions of that office.

The Office of Naval Intelligence was created in March, 1882, for the purpose of collecting information from abroad concerning the navies of other countries, and more especially for the collection of technical information in improving the design of ships of our own Navy. The information thus collected, therefore, concerned principally the personnel and material of foreign navies, changes in ship design, building programs, war resources, means of communications, port facilities, foreign merchant marine, data as to our own merchant ships in relation to fitness for war purposes, trade routes, and geographical information of importance in war. This information, received through naval attachés and other sources, is filed and placed at the disposal of Government officials who desire information on technical questions regarding foreign navies. In addition to furnishing information on file in compliance with numerous demands created by the war, the Office of Naval Intelligence, as a war measure, got out a mimeograph compilation once a month for general dissemination of technical information of interest on account of the war.

It was soon found necessary to get this publication out twice a month, and in addition to this semimonthly compilation, which was confidential, other reports were printed, of a more secret nature, and disseminated to commanders in chief, force commanders and division commanders, concerning the activities of fleets of the allied powers; of enemy ships; of merchant tonnage sunk; numbers of enemy submarines; with tracks they had made from latest reports; and in general, the progress of allied naval operations against the enemy. In other words, the peace-time activities of the Office of Naval Intelligence were expanded into the widest and most effective dissemination of war intelligence possible.

It is interesting to note that the naval appropriation bill for next year restricts the activities of the Office of Naval Intelligence in the matter of collecting information at home, and places the office on its original footing prior to the war.

Secretary DANIELS. Mr. Chairman, I will bring this up this afternoon, but just at this place I would like to have in the record a very brief statement of the splendid service rendered at the Azores. Admiral Dunn was in charge there, and in the early part of the war, as you remember, the Azores gave the Allies very great trouble. If it had been selected or obtained by the Germans as a naval base, they could have used it as a base from which to create great havoc in American shipping and American troop transports, and one of the things we were most earnest about was securing the Azores as a base for America, and I wish to put in the record a brief statement as to the service there. I will bring it to you this afternoon, and I would like to have it appear here, so as to be in sequence.

The CHAIRMAN. At this point in the record?

Secretary DANIELS. Yes.

The CHAIRMAN. Very well.

Secretary DANIELS. I would like to bring it up this afternoon and have it put in at this point. It is more fitting that it should be here.

(The matter submitted by Secretary Daniels in regard to the Azores is here printed in full in the record as follows:)

IMPORTANT BASE ESTABLISHED IN THE AZORES, UNDER COMMAND OF
ADMIRAL DUNN.

The Azores, the "half-way stopping place between Europe and America," was one of the most vital points, strategically, between this country and Europe. Had the Germans succeeded in establishing a U-boat base there, or in utilizing those islands for supplying or refueling submarines, they could have seriously menaced our troop and cargo transportation and trans-Atlantic lines of communication. There was serious fear that they might do this, as is indicated by Admiral Sims's dispatch of July 13 and his letter of July 30, 1917, in which he informed us that England had sent a mystery ship and two submarines to the Azores, and it was hoped that the United States would do the same, and said: "The advisability of the United States sending one of the older battleships with perhaps two or three auxiliary craft to the Azores to prevent the use of these islands as a base during the coming winter should be considered." That these fears were well grounded is shown by the fact, stated by Admiral Sims in his testimony, that the Germans sent out the big submarine *Deutschland* and "this ship began her cruise in the summer of 1917 in the vicinity of the Azores"; that other U-boats were operating there and that the town of Ponta Delgada was bombarded by a submarine on July 4, 1917. This U-boat was driven off by the fire of the U. S. S. *Orion*, which happened to be in port at the time.

Yet, though he himself suggested sending certain vessels there, Admiral Sims now cites the dispatch of the few ships we did send, temporarily to scout around the islands in search of U-boats and possible submarine bases, as an instance of diversion of forces from the critical area. As a matter of fact, it was important to prevent any possibility that the Germans might use the Azores as a base, or refuel and supply their submarines there. Furthermore, it was necessary to drive away any submarines that might be in that vicinity or in the islands anywhere nearby, from which they might attack merchant or supply ships, or naval craft.

By consent and with the cooperation of the Portuguese Government we later established a United States naval base at Ponta Delgada, which proved of the greatest value, especially for our submarine chasers and other small craft sent to Europe, which could there refuel, secure provisions, and have repairs made, as we established a repair station and maintained a repair ship. Our forces there rescued and towed to port a number of merchant vessels which broke down in the vicinity, some being towed into port from considerable distances.

There is no question whatever as to the wisdom of establishing a base at Azores, and sending or maintaining forces there. I wish to pay tribute to the excellent work performed by Admiral Dunn, the able and energetic officer who was in command of this base and whose services were of the utmost value. His duties were ably and conscientiously performed, and had no small part in our success in sending safely across the Atlantic the large number of submarine chasers and other small craft which were dispatched to Europe.

I submit a brief memorandum from Admiral Dunn regarding our work in the Azores:

(The memorandum referred to is here printed in the record as follows:)

MEMORANDUM FOR THE SECRETARY OF THE NAVY CONCERNING THE ADVANCE BASE AT THE AZORES UNDER COMMAND OF REAR ADMIRAL H. O. DUNN.

In the latter part of November, 1917, I was detached from the command of the Fifth Division, Atlantic Fleet, and ordered to Washington, temporary duty, at Operations, to prepare an expedition to establish an advance base at Ponta Delgada, Azores.

After considerable delay owing to settling the diplomatic questions involved and preparing the material and personnel for the expedition, I embarked on the U. S. S. *Hancock* with a complete advance base outfit including a detachment of Marines with aviation outfit, two 7-inch guns, to be mounted at Ponta Delgada, to defend the harbor, wire net to protect the entrance of the harbor against torpedoes and a complete number of officers to establish headquarters. The expedition, accompanied by two destroyers, arrived in the Azores on January 19, 1918, and immediately set to work to establish a base.

The occupation of the Azores, in my mind, was of great strategic value from the mere fact that had it been in possession of the enemy it would have formed an ideal base for submarines, and as our convoy routes passed both north and south of the islands an enemy base would have been a very serious obstacle for the successful transport across the ocean of troops and supplies.

The base proved of great value in regard to the passage across the ocean of all our small vessels. All the convoys of the 110 footers and the tugs and small vessels were obliged to stop at the Azores for fuel, provisions, and generally all were in need of repairs.

To this end I had established a repair station and used a repair ship, which was of great value in carrying on the work of assistance both to the naval vessels and the merchant marine.

It constantly happened, during the stormy winter weather, that merchant vessels would break down in the vicinity of the islands, and I would send out sea tugs to tow them in and repair them and send them on their way. In several instances the merchant vessels were rescued at distances of 400 to 500 miles from the islands.

I had at my disposal several of the K submarines, which operated as well as possible under the conditions, but they were, of course, constantly in need of repairs, as their type was not equal to the possible enemies they might encounter. They required a great deal of attention and overhauling to keep them going, but they did as well as could be expected under the circumstances.

A part of the time I had a few destroyers, but as they were needed in European waters I could not keep them long enough to be of any advantage in patrolling the war zone around the islands.

The aeroplanes were old type and of little use, as their limit of flight was two hours, and they had no means of communication from the aeroplane to the shore.

The relations with the Portuguese authorities were very cordial, a high commissioner, who was a general in the Portuguese Army, was sent to the islands to represent his Government and settle all questions which came up without reference to the Lisbon Government. This high commissioner, Gen. Machado, was of very great assistance to me and was loyal in his devotion to the cause, and I held him in very high esteem.

In addition a hospital was established ashore, which was of great value to the personnel, both stationary and those that passed through the island. During the epidemic the islands suffered greatly from the influenza, and we were in a position to lend great assistance to the natives at that time, for which they were profoundly grateful.

In the latter part of my stay at the islands I had the use of two mine planters, which were used both for dragging for mines and for heavy sea work in rescuing vessels.

On the 4th of July, 1917, the town of Ponta Delgada was shelled by a German submarine, and it created great consternation on the island. Fortunately, at the time, one of our colliers was in the harbor having its rudder repaired, and the stern of the ship, which mounted a gun, was elevated so as to be above the breakwater. This ship, the *Orion*, opened fire on the German U-boat and drove her away. It is a curious fact that on the anniversary of this date, July 4, 1918, all the people in the island were very much disturbed, as they expected another attack on the same day.

During my occupation of the base, from January 19, 1918, to April 19, 1919, no enemy submarine appeared off the island, although several operated in the war zone around the islands and sank some shipping. No contact was made by our force with enemy U-boats.

H. O. DUNN,
Rear Admiral, United States Navy.

INCREASE IN PERSONNEL—THE WONDERFUL EXPANSION AND TRAINING OF THE AMERICAN NAVY HAS NO PARALLEL IN ANY NAVY IN ANY WAY.

Secretary DANIELS. Mr. Chairman and gentlemen, what the Navy did in enlisting and enrolling and training young men for the naval service during the World War has had no parallel in any navy either in the last or any previous war. This monumental service would have been impossible without the act signed by the President on August 29, 1916, which made provision for an increase of the enlisted personnel from 57,000 to 97,000 including all classes in a possible emergency. It would have been impossible also but for the action of the President declaring an "emergency" on March 24, 1917, and for the passage of the Naval Reserve act in 1914 as amended and enlarged by the act of August 29, 1916. This legislation recommended by the Secretary of the Navy and enacted by a Congress, which made the best provision for the Navy in all the history of the Republic, gave opportunity and authority before war was declared for the Navy to expand its personnel until when the armistice was signed the Navy contained 217,276 Regulars and 271,571 Reserve enlisted men, total 488,847 men and 10,489 regular officers and 20,705 Reserve officers, total 31,194 officers; total officers and men 520,041. The British Navy, much larger than ours, in fighting ships, and engaged longer in the war, was on November 11, 1918, composed of 36,243 officers and 378,919 men, total 415,162 or 100,000 less than in the American Navy.

There never was a minute from April 6, 1917, to November 11, 1918, when a ship was ready to sail that the officers and men were not ready to man the ship, and this was true not only of fighting naval

craft but also of hundreds of ships carrying troops and supplies and merchant ships, a service which nobody supposed the Navy would be called upon to perform. It is equally true that the necessity of furnishing 19,652 men as armed guards on merchant ships had not been foreseen, and yet that extra dangerous services, begun before we entered the war, was performed by naval personnel in a way that testified to the resources of the Navy to meet any demand made upon it.

Not less to its credit of attracting hundreds of thousands of splendid young men to the Navy was the expedition and efficiency with which they were trained. This was largely due to their own zeal and willingness and capacity, but the chief credit is due to the wise and well considered policies formulated by the Navy Department and the initiative and versatility of the officers and men charged with the duty of rapidly converting civilian youth into capable seamen and officers. Their training on ships, at stations, and in schools enabled bright and enterprising youths to qualify as officers in a time so short as to surprise the oldest officers in the Navy. Sir Eric Geddes, First Lord of the British Admiralty (a position which corresponds to that of Secretary of the Navy of the United States) was deeply impressed with the training of these young men, and upon a visit to America during the war, said:

The dauntless determination which the United States has displayed in creating a large body of seamen out of landsmen is one of the most striking accomplishments of the war. Had it not been effectively done one would have thought it impossible, and words fail me to express our admiration of this feat undertaken and accomplished by your Navy Department of which Mr. Daniels is the civic chief.

There was not a moment from the time war was declared when the Navy did not have a rush of young men to enlist in the regular Navy or to enroll in the reserves. The problem was one of training, and recruiting stations were thronged with patriotic youths. They came in as a matter of fact more rapidly than they were needed, and the old battleships and all available barracks were utilized for their training, and new barracks were rapidly provided and new ships chartered to furnish facilities for training the new recruits. By the time of the armistice there were over 500,000, of which more than half were on shore duty or under training when the war came to a close.

In view of this big enlistment it is interesting to look back to see what were the expectations of naval officers of the number of men that would be needed in case of war. In 1914 it was proposed by some officers to change the general policy of the Navy. It had long been the practice to keep only the latest ships in commission, the others in reserve, and the oldest ones in ordinary with a skeleton crew. In 1914, within 13 months after coming into office, for the first time in years I had, by offering a chance for education and promotion, secured the full enlistment authorized by law. The highest suggestion of increase then was 20,000 additional, which in the light of increase from 57,000 to 523,000 now seems a very small increase. On May 17, 1916, the General Board stated that in case of war "the total number for which provision is to be made at present, for war in the Atlantic, is 100,000."

That was the conception of the General Board on May 17, 1916, in case of war in the Atlantic, 100,000 men. We actually had 500,000

men; in other words, five times as many as that great body of naval statesmen supposed we would need.

In August, 1916, I recommended, and Congress granted, 97,000, or just 3,000 less than the 100,000 desired by the General Board. In July, 1915, the General Board had recommended an increase of 11,000 men—that was in July, 1915, bear in mind—and that the ships in reserve should have 50 per cent of the complement instead of smaller percentage, often only 25 per cent, which had prevailed in previous years. Nobody in the Navy in 1915, or 1916, dreamed that in any war so many as 500,000 men would be needed. They thought then in terms of the character of service which it was supposed the Navy would be called upon to render, and not in terms of the larger and more varied duties which the Navy was called upon in the World War to undertake.

It is interesting to contrast the more than half a million men in the World War with the number who had served in the previous wars, as contained in the following statement from the Chief of the Bureau of Navigation. [Reading:]

PERSONNEL OF NAVY IN ALL WARS.

Following are tables submitted in accordance with your letter of to-day, giving the total number of enlisted men in the Navy during the several wars, and the total number of men who have served in the Navy since the organization of the Navy Department.

Enlisted men serving during war periods in United States Navy:

War of 1812.....	20,000
Mexican War.....	7,500
Civil War.....	121,000
Spanish-American War.....	23,000
World War.....	551,736

Total men having naval service since organization of Navy Department:

During War of 1812.....	20,000
During Mexican War.....	7,500
Estimated men having naval but no war service before 1885.....	200,000
During Civil War.....	121,000
Since January 1, 1885.....	850,801

Total..... 1,199,301

There are no individual records before January 1, 1885.

Those inclined to be critical of the number of men in the Navy before the war should read the statement of Admiral Plunkett before the committee when he said:

I might say right now for the benefit of Senator Trammell that no officer in my recollection—

I wish to emphasize this—

no officer in my recollection ever dreamed or ever thought of having a personnel sufficient to man everything carried on the Navy list and have it ready for battle at the outbreak of the war. All we figured on was that the ships which were turned over to us to operate, and which we called our fleet, should be fully manned and should be ready for war, that is all.

When war came the Navy Department had all "the ships turned over to operate, which was called our fleet," fully manned, and as needed we furnished 20,000 men for the armed guard, 22,000 men for the troop transport service, cargoes, and men enough to man every other ship put in commission and all other naval activities and sent

nearly 50,000 for shore duty across the seas, most of whom were in the aviation, a number much larger than most forward-looking men in the Navy had ever contemplated.

In the summer of 1916 definite war plans were provided by the General Board to guide our action in the event of war with Germany. In addition to the five-year building program of 156 fighting ships, proposed in compliance with the letter of the Secretary of the Navy, for a large and continuous program, to the General Board on July 30, 1915, answering an oral order of the Secretary to express its opinion on personnel needed, the General Board made this report:

The General Board recommends that legislation be sought for the fiscal year 1917 which will authorize an active personnel, officers and enlisted force, capable of:

(a) Keeping in full commission all battleships under 15 years of age from date of authorization, all destroyers and submarines under 12 years from date of authorization, half of the cruisers, all gunboats, and all necessary auxiliaries that go with the active fleet.

(b) Providing partial complements for all other ships in the Navy that would be placed in active use in time of war.

(c) Providing the necessary personnel for training and for shore stations.

The partial crews mentioned under (b) should be 50 per cent of the full war complement for battleships, cruisers, destroyers, and submarines. They should be permanent in order that they may be kept thoroughly trained and the ships maintained as efficient units of the fleet, ready for immediate service in case of an emergency by simply filling the complements. For other ships the partial crews should be adequate for their upkeep.

This does not provide sufficient personnel for war. With full complements for all ships of the Navy ready for service in 1917 and a minimum number required at shore stations, 74,700 men will be needed. In addition, upon the outbreak of war the personnel of the Navy must be greatly expanded to provide for aviation coast defense districts, patrol craft, and other auxiliary duties of every sort, as well as for a reserve of men under training to replace casualties. The Coast Guard, Naval Militia, and Naval Reserve will be far from sufficient to meet these demands. The Navy is the first line of defense to the country. For peace requirements in the fiscal year 1917 the general board regards as inadequate any smaller force than 67,000 men in the Regular Navy.

Following the recommendations of the general board in the fall of 1915 I asked Congress for an increase in the enlisted strength of the Navy, and in June, 1916, when it was certain that the great three-year program of 156 ships, to cost \$500,000,000, would find favor with Congress, I addressed the following letter to the chairman of the United States Senate Naval Affairs Committee:

MY DEAR MR. CHAIRMAN: Owing to the immediate and unexpected need for enlisted men to keep in commission and to place in commission ships which are ordinarily kept in reserve with reduced crews, and to fully man all such ships, I recommend that there be incorporated in the pending naval appropriation bill a provision establishing the enlisted strength of the Navy as 74,700 men—

Recalling the facts, Mr. Chairman, that the joint board recommended 67,000—

and authorizing the President to increase the number to 87,000 when in his judgment it may become necessary to place the country in a complete state of preparedness.

The increase to 74,700 from the 54,000 now enlisted is the number recommended by the general board as being required to fully man all ships ready for service in 1917 with a minimum number at the shore stations. It has been the policy for many years to keep a large number of ships in ordinary or in reserve with reduced crews. Formerly the number of men assigned to ships in reserve was 25 to 33½ per cent. Last year I increased the number to 40 per cent. In its last annual report the general board recommended that it

be increased to 50 per cent. If the recommendation is acted upon, as soon as the number authorized is enlisted, it will be possible to keep these ships fully commissioned. Later, when there are no pressing exigencies, the older ships could be reduced to a 50 per cent crew if advisable, and the new ones coming in could be fully commissioned. The large number of enlisted men who would come into the service would, when their term of enlistment expires, constitute an ideal addition to our reserves—a need long felt but never yet provided. In my report of last December—

I beg you to bear this in mind—

I stated that in addition to the number of enlisted men asked for at the time, it would be necessary to further increase the enlistment at the next session of Congress. In view of the present necessity for keeping all ships in active duty, not then foreseen, I am asking that the increase contemplated for next year be authorized in the pending bill, and therefore recommend the additions set forth in this letter.

In addition—

And asking for this number of men, 87,000, which with the necessary additions for the Hospital Corps and other men made it 97,000—

In addition, upon the outbreak of war the Navy would be greatly expanded, and more men would be required for aviation, naval coast defense, patrol craft, and other auxiliary duties of various kinds, as well as to provide for men under training to replace casualties.

Very respectfully,

JOSEPHUS DANIELS,
Secretary of the Navy.

HON. B. R. TILLMAN,
*Chairman Committee on Naval Affairs,
United States Senate, Washington, D. C.*

On date of July 25, 1916, following my letter of June 20, asking for the increase to 87,000 plus 6,000 apprentices and 4,000 in the Hospital Corps, I addressed a letter to the Chairman of the Senate Naval Affairs Committee in regard to increasing the enlisted strength of the Navy, showing how the increase was to be distributed to make the Navy more efficient, in order to carry out the policies recommended by the General Board. In that letter I said:

It is the intention of the Navy Department to fully man all naval ships which are ordinarily kept in reserve, or ordinary, with reduced crews, and to provide trained crews for the new vessels under construction and which will be commissioned between now and the latter part of 1917.

The present strength of the enlisted personnel of the Navy is approximately 54,000, and the number recommended by the General Board is 74,000, which figure includes men and apprentices under training. This increase of 20,700 and approximately 2,600 Hospital Corpsmen (which will be computed extra to the regular complement in case the Senate's bill becomes a law), a total increase of 23,000, will be applied as follows:

(a) This increase of 23,000 men was to be applied as follows: For ships in reserve or out of commission, 16,000 men.

(b) For vessels under construction, 4,300 men.

(c) Training stations, trade schools, navy yards, hospitals, special duty, etc., 2,000 men.

Congress was favorable to the recommendations contained in the above letter, voted the increase, and thereby enabled the Navy when war came to have ample authority to increase the regular Navy to the 87,000 men named in the bill. As a matter of fact, this 87,000 men was not the actual number authorized, for under general legislation we could also enlist in addition 6,000 apprentices, which made a total of 93,000, and in addition to the number, Congress allowed a

Hospital Corps of 3½ per cent of the total strength of the Navy and Marine Corps. This gave an addition of 4,000 men, bringing the grand total of enlisted men in the Regular Navy, authorized by the act of 1916, in case of emergency, up to 97,000 men.

Illustrations of the fact that the Bureau of Navigation as late as October, 1916, believed that the number of men deemed necessary in 1921—now, bear that in mind—as an illustration of the fact that the Bureau of Navigation as late as October, 1916, believed that the number of men deemed necessary in 1921 was to be only 93,957, with an increase of 5 to 10 per cent recruiting and training, I append the official statement made to the Secretary of the Navy by the chief of the Bureau of Navigation at that time.

Personnel.—Report of the Chief of the Bureau of Navigation (Rear Admiral L. C. Palmer), October 10, 1916:

From: Chief of Bureau of Navigation.

To: The Secretary of the Navy.

Subject: Annual report for fiscal year 1916, with additions to October 1, 1916.

Appreciation of the immediate needs of the service has been shown to be nationwide, and in the recent naval appropriation bill Congress carried out the wishes of the people by enacting legislation of far-reaching importance.

The most far-reaching and important of any legislation ever enacted in our country or in any country, for that matter.

This includes a provision for an immediate authorized enlisted strength of 68,700 men and 6,000 apprentice seamen, a total of 74,700. Preparation for the future was not neglected, and the same bill authorized the President, in emergency, to increase the authorized enlisted strength to 87,000. It is evident that Congress considered the present needs of the naval service in deciding on this number at this time, as the usual additional allowance of apprentice seamen, 6,000, would provide for an actual enlisted strength of the Regular Navy of 93,000.

It is interesting to note that the above figure closely approximates the bureau's preliminary estimate of 93,957, which provides for the number of enlisted men (including average sick allowance) necessary to fill the billets in 1921—

Four or five years ahead—

the year of completion of almost all of the present program. From 5 to 10 per cent should be added to this for increased complements and working surplus, and the authorized enlisted strength should be increased to this number in time for the necessary recruiting and training.

In addition, Congress considered it necessary to have a large number of reserves at comparatively small expense during peace time, and provided the machinery for enrolling and instructing this force. Its value can not be overestimated, as there are thousands of important billets on reserve ships, on merchant vessels to be taken over, and in connection with naval activities afloat and ashore, which require additional trained personnel in war time.

This letter is exactly correct, except that it should have added "That Congress should amend the bill passed in 1914 in such a way as the Secretary had pointed out for securing more reserves, because this began in the year 1914—the whole reserve system."

The CHAIRMAN. How was that pointed out?

Secretary DANIELS. To the Naval Affairs Committee.

The CHAIRMAN. Does that appear in the record of the Naval Affairs Committee?

Secretary DANIELS. Oh, yes; in the hearings of the Naval Affairs Committee. They will show all that I recommended; a reserve—

The CHAIRMAN. In the hearings of the Naval Affairs Committee of what date?

Secretary DANIELS. I mean the Naval Affairs Committee of the House. I will get the date. Further on you will see, Mr. Chairman, that I have that very well set out here.

The preliminary estimate for 1921 for enlisted reserves of all classes, including retired personnel and a considerable force of naval militia, is 43,978, and steps have been taken to enroll this force.

The preliminary estimate for 1921 was only 41,000 men. As a matter of fact, we had enrolled 200,000 men in 1917 and 1918.

As has been shown Congress authorized on August 29, 1916, the Navy to enlist 73,000 men, and I fully expected when the bill became a law that by the end of 1916 the Bureau of Navigation would have enlisted the full quota. As a matter of fact, the number of enlistments of regulars was so small that the net gain per month was disappointing. And this was in a month, August, 1915, when Admiral Palmer was Chief of the Bureau of Navigation.

The net gains were as follows in the fall of 1916: 188 in September, 571 in October, 853 in November, and 1,017 in December. The number of enlistments for the months are shown in the following table:

Enlisted personnel.

Month.	Number of enlistments.	Total loss.	Net increase.
1916.			
September.....	1,793	1,605	188
October.....	2,192	1,621	571
November.....	2,257	1,404	853
December.....	2,572	1,555	1,017
1917.			
January.....	3,512	1,299	2,212

We therefore had a shortage of 20,000 men in the regular service out of the 73,000 authorized in August, 1916, enlisted when the new year of 1917 dawned. This lack of regulars was disappointing and shows that it was not until later that the young men were ready to enlist in the Navy in large numbers. The department kept recruiting stations open, offered advantages of education and chances of promotion as it had done in 1914, when the quota was filled for the first time in several years. The lack of success by the Bureau of Navigation, charged with recruiting, was doubtless due to the demand in factories, which were all running on full time, where men were paid so well that until war was imminent they did not respond to an appeal to enlist in the Navy. Writing in my annual report made December 1, 1916, of the increase in the personnel since I became Secretary of the Navy in 1913 and of the difficulty of securing rapid enlistments after the passage of the act of August, 1916, I said (see p. 46, Annual Report):

On the 5th of March, 1913, the enlisted personnel of the Navy was 4,153 short of the authorized complement of 51,500. After careful study the problem was solved of why young Americans did not fill up the quota. An opportunity for education and opening new doors for promotion attracted young men who had not enlisted until these new advantages of service in the Navy were afforded them. The youth of the country responded to these increased opportunities in the Navy, and during the past three years the complement has

been several times in excess and a waiting list created, while the number of recruits enlisted in this time reached a total of 6,831.

The department was gratified over the response of the young men of America to the inducements to a Navy career. The department, however, is not blinded to the fact that the total authorized increases in the complement since the passage of the new bill, amounting to over 26,000 men in the Navy and 5,034 men in the Marine Corps, impose a difficult and exacting recruiting task. The difficulties are accentuated by the unprecedented demand for labor throughout the country, particularly in the industrial centers, together with the increasing activities of other recruiting services. Since the passage of the act of August 29, 2,524 new men have been enlisted, for a part of the time the inflow averaging about 1,000 men a month.

In order to obtain the large increase, the Navy recruiting service has been extended to reach every section of the United States.

Though the naval recruiting service had been extended to reach every portion of the United States, on April 1, 1917, a few days before war was declared, we had only 62,607 men of the regular authorized number of 74,700. We therefore, Mr. Chairman, had a shortage of 20,000 men in the regular service. I beg you to bear this in mind. We had only 62,607 men of the regular authorized number of 74,700. The President, on March 24, 1917, had issued his Executive order, which authorized a total number (including all classes in the regular Navy) of 97,000—or, to be exact, 96,982.

In his testimony before the committee, Capt. Palmer, who became Chief of the Bureau of Navigation after the act of August 29, 1916, had passed Congress, said that the President signed the Executive order increasing the number to 87,000 plus apprentices and Hospital Corps, May 6, 1917. His memory served him false in this as in several other instances. Now, bear in mind, he said the President signed this order May 6, 1917. His memory served him false in this as in several other instances. Here is the Executive order of the President directing the emergency increase of men both in the Regular Navy and in the Marine Corps:

EXECUTIVE ORDER.

By virtue of the authority vested in the President by the act approved August 29, 1916, entitled "An act making appropriations for the naval service for the fiscal year ending June 30, 1917, and for other purposes," it is hereby directed that the authorized enlisted strength of the Navy be increased to 87,000 men.

WOODROW WILSON.

THE WHITE HOUSE, March 24, 1917.

And so, Mr. Chairman, instead of signing this order in May, 1917, the year after the war was declared by Congress, the President signed this order March 24, 1917, before Congress had declared war.

Here is another Executive order:

EXECUTIVE ORDER.

By virtue of the authority vested in the President by the act approved August 29, 1916, entitled "An act making appropriations for the naval service for the fiscal year ending June 30, 1917, and for other purposes," it is hereby directed that the enlisted strength of the Marine Corps be increased to 17,400 men.

WOODROW WILSON.

THE WHITE HOUSE, March 26, 1917.

That was before the war began. I wish to call your attention to that, and it was before Congress had acted.

It will thus be seen that instead of delaying until May 6 to authorize the emergency increase the President, with the foresight and promptness which marked all his actions before and during the war, issued his order increasing the enlisted force on March 24, 1917, at a time when the Bureau of Navigation was short something like 15,000 men, authorized by Congress in August, 1916. In other words, though the Bureau of Navigation had been directed on August 29, 1916, to enlist the full strength of the Regular Navy, it had been unable to do so up to April 1, 1917. The President's Executive order gave power to the Navy to enlist on March 24, 33,000 additional men.

At once I directed the Bureau of Navigation to start an active and energetic campaign to secure the authorized strength of the Regular Navy and solicited the cooperation of the press and all other patriotic agencies to secure the needed 35,000 men in the Regular Navy. On March 25 I sent the following telegram to the editor of every daily paper in the United States:

WASHINGTON, D. C., *March 25, 1917.*

The President has signed an Executive order directing that the authorized enlisted strength of the Navy be increased to 87,000. He was authorized by Congress in case of emergency to direct such increase in enlistment. New ships and ships in reserve are being fully commissioned as rapidly as possible, and the need is imperative for a larger enlistment to man them. There has been a net increase of over 6,500 in enlistment since Congress recently authorized an increase, but many more are needed and needed now.

That was March 25, 1917, before Congress had declared war, in writing to these editors, relying upon their patriotism and zeal, I asked this question:

Will you not emphasize this need by giving special prominence on the first page of your paper to the President's order and also by making an editorial appeal for new recruits for the Navy?

The Navy offers exceptional advantages to young men of stuff and ambition to serve in the first line for national defenses. In this emergency you have the opportunity and the privilege of performing this public service, and I am confidently appealing to you for your cordial and helpful cooperation.

JOSEPHUS DANIELS.

That telegram was printed conspicuously in most of the papers the next morning. Quite a number of the papers printed editorials calling upon the young men of the country to enlist in the first line of defense. The department began a vigorous whirlwind campaign; meetings were held in many cities, and by May 1 the enlistments had increased to 87,076, and before June 1 the full 97,000 had been enlisted, and the procession of patriotic, enthusiastic young men of America to enlist in the Navy was so large that I asked Congress to give authority and appropriations for a further increase. In compliance with my recommendation the Congress on May 22, 1917, temporarily increased the enlisted strength of the Navy to 150,000, and all during the war I kept in close touch with Congress which promptly approved the steady increase which from time to time the larger service required of the Navy made necessary.

On July 1, 1918, upon my recommendation, Congress authorized as the permanent strength of the Navy 137,835, and the temporary strength to 229,485, and increased the temporary strength of the

Marine Corps to 75,000. At this time (July 1, 1918) we had 206,950 regulars in the Navy, and the number increased to the maximum number of 218,457 on October 1, 1918. In addition to the 218,457 regulars on that date the number of reserves was 264,342, making a total of 482,799 enlisted and enrolled men in the Navy, exclusive of officers, and men and officers in the Marine Corps. If they are included the Navy in October, 1918, was composed of over 600,000 men. If they are included, Mr. Chairman, and if you will include the Marine Corps, which, of course, is an integral part of the Navy, the Navy on October 1, 1918, was composed of over 600,000 men, nearly 200,000 more than the British Navy.

The following table shows the steady increase in both the regular Navy and the reserves from April 1, 1917, until January 1, 1919. This table gives the figures showing—and I wish to call attention to the fact that although August 29, 1916, authorized to enlist over 20,000 more men, we were unable to get, until April 1, over 62,000 men, and up to January, 1916, we were 20,000 short. I carry the table on down, giving the regulars and reserves and the total up to the 1st of January, 1919—456,154.

The table referred to is here printed into the record as follows:

Total in Navy each month. Enlisted personnel, 1917–1918.

	Allowed by law. ¹	Regulars in service.	Reserves.	Total.
Apr. 1, 1917.....	96,982	62,667	8,079	70,746
May 1, 1917.....	96,982	87,076	24,450	111,526
June 1, 1917.....	162,466	109,010	38,064	147,074
July 1, 1917.....	162,466	128,666	46,319	174,855
Aug. 1, 1917.....	162,466	137,374	64,824	192,196
Sept. 1, 1917.....	162,466	142,005	59,011	201,016
Oct. 1, 1917.....	162,466	144,030	61,406	205,636
Nov. 1, 1917.....	162,466	147,327	64,994	212,321
Dec. 1, 1917.....	162,466	153,104	71,538	224,642
Jan. 1, 1918.....	162,466	177,348	90,267	267,616
Feb. 1, 1918.....	.....	188,180	88,715	276,895
Mar. 1, 1918.....	.....	191,035	92,586	283,621
Apr. 1, 1918.....	.....	194,185	101,520	295,705
May 1, 1918.....	.....	198,390	120,959	319,349
June 1, 1918.....	.....	202,419	163,201	365,620
July 1, 1918.....	.....	206,950	213,414	420,364
Aug. 1, 1918.....	.....	211,599	253,971	465,570
Sept. 1, 1918.....	.....	218,223	263,679	481,902
Oct. 1, 1918.....	.....	218,457	264,342	482,799
Nov. 1, 1918.....	.....	217,276	271,571	488,847
Dec. 1, 1918.....	.....	215,672	269,006	484,678
Jan. 1, 1919.....	.....	210,365	245,789	456,154

¹ This allowed strength includes the hospital corps (3½ per cent of allowed strength of the Navy and Marine Corps).

Secretary DANIELS. The above tables show the net number in the service on the dates given below (it does not show losses by death and discharge and otherwise), but this does not do full justice to the great personnel work of the department during the war. Below is appended a table showing the total number enrolled and enlisted in the Navy each month from August, 1916, to December, 1918:

Enlisted personnel enrolled and enlisted during each month from August, 1916, to December, 1918.

	Regular.	Reserve.	Total.
1916.			
August.....		3	3
September.....	1,793	27	1,820
October.....	2,192	224	2,416
November.....	2,257	310	2,567
December.....	2,572	313	2,885
1917.			
January.....	3,512	326	3,838
February.....	3,359	1,347	4,706
March.....	4,893	5,678	10,571
April.....	25,103	16,909	42,012
May.....	23,929	13,832	37,761
June.....	19,617	8,400	28,017
July.....	12,700	8,618	21,318
August.....	6,898	4,259	11,157
September.....	4,725	2,447	7,172
October.....	5,775	3,715	9,490
November.....	7,749	6,652	14,401
December.....	26,577	18,876	45,453
1918.			
January.....	13,232	5,063	18,295
February.....	5,359	5,514	10,873
March.....	5,505	11,078	16,583
April.....	6,499	20,020	26,519
May.....	6,114	44,368	50,482
June.....	6,553	52,384	58,937
July.....	6,569	43,663	50,232
August.....	8,947	13,983	22,930
September.....	2,062	4,197	6,259
October.....	1,325	11,539	12,864
November.....	851	1,443	2,294
December.....	2,488	197	2,685

The mission of the Navy in the World War must be considered with reference to all questions of personnel. Was the number 100,000 recommended by the General Board, 93,000 by the Chief of Bureau of Navigation in October, 1916, and 97,000 authorized by the act of August 29, 1916, as contemplated in 1916 in the plans for a war with Germany, adequate, and was reasonable foresight shown by the board, the bureau, the department, and Congress in view of the problem that presented itself at that time?

In 1916 we had certain definite and matured plans for war with Germany. It was believed that 100,000 men in round numbers would enable the Navy to carry out its mission in such a war. We did not, Mr. Chairman, then expect the Navy to be called upon to furnish 20,000 men for the armed guard, 42,161 on shore duty abroad, 29,175 men in the naval overseas transportation service, 21,817 in the naval transports for the Army, 7,272 to man 296 subchasers, 18,453 men to man 889 district vessels, and many other duties never contemplated for a naval war. The following table shows how the personnel of the Navy was employed on November 11, 1918.

Enlisted personnel afloat Nov. 11, 1918, exclusive of N. O. T. S.

Type.	Number of ships.	Number of men.	Type.	Number of ships.	Number of men.
Battleship force 1.....	24	21,278	Ships on detached service.....	9	1,000
Battleship force 2.....	14	18,372	Ships on special duty.....	18	4,273
1 fleet tender (yacht).....	1	75	Submarine chasers.....	296	7,272
Cruiser force.....	26	16,815	Eagle boats.....	3	201
American patrol detachment.....	13	3,653	Submarine tenders.....	13	2,753
Patrol force.....	58	7,448	Destroyer force tenders.....	7	3,785
Mine force.....	15	4,850	Transport force.....	42	21,817
Pacific Fleet.....	10	2,826	District vessels.....	889	18,453
Atlantic Fleet.....	18	2,415	Mine sweepers.....	17	707
Train.....	22	3,345	Canadian lighters and trawlers.....	22	440
Destroyer force.....	129	14,849			
Submarine.....	82	2,520	Total.....		160,567

In addition to naval vessels.

Total aboard naval vessels.....	160,567
Naval overseas transportation service.....	29,175
Armed guard.....	11,101
Port guard.....	4,000
Foreign service on shore.....	42,161

Total 247,004

The total number of enlisted men in the Navy on November 11, 1918, was as follows:

Ashore.....	260,603
Afloat and foreign service on shore.....	247,004

Total 507,607

That was on the day the armistice was signed.

To arrive at the proper conclusion, the following number of men should be subtracted from the above total, for the reason that the duty being performed by these men was not of the kind contemplated to be a part of the Navy's work as assumed in 1916 or previous, or, as a matter of fact, until after the very outbreak of the war in 1917.

The following list shows the number of men to be subtracted from above total afloat, because they were in a service different from that which had been contemplated prior to 1917:

	Ships.	Men.
Mine force.....	15	4,850
Submarine chasers.....	296	7,272
Eagle boats.....	3	201
Transport force.....	42	21,817
District vessels.....	889	18,453
Naval overseas transport service.....		29,175
Armed guard.....		11,101
Port guard.....		4,000
Foreign service on shore.....		42,161
Total.....		139,030

It was never expected that anything like 260,603 men would be on shore in this country. Most of them, in fact, were in training to meet the demand of the Shipping Board for 250,000 men, a service never contemplated that would be expected of the Navy. That number, therefore, we had enlisted for a service not naval, in any real sense, though the Navy undertook it and performed it along with many other new and unexpected demands. All these duties made demands upon naval personnel never contemplated in any plans or studies or estimates, or suggested by any naval officer in the entire service.

If we deduct the 139,030 on duties not in the plans, from the 247,000 men afloat, we have 107,974 men in the Navy on November 11 engaged in duties of a strictly naval character in keeping with the service required for carrying the mission of the Navy in the war as foreseen by the General Board and all the naval experts in 1916. This number compared with the General Board's estimate of 100,000 shows a difference of only 7,974 men, and the General Board and the department contemplated that all in excess of 100,000 would be provided by reserves. This was sound reasoning judged by all previous wars and all proposed plans. And, as a matter of fact, the naval reserve law enacted in 1914 and amended in the act of August 29, 1916, made provision not only for the small increase needed for strictly naval duties, but gave such wide latitude that we were enabled to enroll reserves for every strictly naval and collateral need.

REVIEWING ANCIENT HISTORY—THE ATTEMPT TO MAKE THE PERSONNEL ACTION OF 1914 BEAR UPON THE LESSONS OF THE WORLD WAR PROVES ABORTIVE.

I think it was Admiral Fiske and perhaps some others who have come before you complaining that I did not ask for as large increase in the enlisted personnel in 1914 as would have kept all the ships in full commission. It had never been the policy of the Navy Department to keep all the ships in full commission, and if I erred in not urging Congress at that time to give a large authorized increase in personnel, there are two reasons which had great weight in the course pursued:

1. I followed the policy that had prevailed for years of asking for only sufficient men to keep the later ships (those of 15 years or less of service) in full commission, a policy which had been often and fully discussed before the Naval Affairs Committee. Congress made authorization for men with the knowledge that the latest fighting ships would have the full complement fixed by the Bureau of Navigation, a certain number of older ships would be kept in reserve with a small crew, generally about 25 per cent, and others "in ordinary" with only sufficient personnel to keep the ships in condition. I may have followed an unwise precedent in asking for only enough men to keep up the policy established and carried out for years. Moreover, my immediate predecessor, although authorized to enlist 51,500 men, could secure only 47,357.

2. I asked for the number of men which the Bureau of Navigation recommended for a peace complement, based upon the principles stated by the General Board in that year, that of "keeping in full commission all battleships under 15 years of age," etc. On November 14, 1914, I addressed the following official communication to the Chief of the Bureau of Navigation:

WASHINGTON, November 18, 1914.

From: The Secretary of the Navy.
 To: The Bureau of Navigation, Navy Department.
 Subject: Increase of the Navy; building program and personnel, 1916.
 Reference: General Board's letter No. 420-2 of November 17, 1914.

In its report on personnel, in section 43, paragraph (a), the General Board makes the following recommendation:

"That legislation be asked for providing an active personnel, officers and enlisted force, capable of keeping in full commission all battleships under 15 years of age from date of authorization, half of the cruisers and all gunboats, and all

the necessary auxiliaries that go with the active fleet; and of furnishing nucleus crews for all ships in the Navy that would be used in time of war, and the necessary men for the training and other shore stations."

Now, as to the chiefs of bureaus:

The department desires a report from the bureau as to personnel available for carrying out the recommendations of the General Board above quoted, together with such comment and recommendation on the subject as the bureau sees fit to make.

JOSEPHUS DANIELS.

The report of the Bureau of Navigation in reply to my inquiry made an elaborate analysis of the personnel required to man the ships in accordance with the principle laid down by the General Board, closing its report with this statement:

After due consideration * * * the bureau sees no necessity for asking for an increase of enlisted personnel this year; but believes it will be necessary to do so next year, if the recommendation of the General Board is approved.

Following this statement from the Bureau of Navigation, the bureau charged with supplying all personnel, I made no recommendation for increase in 1914, but in 1915 asked for an increase, and in the next bill that became a law secured a war increase to 97,000—a much larger number than had hitherto been asked for by any Secretary of the Navy, indeed twice as many as on March 5, 1913, when I became Secretary of the Navy.

The full text of the reply to my letter of November 18, 1914, to the Chief of the Bureau of Navigation is as follows:

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., November 18, 1914.

From: Chief of Bureau of Navigation.

To: The Secretary of the Navy.

Subject: Increase of Navy, etc.

Reference: Department's letter, etc., quoting recommendations of General Board.

1. The bureau has carefully considered the subject of personnel in connection with the General Board's recommendations regarding the organization of the fleet as expressed in section 43, paragraph (a), of the above reference, and respectfully submits as follows the requirements in personnel to put into effect the General Board's recommendation:

CLASS A.—Active fleet to be in full commission at all times in training for war.

	Number of ships.	Line officers.	Enlisted men.
Battleships.....	21	630	17,425
Destroyers.....	35	140	2,274
Destroyer tenders.....	3	14	638
Submarines.....	28	56	539
Submarine tenders.....	6	24	900
Armored cruisers.....	5	150	4,015
Cruisers.....	11	117	3,493
Transport.....	2	12	300
Supply ships.....	3	12	450
Repair ships.....	2	14	460
Ammunition ship.....	1	4	55
Mine depot ships.....	2	18	564
Fleet tugs.....	6		180
Hospital ship.....	1		55
Total.....	126	1,191	31,348

As to fleet tugs, there were no officers there, because we employed practical marine men to manage them.

As to the hospital ship, the officers on that ship were medical officers and not line officers.

CLASS B.—*Gunboats that may be serviceable for cruising, patrol, and other duties in times of peace.*

	Number of ships.	Line officers.	Enlisted men.
Gunboats.....	27	133	3,015
Total for class A and B (all vessels in full commission).....	153	1,324	34,363

CLASS C.—*Vessels of more or less military value to be held in reserve with nucleus crews in time of peace and to be placed in full commission in time of war.*

	Number of ships.	Line officers.	Enlisted men.
Battleships.....	8	40	1,680
Armored cruisers.....	5	25	1,250
Old destroyers.....	16	32	320
Old torpedo boats.....	12	12	120
Old submarines.....	7	7	70
Cruisers.....	10	20	730
Old battleships (ordinary).....	4	8	240
Old monitors (ordinary).....	3	3	180
Total.....	65	146	4,590
Class A, battle fleet.....	126	1,191	31,348
Class B, gunboats.....	27	133	3,015
Total.....	218	1,471	38,963
Flag officers, flotilla commanders, staffs, etc.....		50	
Total line officers.....		1,521	

NOTE.—The above figures show the personnel required for all vessels on the Navy list not in possession of the Naval Militia which, in the opinion of the bureau, may be of possible service in time of peace or war. It will be noted that a number of the vessels in classes B and C are of doubtful value either in peace or war, owing to their age and material condition. However, the bureau has provided personnel for them.

Class D is next:

CLASS D.—*Personnel required to full commission all vessels of class C which are held in reserve with nucleus crews in time of peace.*

	Number of ships.	Line officers.	Enlisted men.
Battleships.....	8	140	3,514
Armored cruisers.....	5	125	2,705
Old destroyers.....	16	32	84
Old torpedo boats.....	12	24	240
Submarines.....	7		
Old battleships.....	4	16	2,184
Cruisers.....	10	90	3,691
Old monitors.....	3	21	420
Total.....	65	512	13,678
Total required in classes A, B, and C.....		1,521	38,953
Grand total.....	218	2,033	52,631
Now in service.....		1,872	52,293
Apparent shortage for war.....		161	338

(Extract from Secretary's report, 1914.)

Now, the Chief of the Bureau of Navigation continues:

While the apparent shortage to commission all serviceable vessels for war is only 161 officers and 338 men, if it is borne in mind that there are many

duties required by both officers and men ashore in time of war that must be provided for from the active personnel in order that the efficiency and effectiveness of the fleet may be maintained.

In regard to officers, the great majority of those now on shore duty would be relieved by retired officers and sent to sea upon the outbreak of war.

That is exactly what did happen.

The bureau has considered the requirements in this particular and believes that a minimum of 160 active line officers should remain ashore in time of war, otherwise the organization would be so disrupted that the efficiency of the fleet would be seriously impaired. In this connection attention is invited to the fact that 135 officers and 3,015 enlisted men have been assigned to gunboats primarily for peace duties. There is no doubt that in time of war these vessels, or many of them, would either be interned in foreign ports or brought home for service on the coast patrol, and manned by the naval militia or other reserve forces.

As a matter of fact, nearly all those ships were manned in time of war by the reserve forces.

This would release their personnel for service with the fighting fleet.

Assuming that two-thirds of the personnel of gunboats were so released, there would in this way become available 90 officers and 2,000 enlisted men.

There are at present serving on surveying ships and on fish commission ships 28 officers and 622 enlisted men. These would also become available for the fleet in time of war, making 90 plus 28 equals 118 officers and 2,000 plus 622 equals 2,622 enlisted men.

The bureau is therefore of the opinion that there exists at the present time a shortage of 161 plus 160 minus 118 equals 203 line officers required to place in full commission all vessels of the Navy serviceable for war purposes.

And I may add, Mr. Chairman, the only place we then had to get officers from was the Naval Academy, and we had secured every officer that academy had graduated.

In estimating the shortage of enlisted men, consideration must be given to the requirements of the service in connection with training stations, tugs, station ships, recruiting, etc., as given in the table below, showing the present distribution of the enlisted personnel in duties other than at sea with the fleet, class E.

CLASS E.

	Men.
40 navy-yard tugs.....	619
Caring for Naval Militia ships.....	108
Station ships, yard craft, etc.....	846
Training stations and trade schools.....	4,075
Recruiting stations.....	375
Radio stations.....	258
Ships building.....	111
Navy yards and shore stations.....	880
Insular force.....	356
General detail.....	750
Prisoners, leave, traveling, etc.....	2,752
Hospitals.....	1,388
Total.....	12,518

In case of war the following numbers can be drawn on from the above and sent to sea:

From item 2.....	108
From item 3.....	300
From item 4.....	3,000
From item 7.....	111
From item 8.....	400
From item 10.....	750
From item 11.....	1,000
Total.....	5,668

Remaining ashore in time of war, 12,518 minus 5,669 equals 6,849 unavailable for sea duty. To this must be added the apparent shortage of enlisted men shown above as 338, making a further apparent shortage of 7,187, from which should be subtracted 2,622, the number gained from gunboats and from surveying and fish commission vessels, making an actual shortage of men to man all vessels serviceable for war purposes of 4,565.

CONCLUSIONS OF THE BUREAU OF NAVIGATION.

From the foregoing figure the bureau concludes that, for purposes of placing in full commission all vessels of the Navy serviceable for war purposes at the present, there is a shortage of 203 line officers and 2,565 enlisted men.

Probable requirements for commissioning new ships within the next year:

	Men.
2 battleships	1,500
6 destroyers	450
10 submarines	200
1 destroyer tender	250
2 submarine tenders	300
Total	2,700

Available during next year to commission new ships—

	Men.
From general detail	750
From ships building	111
Available for enlistment to fill average authorized quota	753
Total	1,614
Required for new ships next year	2,700

Shortage

1,086

Carrying out the plan of retaining in full commission the 21 latest battleships and of maintaining a sufficient number of submarine tenders—

	Men.
2 battleships (Virginia class) would be placed in reserve, thus gaining ..	1,170
2 submarine tenders out of commission, to gain	300
Gain	1,470
Shortage	1,086

Surplus after commissioning all new construction next year

385

After due consideration of the foregoing figures the bureau sees no necessity for asking for an increase of enlisted personnel this year, but believes that it will be necessary to do so next year if the recommendation of the General Board is approved. The question of the shortage of officers is much more urgent than that of enlisted men—

And in the war we found that was true—

as a sufficient number of ex-service men to fill vacancies in war complements can be readily obtained on the outbreak of war. But as the supply of officers is limited to the output of the Naval Academy, it will necessarily be several years before the needs of the service in this respect can be filled if all vessels of the Navy serviceable for war purposes are placed in full commission.

No estimate is made for colliers, as existing law contemplated manning those vessels from other sources than the enlisted personnel of the Navy.

The bureau believes that a naval reserve organized from the honorably discharged enlisted men now in civil life should be created within the next year.

Subject to the foregoing remarks, the bureau concurs in the recommendations of the General Board quoted in the department's letter, and believes that the policy recommended would increase the efficiency of the Navy to a maximum not only in material but in the distribution of the personnel to the best advantage.

VICTOR BLUE.

PERSONNEL SITUATION, 1914.

From May, 1914, the authorized complement for enlisted men of the Navy was completely filled for the first time in several years, and the waiting list of applicants for enlistments had to be established. This was a result of the policies of education and extending the opportunities for enlisted men in the Navy and of giving wider publicity through the country of the Navy's work. On June 30, 1913, the enlisted strength of the Navy was 48,068, and on June 30, 1914, there was 52,667, showing a net gain of 4,612 during the year, a number sufficient to man five dreadnaughts and seven destroyers. There was also a large gain made in reenlistments of trained men during this year, the percentage of reenlistments for the fiscal year 1914 being 57 per cent, while that of 1913 was 65 per cent. During the year ended June 30, 1914, there were 88,943 applicants for enlistment. Of these, only 18,948 were accepted, and of this number 5,168, nearly one-third, had served one or more enlistments in the Navy. The general situation in regard to the enlisted personnel of the Navy and the policies of the department in regard to the personnel is set forth in my annual report of December 1, 1914, pages 24 to 28, from which the following is quoted:

Enlisted men.—It has been the policy of the department to raise the standard of the enlisted personnel by opening the door of opportunity to the worthy, and by weeding out the unworthy, who bring discredit upon the uniform of our sailors. In consequence of this policy, the recruiting officers are enabled to pick and choose among the applicants for enlistment, and a greater percentage of men are reenlisting. When the information is disseminated throughout the country that the position of an enlisted man in the Navy is an honorable one, and that none but those of good character are taken, that every man who enlists has the opportunity of getting an education, without expense to himself or his family; that he has the opportunity of learning a useful trade, and that if he wishes to make the Navy his life work he has the opportunity for advancement through the various grades of petty officer, warrant officer, and commissioned officer to the highest rank in the Navy, it is but natural that young men of the highest type of American manhood will be more and more attracted to the Navy, and that their parents will not only encourage but urge them to enlist. It is not surprising, therefore, that the Navy's authorized complement, which was short for several years, was completely filled in May, 1914; that recruiting had to be suspended in order not to exceed the limit authorized by law; and that a waiting list of applicants for enlistment had to be established. During the fiscal year ended June 30, 1913, the enlisted strength of the Navy reached a total of 48,068, and in the fiscal year ended June 30, 1914, a total of 52,667, showing a net gain of 4,612 men during the year, the number required to man five dreadnaughts and seven destroyers. The percentage of men who, by the character of their discharge, were entitled to reenlist and who reenlisted during the fiscal year of 1913 was 57 per cent. The same for the fiscal year of 1914 was 65 per cent, or a net gain of 8 per cent.

The total number of men serving under reenlistment in 1913 was 16,983. The same for 1914 was 18,640, or a net gain to the Navy of 1,657 experienced men—enough to fully man two of the latest dreadnaughts. During the fiscal year ended June 30, 1914, there were 88,943 applicants for enlistment. Of these, only 18,948 were accepted, or about 1 in 5. Of this number, 5,168 had already served one or more enlistments. These figures indicate the high standard required of recruits, and show that there is no lack of fit men who desire to enlist in the Navy.

In view of this gratifying condition, the department has not found it necessary to retain in the Navy men who are undesirable from any point of view, or men who for various personal reasons desire to sever their connections with it in an honorable status.

* * * * *

Distribution of personnel.—The proper distribution of the personnel is a question which involves economical problems no less important than are the proper expenditures for material requirements. The main object in all considerations is to attain the highest efficiency in the fighting fleet. Since the upbuilding of the modern Navy began many vessels have been added to the Navy list from time to time which, although serviceable for war purposes in their day, are now obsolete for modern warfare. Many of these vessels are now in service for patrol duty in southern waters and elsewhere. In case of war, many of them would be brought home and turned over to the Naval Militia or other reserve force and utilized in the naval-defense districts on the inner line of patrol. Their personnel would be transferred to ships of fighting value.

In time of peace it is desirable to utilize a number of such vessels for patrol and cruising duty, as they are less expensive to maintain than are the vessels designed for the fighting line. Naturally, if all vessels of the Navy, including those referred to are to be kept in full commission in readiness for immediate war with a first-class naval power, many more officers and men would be required than are at present authorized; and there would be an increasing demand from year to year for more men to man the vessels newly constructed. Happily, however, the necessity for such a condition is not apparent, and the finances of the country should not be overburdened to provide for such contingency.

The General Board in its report (printed as an appendix) recommends in section 43, paragraph (a), that personnel be provided for certain classes of ships named in the report. By wisely utilizing the present enlisted personnel all ships of the classes named can be maintained in full commission without addition to the present enlistment and therefore no legislation is needed to carry out their recommendation. This is clearly shown in a report by the Chief of the Bureau of Navigation, which is printed in the appendix on page 64.

It is estimated that more than 90 per cent of the effective fighting power of the Navy is now fully manned. And this percentage will be increased proportionately as new ships are placed in active service by taking the crews from the older ones of little or no fighting value. It is conservative to say that the dreadnaught *Pennsylvania* in fighting value is worth four or five old battleships and an indefinite number of old cruisers, yet she requires no more men than an old battleship or two or three of the old cruisers. In other words, 800 men on the *Pennsylvania* are as effective as 4,000 men on old battleships or as many thousands on old cruisers.

This comparison should be borne in mind if the question arises whether the personnel should be increased at the expense of new construction. Owing to the financial condition of the Treasury, due to war conditions abroad, the department does not ask for more men this year, but intends, by the distribution of the personnel to the best advantage, not only to maintain the effective fighting strength of the Navy, but to increase it proportionately as ships now under construction are completed and added to the Navy list during the next year. Since March, 1914, the department has placed in full commission 12 more vessels of the older type than were deemed necessary a year ago. These were in addition to the vessels newly built and were demanded by the situation in Mexico.

The department was enabled to meet this increased demand on the personnel by recruiting to the authorized strength during the year and thus gained 4,600 more men than were in the service last year.

It is for the Congress to establish the effective strength at which the Navy shall be maintained, both in personnel and in material, and for the department to advise as to the proper balancing of the two. For the reasons given above the department is strongly of the opinion that any retrenchment that may be deemed advisable on account of the financial condition of the Treasury should not be in new construction—

I wish to emphasize that, Mr. Chairman, because at the time the great fight we were having was as to whether we could get two battleships or one—

For the reasons given above the department is strongly of the opinion that any retrenchment that may be deemed advisable on account of the financial condition of the Treasury should not be in new construction, as it has pointed out that, if deemed necessary, the present authorized personnel can take care of the new ships that will be added to the Navy in the next two years by with-

drawing from service old vessels of little or doubtful military value. Later on, however, increase in personnel should keep pace with new construction. In the meantime there will necessarily have to be placed in reserve from time to time vessels which, although not sufficiently up to date for the fighting line, can render good service in coast defense. For the manning of such vessels and of the auxiliaries which would be required with the fleet in time of war a naval reserve is necessary and should be organized and trained at the earliest practicable date.

Mr. Chairman, you have heard retailed here gossip as to some communication I held with the General Board of the Navy in 1914, and I think it was Admiral Fiske who undertook to convey the impression that I had directed the General Board to cut out certain recommendations as to increase of personnel. Such an impression would do injustice to the General Board as well as to me. Not once, but at least twice, or probably three times, I have suggested to the General Board the omission of certain specific recommendation in their reports which would be printed as appendices in my annual reports. In each case I suggested that those particular recommendations not to be published should be contained in communications for the study of the Secretary of the Navy and of Operations. It is manifestly proper that certain of their recommendations should be confidential. Most of them are.

My relations with the General Board have been such as to justify the utmost free and confidential exchange of views. When an ex officio member of the General Board so far forgets his sense of the proprieties as to gossip about those communications he publishes his unfitness for membership on that board and loses his usefulness. In the latter part of 1914 the Bureau of Navigation had succeeded for the first time in years in securing the enlistment authorized by law. My opinion was that the big immediate and difficult duty was to concentrate on getting appropriations for capital and other fighting ships and on teaching and training the more than 50,000 men then enlisted and in keeping that strength up to that number authorized before I should ask an increase. I am frank to say that at that time I did not believe the spirit of the country and Congress was in a mood to vote the money that would be required for a large increase, and also money for two dreadnaughts. An increase of 20,000 men, as I am informed by Supplies and Accounts, would necessitate an additional appropriation of \$16,000,000.

I know it would be extremely difficult to secure the money for large increase in personnel and for the new ships the General Board felt necessary and the number for which I had estimated. As obtaining money for new dreadnaughts was paramount and as Navigation reported we had sufficient men to man the best ships, I did not ask the money for the increase of men, but stressed the fight—and it was a hard one—to secure enough money for the new dreadnaughts and other fighting ships. The recommendation of the General Board as forwarded to me and published as an appendix to my report (see Appendix A, p. 68, Report of the Secretary of the Navy, 1914) was in these words:

43. In view of all that has been herein set forth, the General Board recommends:

(a) That legislation be asked for providing an active personnel, officers, and enlisted force, capable of keeping in full commission all battleships under 15 years of age from date of authorization, all destroyers and submarines under 12 years of age from authorization, half of the cruisers and all gunboats, and all the necessary auxiliaries that go with the active fleet; and of furnish

ing nucleus crews for all ships in the Navy that would be used in time of war, and the necessary men for the training and other shore stations.

(b) That the general policy be adopted of expanding the active personnel with the expansion of the fleet in the proportions indicated in (a).

(c) That immediate steps be taken to form a national naval reserve of trained officers and men, and that this work be pushed until this reserve in connection with the Naval Militia has reached the point where, combined with the active list, it will be possible to fully man the entire fleet with war complements and furnish 10 per cent additional for casualties.

(d) That the Naval Militia be expanded in number and that the department encourage the continuance and improvement of its training to the end that it may still more efficiently serve to reenforce the Regular Service at need

GEORGE DEWEY.

I suggested to the General Board that it stress the building program, lay down the general principles of personnel, omitting any particular number of increases in that year. The Chief of the Bureau of Navigation recommended as complements for the ships enough men in his judgment—and that was his duty prescribed by law—for manning the ships of the Navy in accordance with the recommendation of the General Board.

The CHAIRMAN. Was this suggestion of the board made orally or in writing?

Secretary DANIELS. Orally. The board never then or since intimated to me that my suggestions were not entirely proper, and I published the report at it was forwarded to me. It was never, Mr. Chairman, until I had refused to approve Admiral Fiske's plea to reorganize the Navy Department on plans "made in Germany," patterned after the Von Tirpitz method, and had not yielded to his repeated solicitations to make him commander in chief of the Atlantic Fleet, that this comparatively unimportant confidential talk with the General Board was given currency and an airing in Congress long before the United States entered the World War. Inasmuch as I recommended an increase in 1915 and Congress gave the large increase in August, 1915, larger than the Bureau of Navigation could enlist before we entered the war, the addition of a few thousand men, more or less, in 1914, would have exerted no perceptible influence in a great war in which we enlisted and enrolled more than 500,000 men in the Navy. To hark back to this warmed-over criticism serves only to show that this investigation, limited by the resolution to the part the Navy played in the World War, is regarded by some as merely an opportunity of airing ancient grievances without contributing anything of value to lessons taught by the World War.

Mr. Chairman, I had the fight of my life, working with the majority of the Naval Affairs Committee, led by Chairman Padgett, to secure an appropriation for two battleships in that bill, as the following extract from the Congressional Record, February 5, 1915, page 3438, shows:

Mr. Witherspoon moves to recommit H. R. 20975 to the Committee on Naval Affairs with instructions to forthwith report the bill back to the House with an amendment striking out the word "two" where it occurs in line 4, page 64, and insert the word "one" in place thereof.

The vote stood yeas, 149; nays, 165. Representative Witherspoon, backed by nearly half the Members of the House, made a hard fight to prevent my recommendation, incorporated in the bill by the Naval Affairs Committee, for the two battleships, being adopted. His mo-

tion was to build only one dreadnaught and a change of eight votes would have reduced the building program in that bill to one dreadnaught instead of the two secured. An analysis of the vote shows that both of the leaders of the two parties (Mr. Mann, Republican, and Mr. Underwood, Democrat) voted for recommitting the bill with instructions to substitute "one" for "two." This vote is significant as showing the public attitude and the attitude in Congress at that time, and no discussion now of what might have been done two or three years before we entered the war has any value without the sidelight of public opinion as represented by a large element in Congress in opposing the two-battleship construction urged by the Secretary of the Navy and approved by the President. I believed then, and the General Board agreed, that in comparison with securing the money for two dreadnaughts, everything else was less important. Besides, I recommended in 1915 and actually secured in 1916 all the men needed for the new ships and secured them before the ships were even launched; and never during the World War, with an increase from 342 to over 2,000 vessels to be manned, was a ship ready for service that the department did not have enough men ready to man it. So much for this backstairs gossip about 1914 and like ancient history.

PERSONNEL—COMPLEMENTS OF SHIPS—VARYING VIEWS HELD BY NAVAL OFFICERS AT DIFFERENT TIMES AS TO THE NUMBER OF MEN NEEDED ON A FIGHTING SHIP.

The naval legislation passed on August 29, 1916, stands out beyond all precedence in naval legislation looking toward preparing the Navy for war. It not only provided a continuing program for new construction to follow a definite plan for a period of three years, but it also provided for the personnel to adequately man the ships built and those to be constructed, and made provisions for promptly increasing the personnel to meet the sudden demands of war. To do this it was only necessary for the President to issue an order when the emergency arose to increase the strength by 18,300 men in the Regular Navy, which he issued on March 24, 1917, several days before Congress declared war. This act also provided for an unlimited reserve force under such regulations as to make service in the reserve force of the Navy attractive to thousands of American citizens, and to give adequate personnel for any needed service in war.

The terms of this law were largely a result of the careful study which had been going on for the preceding two years as to the requirements of the Navy in both numbers and types of ships and size of personnel. As a matter of fact, the size of the enlisted personnel of the Navy had been a question much discussed for several years, and it is interesting to note how opinion varied as to the number of men necessary to fight a ship changed as time went on. The wise increases in personnel suggested were largely a result of the development of the gunnery efficiency of the ships and of the methods to control the fire of the guns in battle.

To have a correct understanding of the personnel situation in the Navy it is necessary to study the development of the Navy and particularly its developments in gunnery efficiency during the past 20 years, because the number of men in the Navy has varied not only by the increased construction of ships, but by the establishment of certain principles governing the fighting of the ship in battle and the

experience gained in holding imitation battles in target practice where the principles were put to a test. In 1905 there was appointed the first board of officers to analyze the study the most up-to-date ideas in regard to the principles above mentioned for fighting a ship in battle and to formulate in detail the methods which should be carried out in accomplishing this. This board was called the fire control board, as it directly considered the method of controlling the gun fire of a ship. This board submitted a report outlining methods of training, types of installation, result to be accomplished, etc. Following this report there have been other boards appointed from time to time to study the proposition and to devise policies and methods so as to keep in step with the advances made in the knowledge of the subject and in the development of electrical and mechanical instruments.

This has been one of the biggest subjects in discussion in the Navy during the past 20 years and necessarily there have been numerous and divergent opinions among the officers of the Navy as to what should be the correct action and procedure to be established by the Navy Department. I am giving here a brief summary of the reports of the various boards on fire control of 1905, 1910, 1915, 1916, and 1919. I think this is a very important and an illuminating statement.

A brief summary of the reports of the various boards on fire control is given in the following pages. From the extensive studies made of the subject as indicated it would be evident that no one man's opinion could be taken as paramount to all others even though he might have a very plausible argument to support his position. The desire of the department has been at all times to obtain the best answer under all the circumstances to the problems at issue.

BOARDS ON FIRE CONTROL.

First board ordered by Navy Department November 21, 1905. Report of board submitted under date of December 20, 1905. Report lays down certain general fundamental principles which it thought should govern the organization for manning the battery of a ship and the fire-control stations and for controlling the fire of the ship as a whole. It also gives in detail the stations to be manned and the officers and men required for these stations.

For a mixed caliber having 12-inch gun turrets and 8-inch gun turrets and 7-inch guns of the broadside battery, it was estimated that officers as follows would be required for this type of ship:

Officers of grade of lieutenant and above	15
Junior officers of grade of lieutenant (junior grade) and below	20
Total	35

The number of men required for the entire battery of the ship was not tabulated.

FIRE-CONTROL BOARD OF 1910.

Ordered to convene December 14, 1909. Date of report, January 15, 1910. This board had under consideration reports of boards from the Atlantic Fleet, fire-control board of 1905, and the torpedo-defense board of 1907. This report continued the study of a fire control in accordance with the principles as laid down in 1905, with the neces-

sary revisions and extensions to conform with the type of ship in the Navy at that time and to meet the demand of experience in fire control in the previous five years. A ship of the *Connecticut* class was believed by the board to require 50 officers instead of 35. The stations to be manned were described, but the total number of men per ship was not tabulated.

Report of 1915, Capt. Roy Smith, senior member; appointed May 1, 1915; reported August 11, 1915. The board considered the previous reports of 1905 and 1910 and also the reports of boards convened in the Atlantic Fleet. December 27, 1915, Chief of Naval Operations ordered board, with Capt. C. P. Plunkett as senior member, to review the report from the 1915 board in connection with comments which had been made on this report. The original report of Capt. Smith's board of 1915 was not promulgated.

FIRE-CONTROL BOARD OF 1916.

On February 5, 1916, the department approved the report of 1915, as revised by the officers ordered for this purpose on December 27, 1915. This report further elaborated and brought up to date the comprehensive plan for fighting the battery of a ship as a complete unit. The board's opinion was influenced by previous experience and by development of electrical appliances which could be used for purposes of fire control. In this report it was considered that it is only necessary to completely man at one time half the battery of torpedo defense guns, those on one broadside, the idea being that the attack from a torpedo boat would probably come from one side at a time.

This report commented on the "director firing" system for the ship's battery, and, although it was not able to give a final description of the details of this system, it recommended completing the development of the director firing installation. The board foresaw many valuable possibilities in this system.

The board stated that—

The recommendations of this board are intended to apply fully and completely to all ships designed after the final approval of this report.

For ships under construction it is recommended that as many of these features be adopted as practicable.

When the report of this fire-control board was approved by the department on February 5, 1916, it was considered that the most up-to-date methods of fighting a ship had been determined.

In accordance with the analysis made by this board, it was recommended that further increases in the ships' complements would be necessary, and increases were authorized by the department.

FIRE-CONTROL BOARD OF 1919.

In accordance with orders from the Navy Department of March 19, 1919, a fire-control board, of which Capt. W. D. Leahy was senior member, convened on May 1, 1919, and on June 9, 1919, report of this board was issued to the service. The duty of this board was to "revise and to bring into agreement with the latest developments of naval gunnery the fire-control instructions at present in use." Its conclusions were based on information and experience obtained during the war and was affected by the further development of various electrical mechanical appliances.

In other words, this report of June, 1919, is our latest word from naval officers on the installations necessary and the methods to be used in fighting a ship in battle, and covers every detail with great thoroughness.

From this report it is easy to determine the number of officers and men believed by the board necessary to man every station in battle. A study of this report shows to what extent the vacancies may exist, in time of peace, in what might be called a perfect fighting complement without seriously affecting the military value of the ship. While all the stations are important yet there are a number which do not require extensive training and could be filled by recruits who could become proficient in a very short period of training, the point being that the complete organization is held in effect at all times.

There were certain conditions which developed during the war that made naval officers believe that a greater number of men were required than had been previously contemplated, one of these being the necessity for a greater number of lookouts on duty at all times to watch for a submarine attack. Another was that the experiences in the Battle of Jutland demonstrated the necessity for keeping all the broadside battery guns manned at all times during battle, as it was found that the torpedo attack developed so rapidly that it was not practicable to send the guns' crews from one side of the ship to the other to defend against the attack as had previously been considered satisfactory.

The above outline of the studies made in the development of naval gunnery and methods to be used in battle is given in order to show the vast amount of study which has been given this subject, as it is necessarily the controlling factor in assigning the complement of men to a ship which, as mentioned before, is one of the determining factors in the size of the personnel of the Navy. This also shows why the number of men found necessary when a ship is completed may be more than that contemplated when the ship was designed some three years or more previously.

It was not until 1905 that a definite plan in detail based on sound fundamental principles was worked out to govern the control of the fire of a ship as a whole. Previous to that time attention has been principally concentrated on developing the efficiency of individual turrets or gun crews and sufficient attention had not been given to delivering a full volume of fire from all the guns of a ship at the same time, and it was largely a result of these studies and analyses which caused the adoption of the so-called single caliber ship and this also resulted in the adoption of the design of placing all the turrets on the center line of the ship. This was one of the most progressive steps taken in battleship design in which the American Navy led the world.

The following table will show how the complements for different ships have varied from time to time, and it is interesting to note how these complements have been influenced by the studies made of the subject of fighting the ship. For instance the *Michigan* was laid down in 1906 with a designed complement of 708 men. She was first commissioned in 1910 with an assigned complement of 715 men. This number was undoubtedly governed by the fire control board's report of 1910. After being out of commission she was again placed in commission in 1917 and her prewar complement

was 871, this being influenced by the board's report of 1916 which, previous to the war, was the most comprehensive report that had been made. During the war there were approximately 1,000 men on the *Michigan*. Her present assigned complement is 1,032, this being recommended by the experiences of the war and the fire control board's report of 1919. The allowed complement for peace time is 942. In other words, the *Michigan's* complement changed from 708 when designed, to 942 at the present time, with 1,032 men believed by officers studying the matter necessary for fully manning each battle station.

Now, you take the *New York* and the *Texas*. They are an example. They were sister ships. We had officers of high experience make estimates as to how many men ought to be on the *New York*, for instance. When she was built the naval authorities said 902 men ought to be the complement of the ship. In 1915, they had a fleet board and the fleet board said it ought to be increased to 1,094. The prewar complement was 962. The war complement, fixed in July, 1917, was 1,060. The number on board during the war was 1,300. The present complement is 1,352. The Bureau of Navigation complement is 1,158. And, Mr. Chairman, if you will follow these increases in all these ships we have built, you will find varying differences of opinion on all the ships.

The truth is that as to the number of men needed on a ship is not a question capable of arithmetical settlement. If we had—as we will have when men are enlisted and paid in accordance with their mechanical expertness—only well-trained men on a dreadnaught the number required would be much less than when a large number are young, inexperienced, and under training. I believe we will reach a time when the pay of experienced men in the Navy will be raised so as to make service in the Navy more attractive, and then we will have smaller complements than are required with a force in which a large percentage must be taught the duties afloat.

	Designed complement.	Fleet board reported, 1915.	Prewar complement July, 1917.	War complement July, 1917.	Approximate number on board during war.	Present complement.	Bureau allowance.
Arizona.....	937		1,006	1,067	1,300	1,187	1,113
Arkansas.....	916	1,200	930	1,053	1,300	1,361	1,138
Connecticut.....	844	1,078	853	1,036	1,200	1,143	984
Florida.....	837	1,188	845	1,113	1,100	1,136	1,016
Delaware.....	830	981	999	1,011	1,200	1,259	1,016
Georgia.....	798	1,041	798	955	1,100	1,012	884
Idaho.....	1,000		817	1,328		1,160	1,160
Kansas.....	844	1,078	853	857	1,300	1,143	964
Louisiana.....	844	1,137	853	859	1,200	1,160	1,160
Mississippi.....	1,000		1,006	1,296	1,200	1,160	1,160
Minnesota.....	844	1,106	853	859	1,300	1,143	964
Michigan.....	708	1,157	715	871	1,000	1,032	942
Nevada.....	809		969	1,016	1,200	1,213	1,113
New Mexico.....	1,000		817	1,016	1,100	1,166	1,160
North Dakota.....	830	1,009	847	1,005	1,100	1,209	1,031
New York.....	902	1,094	962	1,060	1,300	1,352	1,138
New Hampshire.....	844	1,078	853	869	1,200	1,143	984
New Jersey.....	798	1,041	798	955	1,100	1,067	894
Nebraska.....	798	1,041	798	955	1,100	1,012	894
Oklahoma.....	809		786	1,016	1,300	1,213	1,123
Pennsylvania.....	937		951	1,022	1,400	1,190	1,113
Rhode Island.....	798	1,041	798	955	1,200	1,012	894
South Carolina.....	708	1,157	704	917	1,100	1,012	942
Texas.....	902	1,069	962	986	1,300	1,352	1,138
Utah.....	828	1,188	845	1,113	1,300	1,136	1,016
Vermont.....	844	922	853	831	1,200	1,143	984
Virginia.....	798	1,041	798	955	1,300	1,012	894
Wyoming.....	915	1,200	910	1,053	1,400	1,361	1,138

Ship.	Date of—		Ship.	Date of—	
	Contract.	Commission.		Contract.	Commission.
Connecticut.....	1902	{ 1906 1916	Nevada.....	1912	1916
Georgia.....	1901	{ 1:06 1917	Idaho.....	1914	1919
			Michigan..	1906	{ 1910 1917

¹ March.

The various conditions and opinions as affecting the enlisted personnel of the Navy was well set forth in my statement before the Naval Committee of the House of Representatives on December 31, 1918, which is quoted as follows [reading]:

It seemed to be universally agreed by all naval experts that in passing from the predreadnaught class of battleship to the dreadnaught, a reduction in the cost of maintenance would result because of two factors: (a) that the small ship with a great number of small-caliber guns required more men and officers than a larger ship with large-caliber guns only, therefore the complement of a dreadnaught would be less than the complement of the predreadnaught; (b) the change from the coal-burning to the fuel-oil-burning battleship would reduce the complement of the dreadnaught as compared with the predreadnaught.

While only the latest battleships have been oil burners exclusively, and although a reduction in the engineer's force has resulted, nevertheless the complements of the ships of the Navy have been constantly increasing and have been increased far beyond the designed complement at the time the ships were laid down.

Let me read you a letter from President Roosevelt.

On January 11, 1907, President Roosevelt, in advocating the authorization of the "all big-gun ship" in his message to Congress, stated as follows upon recommendation of the experts of the Navy Department.

This has a bearing as showing that there are a number of officers of the Navy who now wish to have more ships and more men on the ships than there are accommodations for. President Roosevelt said:

"Moreover, though a large ship consumes more coal, a small ship having a large number of small guns (6-inch, etc.) actually requires more men and officers than a large one having heavy guns only, and consequently each small ship costs at least as much to maintain and repair."

This was President Roosevelt in 1907.

"For example, the complement of a dreadnaught of 18,000 tons is 690 officers and men!"—

That is, of the new dreadnaught in his day; the last word in his day—

"While that of the *Louisiana* of 16 000 tons is about 850."

In 1910, the war complement of the *Louisiana* was stated at 954 men and the peace complement as 834 men, while in 1915, a report from the fleet itself placed the peace complement of the *Louisiana* at 1,137 men. The *Louisiana* is cited because in 1907 the experts, in advising President Roosevelt, placed the complement at 850 officers and men.

For instance, the *New York*; the designed complement is 902 enlisted men. In 1915 the complement was stated at 1,094 as flagship, and to-day she has on board, 1,444 men as a flagship, and the peace complement, as determined by a board now in session in the fleet, will be probably 1,410 men. Another instance is the *Delaware*, whose designed complement was 830 men; in 1915, 981; to-day 1,094, and the board in session in the fleet will probably recommend a peace complement of 1,247 men.

When the plans for the modern dreadnaughts were laid down such ships as the *Pennsylvania* and *Arizona* were designed to carry 937 men, but the number of enlisted men actually on board to-day is 1,440 for the *Pennsylvania* and 1,540 for the *Arizona*. While it is true that the battleship force has been used for training purposes during the war there is, nevertheless, a board in the fleet now in session to recommend the complement of the battleships, and it is probable they will recommend a complement of about 1,420 men for the *Pennsylvania* and 1,490 men for the *Arizona*. This is an increase of 556 and 626 men, respectively, over the designed complements in time of peace.

The following table submitted in my hearings in December, 1918, at the time mentioned is inserted, as it also illustrates the difference in opinion:

Ships.	Guns.	Designed complement. ¹	Fuel.	Complement, officers and men.	
				Fleet board reported in 1915.	Chief of Bureau of Navigation at present for peace.
New York.....	10 14-inch; 21 5-inch.....	902	Oil burner and coal.	1,094	1,444
Arkansas.....	12 12-inch; 21 5-inch.....	916	do.....	1,200	1,453
Wyoming.....	do.....	915	do.....	1,200	1,460
Texas.....	10 14-inch; 21 5-inch.....	902	do.....	1,069	1,417
Delaware.....	10 12-inch; 14 5-inch.....	870	do.....	981	1,247
North Dakota.....	do.....	870	do.....	1,009	1,087
Utah.....	10 12-inch; 16 5-inch.....	828	do.....	1,188	1,270
Florida.....	do.....	837	do.....	1,188	1,275
South Carolina.....	8 12-inch; 22 3-inch.....	708	Coal only.	1,157	1,218
Michigan.....	do.....	708	do.....	1,157	1,026
Kansas.....	4 12-inch; 8 8-inch; 12 7-inch; 18 3-inch.....	844	do.....	1,078	1,217
Nebraska.....	4 12-inch; 8 8-inch; 12 6-inch; 12 3-inch.....	798	do.....	1,041	1,060
Rhode Island.....	do.....	798	do.....	1,041	1,000
New Jersey.....	do.....	798	do.....	1,041	996
Georgia.....	do.....	798	do.....	1,041	1,000
Virginia.....	do.....	798	do.....	1,041	1,011
Minnesota.....	4 12-inch; 8 8-inch; 12 7-inch; 18 3-inch.....	844	do.....	1,106	1,215
Vermont.....	do.....	844	do.....	992	1,228
New Hampshire.....	do.....	844	do.....	1,078	1,228
Louisiana.....	do.....	844	do.....	1,137	1,189
Connecticut.....	4 12-inch; 8 8-inch; 12 7-inch; 16 3-inch.....	844	do.....	1,078	1,215

¹ Exclusive of marines.

² Flag ship.

The last report of the Bureau of Navigation was 1,400. Now, 1,400 is just as much too many as 900 is too small.

These studies and reports as above mentioned endeavored always to arrive at the number of men necessary to man every station for fighting the ship. In other words, it gave the ideal complement of a ship. Having determined what the ideal complement of men would be, it was then necessary to study the spaces available in the ships already built to see if the men could be properly quartered on board; and after the comprehensive report of 1916 was submitted it was found that a great many of the ships then completed and in service did not have sufficient space to adequately quarter the ideal number of men recommended for service on the ship. It was in regard to this that Admiral Plunkett made the following statement before the committee:

In 1915, when the question of shortage of personnel was most acute on the vessels—

In 1915, bear in mind, Mr. Chairman; that was the year I recommended an increase in personnel which, in the bill of August, 1916, went up to 97,000—

which were in commission, there was a great deal of loose talk, and there were memoranda and reports and other things as to the number of men required to man a ship efficiently. As a matter of fact, we have some definite information from the people who designed the ship that the number of men that we thought we needed to fight those ships efficiently could not be berthed in the ships.

I wish to emphasize that. [Continuing reading:]

They were not big enough to hold the crews that we needed to fight the guns in the ship.

In the course of two years, now, mind you, here were Admiral Plunkett and the other admirals also. [Continuing reading:]

As the result of Admiral Mayo's efforts, in which I heartily concurred, we finally arrived, in the course of two years, at what was the correct number of men and officers in order to man our ships which were then in commission so that they would be efficient in battle. The numbers which we arrived at were far in excess of the numbers which were contemplated in the original design of the ships.

I might say, as bearing directly on this, and also having an influence on the number of these men, that in 1915 we woke up to the fact that we had built a number of very excellent ships but we had not found out how to fight them. Before 1915 there was a fire-control board ordered, which went right into the question, not of using the guns of the ship one at a time, but how to use all the guns at the same time so as to bring the greatest volume of fire to bear upon the enemy; and it was the report of that board that pretty nearly turned the Navy upside down and was the first step in the direction of showing us what we actually needed in the way of officers and men on our ships in order to fight them in battle and to bring all their offensive and defensive weapons into action at the same time. Naturally, the money was asked for at once, but it takes time to produce the instruments that were required to be installed in those ships, and also naturally our latest ships were the first ones to receive them.

But never in the history of the Navy has there been anything more intensive than the gunnery training of our fleet which took place in 1916 and 1917 and 1918.

There was never anything like it. [Continuing reading:]

The result of that was that when the war broke out, although we were still undermanned, the gunnery efficiency of the ships that were in commission was higher than it ever had been in my recollection of the Navy. As a matter of fact, we had just one battleship, the *Wyoming*, fire in practice at nearly 20,000 yards, the longest range that has ever been fired by the service, and she made the phenomenal score of 20 per cent of hits under battle conditions.

It was also in connection with this situation that Admiral Rodman in a report dated December 15, 1917, stated as follows:

The division commander is deeply impressed with the inconsideration that is shown the enlisted personnel, on these ships in particular and all of our ships in general, in reference to the inadequacy and crowded condition of their sleeping and living spaces. The best and airiest space, such as the gun deck, is largely taken up with offices galore, workshops, laundries, provision store-rooms, washrooms, for all sorts of ratings, etc., while the men are packed like sardines in a tin, two and three deep at times, in close, poorly ventilated berth-deck compartments.

It seems that whenever some new office or space is thought to be needed that the airiest and best space on the gun deck is taken from the men, that the occupants may have the benefit of the light and air during the working hours of the day no matter how much it may encroach upon the small proportion now assigned to the crew, and cause just so many more additional men to find sleeping billets on the already overcrowded berth deck.

We are constantly discussing sanitation, disinfection, precautionary measures for preventing disease, etc., but to my mind we neglect the most important, namely, insuring sufficient and well-ventilated sleeping accommodations for the crew.

It should be remembered that for the last 10 months, since this division has been operating with the Grand Fleet, that in order to darken ships it is absolutely necessary to interfere with even the ordinary ventilating and fresh-air supply, thus adding to the unsatisfactory condition which previously existed.

In making a careful study of these ships I would strongly recommend structural changes, when the opportunity arrives, of (a) making an all but clean sweep of every office, storeroom, workroom, and utility now installed on the gun decks possible, placing them elsewhere, and turning it (the gun deck) into the main sleeping and messing space; (b) combining all offices, without an exception, into the same space or locality, segregating the commissioned from the enlisted personnel; (c) combining workshops into one general compartment.

at least those that are now in the gun deck; (d) install as many as possible of the utilities now on the gun deck elsewhere; (e) give sleeping space to the crew the first consideration; other installations to be considered secondary.

I believe that if these recommendations receive consideration and be carried out they will not only add to the health, happiness, and contentment of the crew, but will automatically add to the efficiency of the ships.

There is much wisdom in the above statement by Admiral Rodman, and his recommendations, in the main, when followed out, will work a great improvement.

And I may say that I have ordered Naval Construction and the Surgeon General of the Navy to follow out, as nearly as possible, the recommendations of Admiral Rodman that more space be given to the enlisted men, and that no crowding be permitted upon the ships.

COMPLEMENT OF BRITISH AND AMERICAN NAVAL SHIPS.

In the hearings before the House Naval Affairs Committee in 1918-19, there was much discussion as to the complement for ships of the Navy. The Acting Chief of the Bureau of Navigation, Capt. Laning, in making his recommendations for personnel, increased the number of men on each ship over the number that some members of the committee thought the ships required. I agreed with the House committee that the complement suggested was too high. In that hearing the question of the relative number of men in the United States Navy and in the British navy was touched upon. I furnished the committee the complement of ships of both navies, those of the British battleships for September, 1918, a long time after the battle of Jutland and just before the war closed. It is as follows.

You will find, Mr. Chairman, in that table that the numbers of officers and men on the British ships are not very far from the numbers of the complements fixed for our dreadnaughts when they were built. The table follows:

Complements of British battleships corrected to September 30, 1918.

Battleships.	Completion.	Displacement.	Officers and men.
Royal Sovereign.....	Apr. 29, 1915	25,750	942
Royal Oak.....	Nov. 17, 1914	25,750	977
Revenge ¹	May 29, 1915	25,750	970
Resolution.....	Jan. 14, 1915	25,750	937
Ramillies.....	Sept. 12, 1916	25,750	937
Canada (late Almirante I atorre).....	Nov. 27, 1913	28,000	1,176
Malaya.....	Mar. 18, 1915	27,500	955
Vallant.....	Nov. 4, 1914	27,500	957
Barham ¹	Dec. 31, 1914	27,500	965
Queen Elizabeth ¹	Oct. 16, 1913	27,500	1,066
Warspite.....	Nov. 26, 1913	27,500	957
Erin (late Reshadieh).....	Sept. 3, 1913	23,000	1,130
Agincourt (late Osman I).....	Jan. 22, 1913	27,500	1,267
Benbow.....	Nov. 12, 1913	25,000	965
Emperor of India ¹	Nov. 27, 1913	25,000	995
Marlborough ¹	Oct. 24, 1912	25,000	1,085
Iron Duke.....	Oct. 12, 1912	25,000	955
Ajax.....	Mar. 21, 1912	23,000	915
Centurion.....	Nov. 18, 1911	23,000	812
King George V ¹	Oct. 9, 1911	23,000	849

¹ Flagship.

A comparison of the complements of ships of equal size and fighting power will show that the Navy of our country has a larger complement than the British ships. For example, the *Royal Sovereign*, with a displacement of 25,750 tons, has 942 officers and men. The *Wyoming*, with a displacement of 26,000, had a complement of 915 in 1912. The fleet board in 1915 said the complement should be 1,200, and the Acting Chief of the Bureau of Navigation in 1918 said it should be 1,460, an increase of 545 men on one ship.

In the hearing Representative Oliver said:

I would like to call your attention to a statement made some time ago by Admiral Sims to the committee, where, I think, he expressed the opinion that the complement of some of our ships should be reduced.

That was in 1914 or 1915. At that time the complement, for example, of the *New York* was 902. The fleet board reported in 1915 that it should be 1,094, and the Acting Chief of the Bureau of Navigation, Capt. Laning, in December, 1918, said it should be 1,444. The ship had grown no larger, and yet in these few years it was proposed to increase the number of men necessary to man it from 902 to 1,444. And according to Admiral Rodman there were not sleeping places on the ship for the number of men recommended by Capt. Laning, and it was dangerous to health, and the sanitation was necessarily bad.

The CHAIRMAN. When was the *New York* put in commission?

Secretary DANIELS. About 1910, I guess. I should say that it was about that time. I will get the exact date.

The CHAIRMAN. It is not of any particular importance.

Secretary DANIELS. I should guess that it was between 1910 and 1912. It is important, and I will put it in.

These instances and opinions are cited to show that no naval expert opinion is infallible and that it changes from year to year, and sometimes rather startlingly.

ADMIRAL BLUE'S GREAT WORK AS CHIEF OF THE BUREAU OF NAVIGATION.

During this hearing much has been said about the number of men authorized in the naval bill of 1914-15, and an attempt has been made to show that fewer men were requested for the complement of the ships than the fixed complement settled upon when the ships were constructed. Two or three officers, not well informed as to his attitude and great service, have criticized the actions of Rear Admiral Victor Blue, then Chief of the Bureau of Navigation. The fact is that the number of men estimated for each ship by him was the exact number which the ships had been operating from their construction, fixed long before I became Secretary of the Navy, and before Admiral Blue became Chief of the Bureau of Navigation. His predecessors estimated the complement of the ships when they were built, and he truly says, "These complements had stood the tests of actual service."

In this connection I wish to say what every Member of Congress knows: That the chief credit due to any naval officer for the great increase in the Navy personnel and helpful personnel legislation is due to the wise, sensible naval statesmanship of Admiral Blue while he was the Chief of the Bureau of Navigation. Some officers,

with short memories, forget the lasting debt the Navy and the country owe to Victor Blue. When he became chief of the bureau it had been impossible to secure the authorized enlistment of men for the Navy; we had no Naval Reserve and no provision for it; the Navy had no admiral or vice admiral, except Admiral George Dewey, who was voted the high rank for life for distinguished services and notable victory at Manila; there was no Naval Operations office; no fixed percentage of officers to the authorized strength of the Navy; there had been no addition to the number of chaplains since 1842; no provision for enough midshipmen to even adequately provide trained officers for the Navy of 50,000 men.

The Naval Reserve legislation, which saved us in the World War, was originally drafted by Admiral Blue in 1914, and its improvement as incorporated in the act of 1916 was prepared by him. The same thing is true of legislation for admiral and vice admiral, fixed percentage of officers, and he had the pleasure and privilege of seeing the authorized naval strength doubled during his incumbency in office. He had the confidence of the Naval Affairs Committee to the highest degree, and the personnel legislation in the act of 1916, unprecedented in number and wise provisions, which he recommended was enacted before he went to sea. It is true, as he says in his statement already placed in the record, that at great sacrifice he surrendered his desire to go to sea to remain in Washington to cooperate with the Secretary and the Naval Affairs Committee to perfect that great measure, incomparably the most constructive and greatest naval bill that Congress has ever enacted. Its provisions, drawn on preparations for war, stood the test of the great expansion, and little additional legislation was needed when the emergency, which had been foreseen by all of us, arrived. The Bureau of Navigation from August 29, 1916, had its sailing chart, largely prepared by Admiral Blue, and needed only to navigate in the channel marked out by Admiral Blue with a foresight that entitles him to the gratitude of the service and the country.

Admiral Blue has written to the committee and his statement, plain and illuminating, already inserted in the record, is complete refutation of the mistakes and misleading statements you have heard. Admiral Blue rendered distinguished service in the Spanish-American War for which he was highly commended and for which Congress gave him promotion by additional number in his grade. The following statement of his naval services, upon his appointment as Chief of the Bureau of Navigation, was published in the papers in April, 1913. It was very distinguished service, for which he was promoted. I will not read that.

(The matter referred to is here printed in the record as follows:)

The Secretary of the Navy to-day announced the resignation of Rear Admiral Philip Andrews as Chief of the Bureau of Navigation and the appointment of Commander Victor Blue to that office. Commander Blue had long been known to the country at large as a naval officer of the highest merit. He is best known throughout the world for the conspicuous part he placed in locating Cervera's fleet at Santiago during the war with Spain under the most hazardous circumstances. The two meteoric exploits of the war with Spain was Hobson's bottling up the Spanish fleet with the *Merrimac* and Blue's daring reconnoitering tours around Santiago to locate the Spanish fleet and ascertain information of inestimable value to the blockading American forces. While the whole world applauded, the Navy also fully recognized the value of Lieut. Blue's work. In

the Naval Register his name appears in italics with the notation that he was "advanced for extraordinary heroism during the War with Spain."

The Navy Department on June 13, 1898, received the following cablegram from Rear Admiral W. T. Sampson, commander in chief of the North Atlantic Station:

"Lieut. Blue just returned after detour of 70 statute miles to observe in the harbor Santiago de Cuba. He reports the Spanish fleet all there."

Secretary of the Navy Long in writing officially to Lieut. Blue speaks as follows: "The department realizes this simple cablegram is evidence that efforts in making this detour into the heart of the enemy's country, by which you ascertained information very much desired, must have been attended with great risk to your personal safety, and that you possessed the coolness, nerve, and bravery requisite to perform such duty under trying circumstances." The Secretary adds in the course of his letter that "the department takes much pleasure in highly commending you for this service," and considers it "a most favorable augury for your future career in the service already distinguished by the personal heroism of its members."

On June 27, 1898, Rear Admiral Sampson recommended to the Secretary for consideration the excellent conduct of Lieut. Victor Blue for having undertaken twice to locate the position of the Spanish fleet, on the first occasion traveling over a distance of 73 miles and on the second a distance of 60 miles, mostly through territory occupied by the entrenchment of the Spanish Army. The admiral recommended his promotion, and he was promoted.

In commending Lieut. Blue's exploit Lieut. Commander Delehanty on the *Suwanee* speaks of Lieut. Blue's report as a "simple, modest statement of his trip and results," but invites attention "to the perilous nature of the trip and the prompt and satisfactory manner in which it was performed."

Commander Delehanty in a report dated July 1, 1898, describes at some length the knocking down of the flag on the fort at Agnuderres and in the course of his report says: "We were at a distance of 1,300 yards, using this range and a 4-inch gun. Lieut. Blue sighted the gun and fired the three shots; the first rent the flag, the second struck near the base of the staff, inclining it about 20 degrees, from the vertical, the third shot tore away the flag and staff."

Lieut. Blue was also recommended for promotion by Capt. Goodrich, commanding the gunboat flotilla, for his conspicuous gallantry.

As a commander, Blue commanded the U. S. S. *Yorktown* on the Pacific station and followed that with a further tour at sea as chief of staff of the Pacific Fleet. On the completion of this service he was assigned to duty on the General Board.

He was executive officer of the *Suwanee* during the war and also commanded the Spanish gunboat *Alvarado*, which was taken immediately after the surrender of Santiago.

Commander Blue as Chief of the Bureau of Navigation will be charged with the general assignment of enlisted men and of officers not above the grade of commander. It is the Secretary's policy that an officer of the rank of commander shall not have the assignment of rear admirals and captains who are senior to him and he has issued instructions that he himself will handle the assignments to duty of these two grades after hearing the recommendations presented by his full council of aids.

Since coming into office the Secretary has received many reports showing that there is some dissatisfaction among the enlisted and commissioned personnel of the Navy, and he has found Commander Blue thoroughly in accord with his ideas as to the necessary steps that should be taken to advance the interests of the enlisted men and of the seagoing officers, thus increasing their contentment and adding to the efficiency of the fleet.

After his terms as Chief of the Bureau of Navigation, where he planned and secured nearly all the personnel legislation which enabled the Navy Department to provide officers and men for the ships when war was declared, he became captain of the dreadnaught *Texas*, which, under his captainship, held the highest record for efficiency of any dreadnaught in the Navy. That ship was in the battleship squadron in the North Sea during the war, under the command of Admiral Rodman.

I have here copies of the letters addressed to the chairman of this committee, Senator Hale, in regard to the testimony of Admiral McKean.

The CHAIRMAN. You do not care to have those letters printed again? They are already in the record.

Secretary DANIELS. Yes; they are already in the record. They need not be printed here.

THE NAVAL RESERVE—STRICT ORDERS GIVEN WHICH PREVENTED THE THREATENED ABUSE OF WHOLESALE COMMISSIONS TO MEN NOT QUALIFIED.

Secretary DANIELS. I have often paid tribute to the splendid body of young men who served in the Naval Reserve. They had enthusiasm, born of high patriotism, zeal, and ambition, and in a remarkably short time many of them learned so rapidly that they deserved the fine things said about them by the Regulars. It is hard to know how we would have managed to furnish crews to the troop transports and ships for carrying ammunition and supplies and performed the other varied important, not a few of them new, duties, unless legislation had been enacted prior to the war which gave power to enroll any necessary number of men for the big task, assigned to the Navy.

Let me review the beginning of the Naval Reserve and show the foresight which made it an effective agency when the World War made unprecedented and unexpected demands upon the American Navy. I had not been Secretary of the Navy many weeks before the question of encouragement of the Naval Militia received consideration, and I appointed a board of its officers to draft the provisions which added to the value of the Naval Militia. Just here let me say how much the Navy owes to the members of the Naval Militia when we went to war. There were only about 11,000 or 12,000 men in the Naval Militia, but they were mobilized at once and furnished the best officers who were immediately available except our own noncommissioned officers who were promoted. Not a few of them were given responsible duties and they fitted into the organization so well that their good work more than justified the faith I had in them when, in 1913, I gave hearty and active cooperation to this body trained in peace for service in war.

There was no provision for the organization of the Naval Reserve when I became Secretary of the Navy in 1913. After securing legislation to strengthen the Naval Militia and procuring better training for them, the department turned its attention toward legislation providing a naval reserve. As far back as the naval appropriation act of March 3, 1915, upon the recommendation of the Secretary of the Navy, Congress enacted legislation creating a Naval Reserve, and in the act of August 29, 1916, the law was broadened and extended along lines first drafted by Admiral Victor Blue, the Chief of the Bureau of Navigation. By reason of this legislation the Naval Reserve was an instrument ready to be used even before we entered the war; but it was not until the regular quota was filled and the need for men was pressing as we entered the war that it became a large and powerful agency. Indeed, when we entered the

war in April, 1917, our Naval Reserve was small and was composed largely of the Naval Militia or National Guard Volunteers, numbering about 12,000.

Under date of July 30, 1915, in response to my oral order for recommendation for war needs, the General Board stated that

Upon outbreak of war the personnel of the Navy must be greatly extended to provide for aviation, coast defense districts, auxiliary duties of all kinds, and a reserve of men under training to replace casualties.

Admiral Blue, Chief of the Bureau of Navigation, in his annual report in the fall of 1915, stressed the need for changes and additions to the Naval Reserve law, and under date of January 13, 1916, I addressed a letter to the chairman of the Naval Committees of the House and Senate, inclosing a draft of a bill for the establishment of a Naval Reserve, from which the following is taken. I will not read that, but simply have it inserted.

(The matter referred to is here printed in the record as follows:)

I am inclosing herewith a draft of a bill for the establishment of a naval reserve, the careful consideration of which by your committee is recommended.

It is more general in its application than the reserve established by the naval appropriation bill approved March 3, 1915, and includes various classes of persons who are capable of rendering efficient service in the Navy in time of war. * * *

Prior to the present war in Europe, England had in her regular navy 45 enlisted men for each 1,000 tons of ships. Germany had 51, France 67, Japan 71, and the United States 52.

The United States, therefore, has on a peac basis about the same number of enlisted men per 1,000 tons as Germany, somewhat more than England, and considerably less than France and Japan.

England maintains a reserve force equal to 45 per cent of her active force. Germany 104 per cent, France 149 per cent, and Japan 55 per cent of their active forces, respectively. The United States has a reserve force, including the Naval Militia, equal to only 12 per cent of her active force.

It is, therefore, seen that all great naval powers maintain reserve force to fill the complements of their fighting ships in time of war, and to supply personnel for auxiliary vessels taken over from the merchant marine. Otherwise the cost of the regular establishment would be a greater burden for the taxpayers than it is.

* * * * *

An adequate naval reserve force is a necessity for national defense. It is an economy in the Naval Establishment as an item in the cost of preparedness, and I can not too strongly recommend the careful consideration of the subject by your committee.

Secretary DANIELS. The great value of the Naval Reserve in war, pointed out in January, 1916, "it is necessary for national defense," was fully realized when war came. Before the armistice was signed we had enrolled 306,728 men and 20,705 officers in the Naval Reserve. Most of them had no previous naval training, though some of them had technical knowledge or accounting experience which were needed and not a few had had some experience at sea. However, all of these were not called into service during the war. I wish to emphasize this:

While a large Naval Reserve before we entered the war was the goal to which I had been working for years, the policy of the department was to concentrate upon securing the full quota of regulars authorized by law before pressing for enlistment in the Naval Reserve. The reason for this was plain. The regulars were actually

in the service and could be trained and sent anywhere. The law governing the reserve force was in these words:

The Naval Reserve force will be composed of citizens of the United States who obligate themselves to serve in the Navy in time of war or during a time of national emergency, declared by the President.

I remember the first suggestion of a draft of that legislation. We provided that the reserves should "serve in time of war or during the existence of a national emergency" and some wise member of the Naval Affairs Committee raised the question that a "national emergency" should be strictly defined, because the reserves, while ready to come into the Navy in war or emergency, did not wish to subject themselves to come in except in some extraordinary emergency. In order to meet this view it was decided to provide that they be called into active service only in war or when the President "declared" a national emergency. This was emphasized in the law by the following paragraph:

Members of the Naval Reserve force may be ordered into active service in the Navy by the President in time of war or when, in his opinion, a national emergency exists.

The Naval Reserve has established six classes in which officers and men could be enrolled for different kinds of duty as follows: Class 1. Fleet Naval Reserve; class 2, the Naval Reserve; class 3, Naval Auxiliary Reserve; class 4, Naval Coast Defense Reserve; class 5, Naval Reserve Flying Corps; class 6, Volunteer Naval Reserve.

The qualifications necessary for enrollment in each class is as follows:

Class 1: Must be an ex-officer or enlisted man of the United States Navy.

Class 2: Under the original act of August 29, 1916, class 2 was limited to those engaged in the seagoing profession who enrolled for general service. This was changed by the act of July 1, 1918, so that any citizen of the United States could be enrolled in this class who was qualified for the duties of their rank or rating on combatant ships of the Navy.

Class 3: This is the merchant marine class. All officers and men engaged in the seagoing profession in the merchant marine are eligible for this class.

Class 4: Any citizen of the United States may be enrolled in this class, regardless of any previous seagoing or ship experience. Unless enrolled for general service or for service or transfer to another class they are not liable for duty outside of a naval district or on district vessels.

Class 5: Is confined to those qualified for duties in connection with aviation.

Class 6: There is no restriction on the membership of this class by law, but restrictions may be made by regulation of the Secretary of the Navy. They take no training in time of peace and draw no pay.

Class 4, known as "Naval Coast Defense Reserve," did not require skill and experience in seamanship, and any citizen was eligible to enroll in this class "capable of performing special useful service in the Navy or in connection with the Navy in defense of the coast," but they could not be sent to the general service in the Navy without

their consent. This applied alike to officers and men. It made service so limited that large enrollment of reserves of class 4 was not desired until after the regular quota had been filled. The law as to commissioning officers in class 4 was the same as in other classes of reserves, for it required—and I beg to call special attention to that statement—that—

No person shall be appointed or commissioned as an officer in any class of the Naval Reserve force, or promoted to a higher rank therein, unless he shall be examined and recommended for such appointment, commission, or promotion by a board of three naval officers, none below the rank of lieutenant commander.

The CHAIRMAN. Does this same law as to class 4 as to officers apply to enlisted men; that is, that they were not liable for duty outside of the naval district?

Secretary DANIELS. Yes; the same applied.

The law as to class 4 was very broad, and the very liberality of its provisions imposed a special duty upon its administrators to be careful to carry it out in its spirit, and to secure only those who could render "special useful service in the Navy or in connection with the Navy in defense of the coast." It was never intended that class 4 should be used to enroll men to become clerks and perform other strictly nontechnical shore duties. The terms of the law limit those enrolling to serve the Navy or "in defense of the coast and only in war or in emergencies." The large latitude given in enrolling men and officers in the reserve of class 4 made it easy, unless administered most conscientiously, for it to be abused. The men and officers enrolled in class 4 could not be used for general service at sea, but were restricted to duty in naval districts, though they could be used for naval district vessels also. But they could not be sent abroad. It is important to bear in mind that they could not be sent to sea for general use in the Navy, and, therefore I directed that no special effort be made to secure enrollments in class 4 until the quota of regulars authorized by law had been filled.

On April 1, 1917, there were 3,345 men enrolled in class 4, out of a total of 8,079 in the reserve force; nearly half. During the month of April there were 16,371 enrolled in the various classes of the reserve force. Of this number there were 11,041 enrolled in class 4, and none of them could be sent to sea on regular service. During the month of May there were 13,614 Naval Reserves enrolled. Of this number 10,830 were in class 4. On June 1, 1917, out of a total of 38,064 men enrolled in the reserve force, there were 25,216 in class 4.

In other words—and this is very important to get this in the record—nearly three-fourths of the Naval Reserves enrolled this date—in other words, nearly three-fourths of the Navy—could only be used for coast defense purposes and could not be sent to sea for general service in the Navy. I must say, Mr. Chairman, otherwise a wrong impression would be conveyed, that very many young men who enlisted in class 4 did so only because they wished to come in only "for the war" and not because they wished to limit their service to coast defense. There were also on this date 1,259 men who were enrolled in class 4 for training for duty in other classes, the enrollment under these conditions having been done at the volition of the men enrolled and these men could be used for duty at sea under the stipulated condition of training for the other classes. This

number, however, was extremely small compared to the large number of 25,216 which could not be used for general service. On this date, June 1, 1917, the allowed strength of the Regular Navy was 162,466 and there were enlisted in the Regular Navy only 109,010. Our greatest need was to press for regulars rather than reserves for limited service.

The conditions mentioned above also applied to the officers enrolling in class 4 of the Naval Reserve, except in my opinion they were even more unsatisfactory than those in regard to the men because I found that a large number of officers were being commissioned direct from civil life who had no seagoing or ship experience or any expert knowledge or business education.

In the month of March, out of a total of 1,212 reserve officers enrolled 969 were in class 4. For the month of April out of a total of 1,632 there were 1,281 in class 4. I was surprised, I may say I was shocked, when I learned that the greater number of these officers were being enrolled for line duties, about which most of them knew little or nothing, and not for some technical duty in the Supply Corps or other staff corps. For instance, for the month of March officers in class 4 were enrolled as follows:

For the line-----	749
Medical Corps-----	76
Supply Corps-----	128
Other staff corps-----	20

For the month of April:

Line-----	658
Medical Corps-----	356
Supply Corps-----	85
Other staff corps-----	16

I learned also that many of these men, who had been enrolled as line officers in class 4, not only had no qualifications as naval line officers but they had been commissioned without any examination that tested their fitness to be made line officers, as the law required. My deep interest in the reserves, my faith in the value of their services, and my high conception of the qualities a man should possess before being given a commission in the line, impelled me to give directions to the Bureau of Navigation not to give commissions except to men of demonstrated fitness. When I learned that 1,407 officers had been commissioned in the line in class 4, in March and April, and none of them could be ordered to general sea duty, I immediately called a halt in the wholesale giving of naval commissions in the line. Indeed, earlier in April, when it came to my attention that men were being enrolled as officers in class 4 and assigned to desk duty who were neither technicians nor accountants, I directed the Chief of the Bureau of Navigation to send this telegram to all naval districts, of which this sent to the commandant of the second naval district is a copy:

APRIL 10, 1917.

COMMANDANT SECOND NAVAL DISTRICT:

Suspend enrollment of officers in class 4 until further orders. 10310.

BUNAV.

That telegram was not ordered to be sent until it was necessary to stop the abuse of the law authorizing the enrollment of officers in the

Naval Reserve, class 4, which threatened to become a scandal. By reason of my action the number of officers enrolled in class 4 in the line was reduced from 658 in April to 107 in May. After this order was issued the enrollment of men in class 4 fell from 10,830 in May to 5,211 in June and went as low as 1,419 in September. On June 1 I directed that all who enrolled in class 4 should volunteer for general service. However, the Bureau of Navigation continued to permit the enrollment of some men and officers in class 4, who had not the requisite qualifications and who had passed no competent examination. Some of those commissioned officers knew nothing at all of the duties of a line officer in the Navy and should have been required to enlist as seamen and obtain commissions by showing proficiency in training or in service afloat. This was done at a later date by my direction, and greatly to the good of the Navy and the reserves who were in class 4.

During those early months there was a continuous and persistent insistence from many quarters that commissions be given to young men in the Navy without the requirement of first serving apprenticeship as seamen. This insistence resulted too often in commissions being given to young men who lacked the training to command others. On May 1, 1917, there were 2,359 officers enrolled in class 4 (not one of whom could be sent to sea for general service), divided as follows:

Afloat at sea.....	180
Afloat on naval district vessels.....	127
Performing administrative duties on shore.....	1,230
Total on active duty May 1, 1917.....	1,537
Enrolled but not on duty as officers.....	2,859

It will thus be seen that the Bureau of Navigation and the district commandants had enrolled 822 officers, who had not been called to duty and 1,537 on duty, 1,230 of whom were performing administrative duties on shore. Most of them had been commissioned without any examination which tested their fitness, and except in the positions calling for experts and accountants, many of them without the proper qualifications for officers in the Navy. And none of these officers could be sent to sea for general service. The information came to me from Boston, from New York, from Philadelphia, from Norfolk, from Washington and their districts, and it was becoming common gossip that officers were being made "while you wait," and that young men with influence could get a commission while young men without influence had to enlist as seamen. My office was thronged with men asking commissions for young men of military age who ought to have gone to recruiting offices instead of seeking commissions. About that time I recall that a Member of Congress earnestly appealed to me to give his secretary a commission. "What can he do?" I asked. "He is a good stenographer," he answered. "Tell him to go to the recruiting office and enroll as a yeoman," I replied, and declined to give him a commission though the Congressman was earnest in his appeal.

Some days later I met the Congressman on Pennsylvania Avenue, and he said: "You remember the young man I asked you to commission as an officer and you said it could not be done until after he had enlisted and has won it by service?" I told him I did.

"Well," he said, "the young man has his commission and is wearing the gold braid. Somebody can give commissions if the Secretary of the Navy has not the power."

How was it done? He had taken the young man into one of the naval districts and he had been enrolled as an officer. This was not an isolated case. There were doubtless a number of like cases where, in spite of the order of April 10, the enrollments of officers in class 4 continued, though in less numbers. As information to this effect came to me from various sources I saw that it was necessary to take vigorous steps to prevent further enrollment of officers in class 4 and directed the Chief of the Bureau of Navigation on June 30 to inform the commandants of naval districts that any authority to enroll officers in class 4 was revoked.

This order caused much consternation and some criticism of the Secretary of the Navy, and some of the district commandants came to Washington and urged me to restore to them the right to commission officers in class 4. I declined and informed them that too many commissions had already been given to men who lacked the necessary qualifications and that when any commandant wished a man particularly qualified, as ascertained by examination, who ought to be commissioned, he should send his recommendation to the department, and such recommendation would be promptly acted upon. Some of them objected that this would cause delay. I told them that they had free use of the telephone and telegraph and whenever they needed to have a qualified man commissioned there would be delay of only a few minutes. I pointed out to them, as I had repeatedly done to the Bureau of Navigation, that the Navy owed it to itself and to the capable men it had commissioned not to commission any except those who could demonstrate special fitness, and those who had enlisted in the ranks and were working and studying to win a commission.

In some districts, where commissions were passed out too freely, the duty was assigned to young officers, sometimes to Reserve officers with little naval training, and they were influenced more by obtaining immediate help in the district than by requiring standards that insured qualified officers. In some districts in the early days of the war it is a fact that clerical and drafting and mechanical employees in navy yards were given commissions in class 4, and they never changed the civilian work they had been doing for years. This caused great dissatisfaction with other civilian employees, who properly felt that they had as much right to commissions as their co-worker at an adjoining desk.

It was necessary, Mr. Chairman, therefore, for me to give peremptory orders to prevent a wholesale abuse of commissioning men as officers in class 4 who were assigned to no purely naval work and who were commissioned without any examination worthy of the name.

It is a proud record of the Navy that nearly all the Naval Reserve officers of class 4 made good, and most of them were worthy and when called upon qualified for general service. But if I had not taken a determined stand and given drastic orders, which alone prevented the large abuse of class 4 officers, there would have been a scandal which would have reflected not only upon the Navy but would have

reflected also upon many worthy and efficient men who received commissions in class 4. At one time there was talk that "Naval Reserve class 4 is the slacker's paradise." It was not true, but it was prevented only by plain and direct orders. Nearly all the officers and men in class 4 showed their patriotism and good stuff by volunteering for "general service" when the department pointed out that the only service that counted was to go anywhere at any time and do anything the Navy needed to do. I know these officers and men. I would say nothing to reflect upon them, because before my order was issued some were commissioned who had no knowledge that qualified them for commissions. Indeed, they appreciate that the course I pursued kept out of the Naval Reserve class 4 those who wished to make it a refuge for men who were not willing to serve where service was the hardest.

In his testimony, Capt. Palmer, who was Chief of the Bureau of Navigation during the War, in answer to a question told your committee that "in the latter part of January the Secretary stopped the enrollment of reserves." His memory plays him false. I did not order him to stop enrollment of reserves. The information came to me about that time that the Bureau of Navigation, before having enrolled its authorized quota of regulars (they were 20,000 short), was about to start a big drive for enrollment of reserves, most of whom would go into class 4, a class which could not be ordered to any service without their consent except in the limited service for which they had enrolled, and then only in war or in an emergency declared by the President. I directed Navigation to use all its energies to enlisting men in the Regular Navy until the quota was filled and not to inaugurate any vigorous campaign for reserves until the authorized strength of the Regular Navy had been enlisted.

In his testimony, Capt. Palmer says:

The idea was that the reserves would come in for the war period.

We were not then at war. That was January, 1917. We had not broken off relations with Germany, and it was not the policy of the Government to be making strenuous efforts to enroll reserves "for the war period," when neither the President had recommended nor Congress had declared war. To have carried on a whirlwind campaign for reserves "for the war period," as Capt. Palmer says the Bureau of Navigation wished to do three months before war was declared, would have been against public policy and was wholly unnecessary because we needed regulars then more than we needed reserves. That is the plain and simple explanation of my wise direction. I could not consistently have taken any other course. But no order, verbal or otherwise, was issued "not to enroll men in the reserves." In fact, actual enrollments in the Reserve Force went on in the orderly way, without the big propaganda and big organization planned for enrolling reserves before the quota of regulars had been secured, and Navigation enrolled them in accordance with the law. As full proof of this, I need only to state that enrollment of reserves in January were 32 officers and 324 men; the enrollments for February were 208 officers and 1,346 men; for March, 1,212 officers and 5,530 men; and for April, 1,632 officers and 16,371 men. I did not order enrollments stopped, and they were not stopped.

Making a mountain out of a mole hill is a small business in comparison to the attempt to charge me with procrastination because of my order to concentrate on Regulars and fill that quota first, before making a drive for reserves. In fact, my action in directing the Bureau of Navigation to press Regular enlistments of men who would go anywhere ordered in preference to a whirlwind campaign for reserves, most of whom enrolled at that time only for service in a district, proved of great value in securing first an increased Regular personnel when most needed. In his testimony before your committee, Capt. Palmer, while telling you that I ordered him to stop enrolling reserves at certain times—I have given you my reason for the sound policy adopted—in answer to a question as to my action with reference to pressing the enlistment of Regulars, said:

The Secretary backed it up. He liked to see numbers coming in, and he spoke about it and wrote about it many times. He wanted to see the enlisted men come in.

If he had gone into detail he would have added that I not only backed up the recruiting force and wished enlisted men to come in but that I directed the Bureau of Navigation to use all diligence in enlisting the number of men authorized by Congress.

Your committee may not fully understand the significance of my action. A man enrolled in the Regular service could be sent to Queenstown, to Brest, to China, to Gibraltar—anywhere the Secretary of the Navy directed. The reserves enrolled in class 4—for special limited service in a small area—would not be available for service until war or an emergency, and then only for service in the coast defense, while Regulars enrolled were immediately available for any service in any part of the world. We could not put the reserves of class 4 on a ship to go anywhere needed, and we could not call them in even for training until war or an emergency.

The reserves of class 4 enrolled only for duty in coast defense districts. For example, at that time if a man should enroll in class 4 in the Chicago district I could not order him to duty to go to New York and go across on a destroyer or any like service. I could not send him to duty outside of the coast defense districts. When that provision was incorporated in the law it was done to induce young men in times of peace to become reservists and take their training practically at home. Soon after war began I found it was not a workable reserve, and I later directed the Bureau of Navigation to take steps to have all in class 4 changed over to a class for Regular service anywhere or be denied promotion. Most of them, fine young fellows, gladly did this and not a few had previously voluntarily asked to leave the coast defense service and enlist for overseas or service anywhere.

Capt. Palmer told your committee that several times I directed him to stop enrollment of reserves during the war. He would have been strictly accurate if he had said I directed him to stop enrollment of officers in the Naval Reserve in class 4. I never ordered the discontinuance of enrollment of men in the Naval Reserve at any time during the war until the introduction of the selective draft. But I did give an imperative order to Navigation to discontinue the enrollment of officers in class 4, except by the department. Why? Because I learned that too large a number of youths had been enrolled as officers without examination or qualifications. It had gone

to such an extent as to threaten a public scandal. Let me repeat, for it is important: The enrolling officers in some districts, for example, had given commissions in the Naval Reserve to certain clerks and other employees in navy yards who continued to perform at their desks the same duties they had hitherto performed as civilians. With what results? Other like employees in navy yards, quite as patriotic and quite as efficient, said they had been discriminated against and that they had as much right to receive commissions as those favored with commissions.

And they were right. Worse than that! Not a few young men, who had never seen the sea, knew nothing about accounting, and had no technical experience of any kind whatever, had been commissioned as lieutenants and in other grades. Such wrong giving of commissions was not only illegal, but was wholly indefensible, and when it was called to my attention I directed the Bureau of Navigation to put an immediate stop to the practice which, if not stopped short, would justly bring commissions in the Naval Reserve class 4 into disrepute, and cause just criticism of the Navy for handing out commissions to those who had no qualifications for them.

That order brought down on my head the hostility of those seeking an easy entrance into the Navy with a commission, and of some officers who had been ladling them out. There were those who declared that my order was wrong and would retard the work of the Navy. Already commissions in the Naval Reserve had been cheapened by lax issues of commissions to men who ought to have been enlisted in the ranks and told that the only way to receive a commission was to earn it by service in lower grades. Most of the men commissioned were capable and fine and made excellent records after we trained them in schools and afloat. But it would have been better for most of them and for the Navy if their early training had been in the ranks and they had secured their promotion by demonstrating their capacity. Many were so promoted and their service in the ranks made them better officers. I am not, of course, speaking of those who had nautical experience, were accountants, doctors, or experts, but of youths just out of school, or office, or shop, who lacked the training or knowledge to fit them for receiving commissions.

It was plainly my duty to see to it that commissions should be confined only to those qualified and who had some special experience that fitted them for the task in hand. The order to which reference has been made stopped the flood of applicants who desired the honor of a commission without possessing the qualifications that should always be demanded before commissions are issued. It turns out, however, from testimony before your committee, that, in spite of my order, a number of such commissions were issued, but the order prevented the threatened scandal and, except where disobedience of the law and my order admitted a favored few, the officers who came into the Reserve were fit and qualified. The capable men who were making good records in the Navy, and that included most of them in class 4 as in other classes, were as jealous for the honor of the corps and for the exclusion of those not qualified as was the Secretary of the Navy. They knew and you know the terrible pressure from many sources, particularly in the early part of 1917, to open the floodgates for Naval Reserve commissions for youths who knew nothing that qualified them for receiving commissions. Later on, after the selective

draft had been introduced (it was introduced April 17, 1917, and passed the Congress May 18, 1917, and was signed by the President on the same day, neither the President nor the Navy Department delaying a minute in pressing measures to win the war), there came a greater rush for enrollment, particularly in class 4 in the Naval Reserves. Officers of the War Department and others pointed out that part of this rush was because men who up to that time had not enlisted in either branch of the service were rushing to enlist in class 4 of the Naval Reserve, and they said it threatened to become "the slacker's Paradise." At that time, having already more men in the Navy than we had training facilities, I ordered enrollments held up. Inasmuch as the President had urged the selective draft to be applied alike to Army and Navy, I felt that the Navy ought not to defeat that method of securing personnel by accepting, before that law went into effect, more men than the Navy could train, but to adopt the spirit of the selective draft even before it became a law. It was not a very pleasant duty to halt those who hurried to enlist at that time. Most of them were fine young fellows who became splendid fighters.

In the Bureau of Navigation there was hostility to including the Navy in the selective-draft act. They wished it to apply only to the Army, and as their wish could not prevail, they were anxious to enroll as reserves all who applied. We already had more men than we could house and train. My belief was that the selective draft was a thoroughly democratic measure, that young men who came into the service under that law were coming as patriots, and that no distinction should be made between them and those who had enlisted before that law was signed. I particularly thought it would be contrary to the spirit of that righteous law to overcrowd the Navy in order to enroll as reserves those who frankly said they wanted to come into the Navy as volunteers rather than to come in under the selective draft. The policy I pursued was the right policy, in accord with the spirit of the selective-draft law, and it was generally approved then and it will stand the test of time.

INCREASE OF OFFICERS IN THE NAVY SINCE 1913 AND PROMOTION OF MEN FROM THE RANKS.

The chief source now, and practically the only source before 1914, for securing officers for the Navy was from the graduates of the Naval Academy. It requires a four-year course at the Naval Academy before a commission as ensign can be won. Whatever lack of trained and experienced officers there was in 1917 was due to the fact that the number of appointments as midshipmen was too small prior to 1913. Every criticism you have heard of the lack of a sufficient number of efficient naval officers goes back to the policy pursued in securing adequate material in enough midshipmen at Annapolis prior to 1913. Officers of the line can be obtained in no other way except from the ranks, and until 1913 the number promoted from the ranks was negligible. The adoption of schools and encouragement for men in the ranks began in 1914, and the encouragement thus given increased the number of officers from the ranks, but still the officer strength depended chiefly upon the number of midshipmen at the Naval Academy.

The following shows the number of midshipmen at the Naval Academy from 1909 to 1919, inclusive:

Oct. 1, 1909-----	774	Oct. 1, 1915-----	918
Oct. 1, 1910-----	758	Oct. 1, 1916-----	1,231
Oct. 1, 1911-----	732	Oct. 1, 1917-----	1,435
Oct. 1, 1912-----	768	Oct. 1, 1918-----	2,120
Oct. 1, 1913-----	861	Oct. 1, 1919-----	2,086
Oct. 1, 1914-----	916		

It is not possible to give the number for 1920, inclusive, as no midshipmen have yet entered the Academy for this year.

The first piece of naval legislation enacted after I became Secretary of the Navy looked to officer material at the Naval Academy. The law authorizing each Congressman to appoint two midshipmen was to expire on the 30th day of June, 1913, and the law would revert to a single appointment for each Congressman thereafter. I wrote to the chairman of the Naval Affairs Committee, calling attention to the expiration of the law, pointed out how it would reduce the officer material, and requested the enactment of a law by which each Member of Congress could that year and succeeding years appoint two midshipmen. The following act was passed by Congress and approved by the President July 9:

That after June 13, 1913 and until June 30, 1919, there shall be allowed at the Naval Academy 2 midshipmen for each Senator, Representative, and Delegate in Congress, 1 for Porto Rico, 2 for the District of Columbia, and 10 appointed each year at large.

In the latter part of 1913 I made earnest recommendation to Congress to open the doors of the Naval Academy to capable and ambitious young men in the enlisted personnel. I showed that their practical training would be of immense advantage, and that an American Navy ought to give American opportunity to every enlisted man to enter the Academy and have equal chance with other youths to win a commission by training as a midshipman. It was a new idea and when presented to the House Committee on Naval Affairs met with approval. As a beginning the naval bill approved June 30, 1914, incorporated the recommendation in this language:

Hereafter, in addition to the appointments of midshipmen to the United States Naval Academy as now prescribed by law, the Secretary of the Navy is allowed 15 appointments annually from the enlisted men of the Navy, who are citizens of the United States, and not more than 20 years of age on the date of entrance to the Naval Academy, and who shall have served not less than 1 year as enlisted men on the date of entrance.

I should state that the bill, as it passed the House, authorized the appointment of 25, but when the bill reached the Senate there was opposition to the Americanized idea by a few Senators. In order to secure the immediate adoption of the principle and open the door to youths already in the service the smaller number of 15 was acquiesced in.

Feeling the need of training more and more officers, in the fall of 1915 I recommended that every Congressman be authorized to appoint 3 instead of 2 midshipmen, and the following act was approved by the President February 15, 1916:

That hereafter there shall be allowed at the United States Naval Academy 3 midshipmen for each Senator, Representative, and Delegate in Congress, 1 for Porto Rico, 2 for the District of Columbia, 10 appointed each year at

large, and 15 appointed annually from the enlisted men of the Navy as now authorized by law.

To still further provide for line officers in the naval bill approved August 29, 1916, the following provision was incorporated:

Hereafter, in addition to the appointment of midshipmen to the United States Naval Academy, as now prescribed by law, the President is hereby allowed 15 appointments annually instead of 10 as now prescribed by law, and the Secretary of the Navy is allowed 25 appointments annually instead of 15 as now prescribed by law, the latter to be appointed from the enlisted men of the Navy who are citizens of the United States, and not more than 20 years of age on the date of entrance to the Naval Academy, and who shall have served not less than 1 year as enlisted men on the date of entrance: *Provided*, That such appointments shall be made in the order of merit from candidates who have, in competition with each other, passed the mental examination now or hereafter required by law for entrance to the Naval Academy, and who passed the physical examinations required before entrance under existing laws.

The reports from Annapolis showed the wisdom of the appointment of midshipmen from the ranks, most of those making good in the real American way. Therefore, I recommended that 100 enlisted men be eligible annually for appointment as midshipmen, and Congress heartily cooperated and the authorization was contained in the following act approved March 4, 1917:

Hereafter, in addition to the appointment of midshipmen to the United States Naval Academy, as now prescribed by law, the Secretary of the Navy is allowed 100 appointments annually instead of 25, as now prescribed by law, to be appointed from the enlisted men of the Navy who are citizens of the United States, and not more than 20 years of age on the date of entrance to the Naval Academy, and who shall have served not less than one year as enlisted men on the date of entrance: *Provided*, That such appointments shall be made in the order of merit from candidates who have, in competition with each other, passed the mental examination now or hereafter required by law for entrance to the Naval Academy, and who passed the physical examination before entrance under existing laws.

As soon as war was declared Congress gave even more hearty cooperation, and the following act was approved April 25, 1917:

That, in addition to the number of midshipmen now authorized by law, there shall be appointed during the period from the date of passage of this act until September 1, 1918, one additional midshipman for each Senator, Representative, and Delegate in Congress. Nominations shall be made for these vacancies by the Senators, Representatives, and Delegates concerned for any regular or special examination that may be ordered before that date.

In the fall I recommended still further increase in the number of midshipmen, and this addition was authorized by Congress in the following act approved December 20, 1917:

That hereafter there shall be allowed at the United States Naval Academy 5 midshipmen for each Senator, Representative, and Delegate in Congress, 1 for Porto Rico, 2 for the District of Columbia, 15 appointed each year at large, and 100 appointed annually from enlisted men of the Navy, as now authorized by law.

Last year's naval bill increases the number of midshipmen allowed for the District of Columbia from two to three, and authorizes five midshipmen from Porto Rico, to be appointed on the nomination of the Resident Commissioner.

This provided that each Congressman should have the appointment of five midshipmen.

This record of preparedness, begun in May, 1913, to provide officer material and make practical men eligible for commissions is a

record that gave large increase in officers. If such provisions had been adopted prior to 1913, the number of trained officers when war was declared would have given the Navy an adequate number of experienced officers. Instead, prior to 1913, the number of midshipmen was too small to insure enough officers for the Navy, which was rapidly increased after 1913. As showing the previous short-sighted policy and how it adversely affected the Navy in the World War, in his testimony before your committee, Admiral McKean said:

The officer shortage dates back, in my opinion, to the act of August 5, 1882, which law provided for the honorable discharge of a large number of graduates of the classes of 1881, 1882, 1883, 1884, 1885, 1886, and 1887. At the same time and by the same law, through the elimination of cadet engineering appointments, the number of appointments to the Naval Academy were reduced by 25 each year. The total effect of this law in 35 years of its operation undoubtedly reduced the number of commissioned officers available at the time we entered the World War by about 750. The shortage of officers commenced to be felt in the service about 1893. It grew progressively worse, in spite of increases in appointments to the academy from time to time.

The responsibility upon the Secretary of the Navy and Congress is to make provision for the education and training of enough midshipmen to give sufficient officers for a growing Navy. It is the responsibility of naval officers to create, train, and graduate them. The following statement giving the number of graduates year by year since 1900 shows how the big increase after the measures enacted since 1913 by Congress detailed above were first put in operation:

1900-----	59	1905-----	114	1910-----	132
1901-----	67	1906-----	116	1911-----	194
1902-----	59	1907-----	210	1912-----	158
1903-----	49	1908-----	201		
1904-----	62	1909-----	175		

In 1913 I became Secretary.

1913-----	140	1916-----	178	1919-----	467
1914-----	154	1917-----	386		
1915-----	183	1918-----	199		

The best source for securing officers in addition to the graduates from the Naval Academy is, of course, from the naval ranks by the promotion of men who had made good through the various steps from enlisted men to noncommissioned officers. The opportunity for such recognition of merit in these practical and well-qualified men was not afforded before the war to the extent it should have been, and even after war was declared the prompt utilization in commissioned rank was postponed until legislation could be secured. But I directed the Bureau of Navigation, in issuing commissions, to give first consideration to capable men trained in the Navy, who had shown their capacity and stuff by winning promotion from seamen to the highest noncommissioned rank. The acid test of naval efficiency is actual war. Hundreds of men from the ranks were commissioned and they more than made good. Officers frequently told me of their delight in seeing men they had trained as seamen filling positions as captains on ships and demonstrating that they were worthy of the commissions they held. Some of them could not have passed an examination in higher mathematics, but their practical knowledge and experience more than compensated for any lack of book learning. A great man

once said to me: "It does not matter where a man is educated. The all-important thing is whether he is trained to be master of the job he undertakes." By that standard hundreds of men from the ranks measure in efficiency to graduates, and I have asked this Congress for authority to transfer them from temporary to permanent commissioned officers of the Navy, and I have found that this recommendation meets the approval of men who know much of naval needs.

The act of May 22, 1917, gave authority to promote capable enlisted men and others to temporary commissions in the regular Navy. We had no authority before that date to promote regularly enlisted men to commissions; except by passing the most rigorous examinations. Very few could qualify, because there were no schools to train them. After schools were started more of them could pass the examination, but the number was very small. I asked Congress for authority to promote enlisted men and warrant officers whose experience and ability justified their promotion. Congress gave the authority in the bill in these words:

Additional commissioned officers in the Navy and Marine Corps, based upon the temporary increase herein authorized in the number of enlisted men, shall be temporarily appointed by the President, in his discretion, with the advice and consent of the Senate, not above the grades and ranks of lieutenant in the line and staff of the Navy and major in the Marine Corps, the distribution in said grades and ranks to be made in accordance with the provisions of the act of August 29, 1916: *Provided*, That all temporary original appointments shall be made in the lowest commissioned grades of the line and staff of the Navy and Marine Corps, exclusive of commissioned warrant officers, and that there shall be no permanent or temporary appointments in or permanent or temporary promotions to any grade or rank above that of lieutenant in the Navy or major in the Marine Corps by reason of the temporary appointment of officers authorized by this act in excess of the total number of officers authorized by existing law or on account of the increase of enlisted men herein authorized: *Provided further*, That during the period of the present war the deficiency existing prior to the passage of this act in the total number of commissioned officers of the Navy and Marine Corps authorized by the act of August 29, 1916, may also be supplied by temporary appointments in the lowest grades and by temporary promotions to all other grades until a sufficient number of officers shall be available for regular appointment or promotion in accordance with existing law: *Provided further*, That temporary appointments as warrant officers of the Navy may be made by the Secretary of the Navy.

As soon as authority was obtained I directed the Bureau of Navigation, before giving commissions for line duty to any men in class 4 of the reserve, to promote the regular Navy men who were qualified. This direction was given as soon as the department had the authority, but was not carried out as promptly as I directed. Some noncommissioned officers protested to me that young and inexperienced men were given commissions over them, while they secured no commissions. I directed the Bureau of Navigation to give preference to fit men already in the Navy. The explanation of the delay given to me in the summer of 1917 was that the leading petty officers were so badly needed in the duty they were performing they could not be spared. That explanation did injustice to the experienced men, who were in many respects the backbone of the Navy, and I directed the Bureau of Navigation that it was our duty to give them the promotions, because they were far better qualified than men in class 4 of the reserve. As the result of this direction commissions were issued after July as follows:

Number of enlisted men of the Regular Navy promoted to temporary commissioned and warrant officers from May 22, 1917, to July 1, 1918, following the law of May 22, 1917.

During the month of—	To warrant officers.	To commissioned officers.	Total.
July, 1917.....	376		376
August, 1917.....	2		2
September, 1917.....	948		948
October, 1917.....			
November, 1917.....	124		124
December, 1917.....	1	197 82 32 59 25 26 30 29 17 21 36 30 27 28	180
January, 1918.....	177		268
February, 1918.....	164		215
March, 1918.....	107		166
April, 1918.....	155		193
May, 1918.....	82		148
June, 1918.....	120		175

¹ Promoted first to temporary warrant officers and then to temporary commissioned officers.

² Promoted directly to commissioned officers.

RECAPITULATION.

Total temporary commissioned officers appointed during above period.....	569
Total temporary warrant officers appointed during above period.....	2, 256
Temporary warrant officers subsequently promoted to commissioned officers during above period.....	264
Grand total of temporary officers, commissioned and warrant, appointed from enlisted men during above period.....	2, 581

Early in the war, when bright and patriotic young men of real ability were coming into the service it was seen that many of them could be made capable officers with a short course at Annapolis, and a Reserve Officers' School was opened at Annapolis. Admission was made by competitive examination so that the fittest only would be admitted to this school. The course was strenuous and the young men who matriculated learned with a rapidity that both surprised and gratified the naval authorities. The stimulus of war made these young men keen to learn and the zeal of officers and instructors gave them every facility and aid. This Reserve Officers' School was opened in the spring of 1917, shortly after the declaration of war, and it graduated 1,622 officers as ensigns, and not a few of them by display of high officers quality secured promotion and responsible assignment before the end of the war. It was not only to train officers for line duty that the Naval Academy made large contribution, for we established there also a Paymasters' School in the summer of 1917 and 400 young men of fine ability and useful service graduated.

The department established scores of other schools in different parts of the country, some of them connected with universities and colleges, where ambitious youths were so well trained that they were able to fit themselves for commissions. Indeed every training station in the Navy was a school and all of them trained enlisted and enrolled men who obtained commissions when they demonstrated their ability to command. It was in these practical ways that the Navy secured needed additional officers from civil life. To be sure, at first some were commissioned without such training, but all who had nautical,

technical, or accounting experience at once made good. Most of the others learned in time, but it would have been better for them if they had earned their commissions afloat or in training than to have entered the service as untrained officers.

In the reserve force I directed that a rule be established that so far as possible officers should be promoted from the enlisted men. Every practicable assistance was given to them to qualify and a large number of officers' training schools were established in various sections of the country, in addition to the biggest ones at Annapolis and Pelham Bay. In the reserve force there were commissioned about 22,000 line officers. Of this number about 13,800 were promoted from the enlisted men. In the case of medical officers, naval constructors, and civil engineers most of these officers came from civil life as they had already received special education in technical training in connection with their various professions.

SCHOOLS ENCOURAGED—THE POLICY OF EDUCATING OUR ENLISTED MEN AND RESERVES.

I had been in office only a short time when I became aware of the need of more systematic instruction of the youths who enlisted in the Navy. I believed then, and my conviction has increased every day since, that the Navy ought to provide for promotion to commissions to the brightest and most capable men in the enlisted force. Looking back over the previous four years, I found that only three men had been able to pass the examination for ensign. In the succeeding three years after I became Secretary of the Navy 13 were appointed. In order to give an open door for enlisted men to rise, I saw that we must establish schools in our training stations and on all ships, where every enlisted man would study arithmetic, history, geography, and other elementary branches, and be instructed also in technical and practical branches. In June, 1913, I visited the Naval War College and Training Station at Newport and made a thorough inspection. I found the War College had only about as many students as it had instructors, and that its advantages were not afforded to officers in the Navy. After conference in Newport with Admiral W. L. Rodgers, president of the War College, who had excellent ideas and wise views, and, upon my return to Washington, with Admiral Victor Blue, who was in accord with the policies of Admiral Rodgers, I announced that we would either close the college or make use of it.

Therefore more officers were ordered to Newport to take the course, and a moribund institution had the breath of life imparted to it. At the Newport Training Station I went thoroughly into the matter of training and teaching the apprentices and new recruits. I found the drills and calisthenics were carried on excellently, but there was no chance for youths with little education to study history or geography or other branches necessary as a foundation to enable them to make ready to pass examinations leading to a commission. Upon my return to Washington orders were given for the establishment of schools at training stations, and the first were started in Newport, July 1, 1913, under the intelligent and wise direction of the able officer, Capt. Roger Welles (now Admiral Welles, who is in charge of the new naval development at San Diego), who had been selected for

this new and important innovation. Soon after signal, radio, and hospital apprentice schools were established in the Newport Training Station, then at other training stations and on board all the ships. As a result of this instruction more and more young men qualified for ensign, and I secured from Congress authority first to appoint 15, then 25, and then 100 enlisted men annually as midshipmen to the Naval Academy. The policy of extending education to the enlisted personnel not only before the war gave the Navy better educated and better trained men and enabled some to win promotion, but when the stress of war came we found that those enlisted men who had taken advantage of these schools were better fitted for promotion, and hundreds of them were advanced to temporary commissions and more than made good in places of importance and responsibility. I am asking this Congress to provide that those who made good as temporary commissioned officers shall be given permanent appointments. The number promoted from the ranks as either warrant or commissioned officers was more than 11,000. As evidence of the wisdom of appointing enlisted men as midshipmen at Annapolis, I call your attention to the following extract from my annual report of the Secretary of the Navy for 1919:

FORMER ENLISTED MAN LED CLASS OF 1919.

The careers of the midshipmen who were appointed from the ranks has more than justified this departure from the old policy. The star graduate in the class of 1919 obtained his appointment by merit from the enlisted ranks. Other things being equal, such experience helps in the making of an officer. Fewer enlisted men have secured appointments as midshipmen than was expected because the stress and rigorous service of war left little or no time for study and preparation. Opportunity for instruction for ambitious youths in the service is now given to all who make application to stand the entrance examination.

ALL APPOINTMENTS WILL COME FROM THE RANKS.

In my annual report for 1917 I outlined what must, in my judgment, become the future American policy of securing and training naval officers. It is a departure from precedent, but the experience of war has more and more convinced me that the policy is a sound one, in keeping with American ideals. That plan was outlined as follows (pp. 18, 19, 20, Annual Report of the Secretary of the Navy, 1917):

SHOULD BEGIN AT THE BOTTOM.

The American ideal is that men shall obtain high station by beginning at the lowest rung in the ladder. They should obtain place and position by first mastering the primary duties. Is not this necessary to fit one for higher rank? Four years ago this principle impelled me to recommend to Congress that a certain number of enlisted men be appointed as midshipmen. Congress approved the idea. Though there had been no systematic instruction on the ships to prepare for the entrance examination, a number qualified. Their record at the Naval Academy has demonstrated the wisdom of the departure. So strong was the approval of this American plan of selection for appointment to Annapolis that at the last session of Congress authority was given to appoint 100 enlisted men annually. With the present educational advantages, which will be enlarged in peace times, this will give a large number of midshipmen the experience that every man should have before he undertakes command. The best training for command is to be subjected to the discipline an officer must enforce.

ALL APPOINTMENTS WILL COME BY PROMOTION.

The truth is that the day will come when all appointments to the Naval Academy will come by promotion from the enlisted personnel. Why not now? There are but two arguments against it, and only one of them is tenable. The first is that Congressmen would be slow to surrender their right of appointment. If, however, they are persuaded that the good of the naval service would be promoted by surrendering the right of appointment, it is not to be believed that Congress would hesitate to vote for the change. Indeed, not a few Congressmen have voluntarily surrendered the right to make their nominations by holding competitive examinations and naming the young man who stood the best examination. The only valid objection to naming the midshipmen by competition among the enlisted personnel is the fear that it would do away with the excellent plan by which every State and congressional district is now guaranteed equal representation in the Naval Academy. It would be a mistake if anything should change this system, which has made the Navy truly representative of the whole country in its commissioned personnel. To permit appointments without regard to place of residence might deny to the Navy as many naval officers from Iowa as from Massachusetts, for example, and experience has shown that young men from the interior, who never know what salt water is until they take their first Annapolis cruise, make equally as able officers as those from seacoast States. Is there not some practical way to retain the equal proportion to all the States and at the same time gain the immense advantage of opening a naval career alike to every ambitious young man in America? Of course such a plan can be formulated. The inability of many young men of real stuff, ambitious for a naval career, to secure a congressional appointment first induced me to urge Congress to give the Secretary of the Navy the right to appoint capable enlisted men to the Naval Academy. Now the number has been increased to 100, and, properly safeguarded by giving the appointments in the first instance to the States in proportion on their population, there is every reason why, in democratic America, an equal chance to become an admiral should not be within the reach of every ambitious youth.

WOULD INCREASE ENLISTMENT OF BEST YOUTHS.

If the only open door to instruction at the Academy was through regular enlistment and a year's service as a seaman, who doubts that the ranks of the enlisted personnel would be thronged by youths with love of the sea, ready and willing to make any sacrifice to earn a commission? The Navy would then truly be the highest example of the American doctrine that opportunity and promotion are reserved only for those who establish fitness for command. Fewer men would then enter the Naval Academy "to secure an education," and fewer still would "bilge." No man would pay the price of an appointment unless he loved the naval service. The naval officer to-day is a select man, trained, and ready, but if no man entered the Academy who had not been trained in the hard school of seafaring experience and by competition with 200,000 youths, would there not be born that enthusiasm for excellence that would insure a still higher standard of efficiency in the service?

STRONG REASONS FOR SCHOOLS FOR THE INSTRUCTION OF ALL ENLISTED MEN.

The demands of the war, of course, made impossible the instruction at training stations and on shipboard, but the policy is a fixed and settled one and is essential to the highest efficiency of the Navy. Since the war the system has been adopted on the best possible scale in the Marine Corps, and the following statement of the hearings of the Secretary of the Navy before the House Naval Affairs Committee tells how these schools are doing their important work, but embraces also the able argument in favor of schools for men in military service made by Gen. Lew Wallace in a letter to Hon.

John A. Bingham and presented to the Senate, April 11, 1866, by Senator Charles Sumner:

MARINE BARRACKS,
Quantico., Va., Friday, March 5, 1920.

Remarks made on the occasion of the visit of the Committee on Naval Affairs, House of Representatives, to Quantico:

REMARKS OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY.

Secretary DANIELS. Mr. Chairman and gentlemen, in the concluding days of the war I had the pleasure one night of attending a patriotic dinner in Baltimore, and I undertook to tell some of the things which the men of the Navy and Marine Corps had done to win the Great War, the victory of which we were soon to celebrate. When I had finished I think most of the audience were sure the marines had won the war, so much so that when Gen. Finney, the distinguished surgeon of Baltimore, who was a general in the Army, came to speak he referred to my tribute to the marines and to the sailors, and said that as he listened he wondered how he ever happened to get into the Army, which seemed to have played so small a part in the victory, though he believed from the figures there were about 4,000,000 men in the Army and only 75,000 marines and 500,000 sailors. He said that reminded him of an incident that happened when he was in France during the war. You know, he was one of the great surgeons, one of the great doctors who gave themselves to alleviating pain and giving inspiration not only to the men of our Army and the Marine Corps but to the men of the allied armies. He said that after every engagement the men who had been wounded were taken into the nearest hospital, whether British, French, or American, and after first aid had been given by the attending physician it was the habit of the American surgeons to visit the British and French hospitals to find any Americans who had been wounded, not only to cheer them by having one of their own countrymen there, but also to give them medical care and attention. He said he went into a French hospital and passed down the line of cots where most all of the wounded were Frenchmen. But he saw a young man, wounded, lying on a cot in the corner, looking very pale, and he walked up to the young man and touched him on the shoulder and asked, "Young man, aren't you an American?" And the young man answered, "No; I am a marine." [Laughter.]

That, I think, is the spirit that has made the Marine Corps the aristocrat of the military service. He feels that a Marine is something more than an American; that he fights for humanity; that he is ready to fight and to fight with courage and chivalry in the Army or Navy, with American troops or with French or British or Italian troops, or the troops of any country fighting for liberty.

It is a real delight for me to be here to-day and to have the honor of coming with the members of the naval affairs committee—our bosses, young gentlemen, and we look up to them as "Fathers in Israel," and they also furnish us our meal ticket. We naturally give them deference, because they are our superiors. But those of us who have been in touch with legislation concerning the marines and the Navy have learned that the members of the naval affairs committee do not enter upon their services in any purely perfunctory way, but that they have taken an interest in strengthening the Navy and the Marine Corps because they believe in it; they study it; they know it; and they are really comrades and friends and elder brothers. Therefore, we welcome them here as worthy to be enrolled in the corps. [Applause.]

I remember that during the first months I had the honor to be the Secretary of the Navy, the Secretary of War (then Judge Garrison), coming back from Panama after a brief visit of inspection at the canal, came into my office and said, in substance: "Daniels, I have learned something about what soldiers ought to do, and I want to tell you about it. Perhaps you already know it. I am just back from Panama, and I found a young marine officer in Panama conducting a school there. He was teaching the marines in camp there Spanish, and they were learning rapidly. It opened my eyes to what might be done, and I am going to advise Army officers to go down to Panama and learn from Gen. Smedley Butler how to teach men in the Army. [Applause.]

From that time on I have kept in touch with the spirit of the Marine Corps—the spirit, gentlemen, that is essential if our military service is to attract and

hold—and Chaplain Niver very truly emphasized the word "hold." We have permitted too many men to go out of the Navy and Marine Corps because they did not see in it opportunities for advancement to which every American youth is entitled. The world is learning, I tell you, that military service which does not send men back into civilian life better trained, better educated, and better fitted, is a failure and will not attract the finest young men in America.

The school organized here is the very basis, the very bottom, the very foundation of Americanism. That is the word in America to-day—Americanism. We have had too much un-Americanism in military affairs. The gulf between officer and man has been too wide, it has been too fixed, and only very extraordinary men have been able to span that gulf. Here, to-day, we have an object lesson of what must come in the Navy, the Marine Corps, and the Army, if our military establishment is to render the best service and be truly American. Here we have the Naval Affairs Committee, the general commandant of the Marine Corps, and other high officers of the corps, noncommissioned officers, and men sitting down at the same table as brothers and friends. [Applause.] When that is universal we shall have a spirit in our military service that will attract and hold the fittest young men in America, and we will not do it until that democratic spirit dominates and controls.

I had the pleasure a few days ago of being present at the Naval Affairs Committee hearing, when Gen. Lejeune was also present. Gen. Lejeune gave an illuminating statement of what was being done at Quantico, not only in the schools, but in the essence and spirit of a new idea, or rather the adaptation of an old idea to military instruction. I recalled to the committee that some years ago, when the Naval Affairs Committee and the Secretary of the Navy together had sensed what is being put in practice here, and there were not wanting then many men who said that all this school business in the Navy was out of place; that boys who came into the Marine Corps and the Navy to keep from going to school, and if you sent them to school they would desert. A writer of some reputation came to see me and said that all this school business to educate men in the service would unfit them for the job they had to perform; that it ought to be stopped before it ruined the Navy. He said, "You are not going to obtain men to coal a ship if you teach them history and grammar. You are not going to find men to do that kind of work if you educate them." I said to this gentleman, "Don't come and talk to me about that. If you don't believe that a man can coal a ship better or shoot better, or do any job, high or low, better for education, you go to Massachusetts and tear down the statue of Horace Mann and then come back and talk to me. No Americanism has the right to call itself by that proud name that does not seek to uplift, strengthen, and make more efficient every man in America. [Applause.]

With that spirit in our marine service, our naval service, and our Army, we shall before a great while attract into the service the flower of the country, and we will hold those of good judgment and ambition by putting before them the opportunity of the highest advancement. That day is past in America when preferment is exclusively in the grasp only of those who have been to Annapolis and West Point. We shall open the doors of promotion to men from the ranks. We have seen in historic wars that some of the greatest soldiers of natural genius and ability have made themselves superior to men of greater opportunities. We shall lift up always and never pull down. We shall open no doors of advancement to men who are not worthy and fit, who do not qualify themselves by study to make themselves the equal of those who have enjoyed the best advantages.

In the hearing before the Naval Affairs Committee the other day I made reference to a speech made in Congress in 1866 by Charles Sumner and the resolution he introduced in 1866, just after the Civil War, when the Army was finding it difficult, as now, to secure enlistments. He proposed in his resolution that at every Army post and garrison the officers should teach the men the rudiments of education, and accompanied that resolution by a letter of Gen. Lew Wallace, quite as distinguished an author as a fighting man—the ablest, strongest, and wisest document written on military instruction that I have read. I am going to send you, Gen. Butler and Gen. Lejeune, a copy of that, and I trust you will put it in the hands of these fine young marines, so that they may see that we are putting into practice the vision of Charles Sumner and Gen. Lew Wallace. [Applause.]

APRIL 11, 1866.

EDUCATION OF SOLDIERS.

Mr. SUMNER. I send a resolution to the Chair and ask for its adoption now:
Resolved, That the Committee on Military Affairs and the Militia be instructed to consider the expediency of providing a system of education for soldiers in the Army of the United States, so that the time not occupied in post or garrison duties may be employed in moral and intellectual improvement, to the end that the Army may be a nursery of officers and also of citizens.

There being no objection, the Senate proceeded to consider the resolution.

Mr. SUMNER. Before the vote is taken I wish to say that my attention has been called to this question by a letter which I saw in the papers this morning, from Gen. Lew Wallace, addressed to Hon. John A. Bingham, of the other House. It seems to me that this letter contains some important and practical suggestions, if they can be carried out. I think they must elevate the character of our Army and give to it truly the character of citizen soldiers. I was so much struck with them as I read the letter this morning that I have drawn up this resolution that I might bring the subject in the most formal way before the Committee on Military Affairs of this body.

The resolution was agreed to.

(The letter of Gen. Wallace, referred to by Senator Sumner, as follows:)

WASHINGTON CITY, *March 31, 1866.*

HON. JOHN A. BINGHAM.

DEAR SIR: I much regret that your kind note of the 29th instant, informing me of your arrangement for my appearance before your House Military Committee, to submit certain views touching the Army bills, was received too late to enable me to avail myself of it. It is not improbable, however, that the purpose will be as well subserved by putting them briefly on paper.

So far, not a suggestion has come to my notice touching "reconstruction" that is not more or less founded upon the loyalty, present or prospective, of the people of the South, of the value of which as a basis of security for the future we ought all by this time to be fully assured. In my judgment, our certain guaranties are in the Army and militia. When all things else fail, they are the last resort. As a consequence, their thorough organization is a vital part of the great work before this Congress.

It can scarcely be doubted that your committee, like that of the Senate, is alive to the importance of this subject; the speedy presentation of their respective bills is sufficient on the point. I hope, however, I will not be suspected of a want of respect if I hazard the opinion that both those bills fall far short of what the exigency demands. In what way they fall short can be best got at by stating their very manifest oversights; which are—

1. A neglect of the military lessons of the war.
2. The reorganization as proposed has no reference whatever to the loyalty, intelligence, and individual improvement of the rank and file.
3. The bills disclose no attempt to make the service honorable, so as to secure the enlistment of a class of citizens who from social position, employment, or education have a right to consider themselves respectable, and to whom for that reason you can address yourselves with the confident expectation of finding reliability under all circumstances. Pardon me if I go so far as to add that, from a study of the bills, it would really seem that in the judgment of your committee an Army of a hundred thousand rebels and aliens was as desirable and trustworthy as an Army of like strength composed of loyal citizens.

4. The bills are evidently framed upon the idea that there will be no difficulty in filling the ranks of the Army to any desired complement, whereas the reverse is the truth. The Regular Army now consists of 19 regiments of Infantry, 6 regiments of Cavalry, and 5 regiments of Artillery, which, with not more than one or two exceptions, if any, have not, as I am informed, been full even to the minimum. Further information on this subject authorizes me to say that at this date, so far are they from being full, some of them have scarcely enough enlisted men to constitute a battalion of a regiment; and this, too, while there are a million or more of young men in the country trained, veteranized, and habituated to the military life. It is a mistake to suppose that because the tables of the Secretary of War are groaning under applications for commissions, and because field officers of volunteers are to be found gladly

accepting second lieutenantcies in the Regular Establishment, therefore the thousands lately discharged are waiting eager to crowd the ranks of the proposed 55 new regiments. Indeed, so familiar am I with the volunteers as a class, now happily engaged in civil pursuits, that I risk little if anything in the broad assertion that you will have even less success in completing the additional regiments than your predecessors had in completing the old ones. Such a statement, in face of the common boast, or rather, in face of the absolute demonstration of the fact that ours is a martial people, is so extraordinary that nothing more can be required to establish the further fact that the present military system, as respects the rank and file, is founded upon egregious errors.

Passing from these oversights, I invite attention, in the next place, to some of the errors alluded to.

1. To find the true standard by which to gauge the rank and file of the Army you must look to the volunteers, whose superiority consisted chiefly in such qualities as intelligence, making each man quick to learn whatever is required; pride of character, holding him always to the line of duty; and citizenship, which invested him with a direct personal interest in every issue at stake. It is not saying too much that to these qualities of the volunteer private soldier, next to the blessing of Providence, we owe the life of our Government to-day; and that system, by whomsoever proposed, which falls now to incorporate them into the rank and file of the organized Regular Army, is unworthy the American people, at the same time that its adoption or continuance puts in needless hazard all we hope in the future. Your bill, like that of the Senate, is profoundly oblivious of the fact that one man can be a better soldier than another; literally, it has no standard; according to its philosophy the scarecrows whom Falstaff did not march through Coventry are as good as the immortals who followed Sherman to the sea.

2. The most certain and just method of filling the Army, and keeping it full, and at the same time of so composing it as to incorporate into its ranks the qualities mentioned, is not by draft or ordinary recruiting, but by adopting a system which will make the service what it ought to be to every private soldier, viz, a place of personal as well as public advantage and in the highest degree honorable. To this also your bill is oblivious.

Of these lessons, the first one ought to commend itself without a word of comment. As to the second, the question it presents is as to its practicability. At the risk of startling your committee, I will venture to assert that this question is beyond dispute. It has been tested long, fully, and successfully at West Point, and now the true form in which to put the subject is: What is the best way to extend the system in operation at that excellent academy to the rank and file of the whole Army? And if only to secure for it that gravity of consideration it is entitled to, I beg leave to express the opinion that Congress, requiring now a regular force of a hundred or more thousand men, instead of fifteen or twenty thousand, as formerly, has at last reached that point when it will be compelled to choose one of two alternatives: Either an adequate Army without West Point, or West Point without an adequate Army.

TO EXTEND THE SYSTEM AT WEST POINT TO THE WHOLE ARMY.

That system has three grand features: First, support of the cadet; second, education; third, graduation as officers of the Army.

As to the first feature, the Government already supports the soldier; there need be no additional cost on that account.

As to the second feature, the point is, simply, can the hours of service of a private soldier be so divided as to give him time for study and meditation without interference with his routine duty? Certainly, except when he is on the march. In post or garrison (his home in time of peace) duty seldom absorbs more than one-third of his hours not devoted to sleep. Hence the proverbial idleness of military life. My opinion is that the division of the cadet's time, with trifling modifications, is a complete illustration of what ought to be the division of time in the Army. It is not more difficult to study and play soldier than to study and perform a soldier's duty in fact. For those of your committee not familiar with the subject, I take the liberty of suggesting that you obtain from the superintendent at West Point a report showing the routine duty and instruction there, and from the commandant of some well-conducted and amply garrisoned post a report of the routine of duty for his enlisted men. Comparison of such data will convince any disinterested person that the difference between the routines amounts to this and no more: In the academy every hour is appropriated to duty and in-

struction, while at the posts one-third (most frequently not so much) of the working time of the soldier is occupied by duty and the rest given over to absolute and ruinous idleness. Keeping in mind that what is called duty in the service is performed by the cadet as part of his necessary instruction, by such a comparison you will come to understand, if you do not now, how simple the task will be to devise a system of instruction, blended with duty, which will have the effect to turn every post into an academy and convert every private soldier into a cadet.

Of the details of such a system it is not my purpose now to speak. A board of earnest officers, not idolatrously joined to the old régime, can easily reduce it to form. The branches of instruction will recommend themselves, while the officers and noncommissioned officers of each company should and can discharge the duties of professors and teachers.

As to the third feature. After having, in the way proposed, prepared the private soldier, there can be no sound objection to a law by which the officers of the Regular Army shall be drawn from the ranks exclusively, the commissions and warrants being held, for that purpose, as incentives to the ambition and toil of the enlisted men. The results of the proposed extension are self-apparent. By it you make the service honorable an advantageous to the private soldier, and by holding out inducements, such as education and commissions, you will attract to the ranks the flower of our youth, and in that way assure to the Government reliability under all circumstances. By it you will be able speedily to fill your proposed regiments. By it as a general result, practical military knowledge (not limited to a select caste, few in numbers, and not always faithful) will be scattered broadcast over the country. By it, and by no means least among the considerations, the discharged regular soldier will not be a vagrant or an idler whom society, from fear and distrust, thrusts back to his barracks; on the contrary, his honorable discharge will serve as a certificate of fitness and ability for any civil pursuit and make a welcome addition to every community. By it you will not only get better military service but, as an act of wisest statesmanship, you offer in a constitutional way the coveted opportunity for education to every lad in the land.

Upon your committee are several able and experienced soldiers to whom the mere suggestion of the subject is sufficient, and that is all I have sought to do in this letter.

If the committee think well of the idea and should so desire, I will take great pleasure in preparing a bill for their consideration and action.

Very respectfully, your friend,

LEW WALLACE.

The first school was established July 1, 1913, as heretofore stated, and they were put in operation elsewhere during the summer and fall, and later put into operation in the whole Navy through General Order No. 53, issued October 1, 1913, of which the following is a copy:

[General Order No. 53.]

NAVY DEPARTMENT,
Washington, D. C., October 1, 1913.

1. The Navy Department wishes to put into effective operation an educational and vocational training system for the benefit of the enlisted men of the Navy, both ashore and afloat. As a beginning such schools have already been inaugurated at the training stations, and steps are being taken toward their early establishment on board all naval vessels. In carrying out this system it is the department's purpose that every recruit shall be given at the outset the line of training he wishes to pursue, and when he has made his choice, he shall be assigned to a regular course and be given regular training and instructions along the line of work that he has selected.

2. The needs of the men in the groundwork necessary to their instruction and training along trade or vocational lines will, of course, vary, and as a first step this need will be determined in the case of each individual, and such educational groundwork as is necessary will be given him.

3. After the recruit has been under instruction and training for a sufficient period to determine in which direction he should, with better advantage to himself, be further trained, the commanding officer of the ship or station shall cause him to be assigned to the kind of instruction and training for which he has demonstrated an aptitude.

JOSEPHUS DANIELS,
Secretary of the Navy.

On December 16, 1913, I issued General Order No. 63, giving the detailed plans and orders for instruction on board ship, stating in the first paragraph:

"The following plan for the instruction of enlisted men, petty officers, and warrant officers of the Navy serving on board ship will be put into effect January 1, 1914, with a view to supplying deficiencies in academic education and also to provide systematic means by which all enlisted men and warrant officers may receive the assistance and encouragement in technical branches which may be necessary to fit them for promotion in the Navy or which will better prepare them for civil trades at the end of their period of service afloat."

This general order is of such importance that I will insert it in the record in full.

It was sent out to the service with the following letter of January 3, 1914:

"NAVY DEPARTMENT,
"Washington, January 3, 1914.

"Subject: Inauguration of Navy educational system.

"1. I am inclosing a copy of General Order No. 63, which relates to the comprehensive educational system the department has undertaken to establish in the Navy, just received from the printer. It is being sent in advance of the receipt of the full issue in order that commanding officers may know its requirements at the earliest moment. Requisitions for books considered necessary with which to begin are being filled as rapidly as possible, and it is hoped that there will be but a short interval between the receipt of the general order and that of practically all of the books.

"2. The department relies upon the hearty support of all officers in successfully carrying out the requirements of General Order No. 63 and depends upon commanding officers to put it into immediate execution as far as practicable, using such facilities as they can contrive and without awaiting the receipt of some books which may be delayed.

"3. The Secretary takes opportunity at the beginning of the new year, coincident with the beginning of this comprehensive naval educational system, to express to all officers his confidence in the system as being of the greatest value to the Navy and the country and his confidence in them to carry out its spirit with such zeal and energy that there can be no question of its success."

I think that letter of Gen. Lew Wallace is the most illuminating and able and discriminating argument in favor of the training of men in the Army and Navy that was ever written.

The astounding fact about Capt. Palmer's testimony is that he said he thought the Secretary of the Navy "lacked appreciation of training men in schools." Of course, the contrary was, is, and always has been my position. Not once but many times I have been charged with taking too much interest in education in the Navy. One critical officer once said: "The Secretary wishes to make the Navy a university instead of a fighting machine." That officer never appreciated that the more training a man has and the better education he receives the more efficient he can become in war as well as in peace. Education in the Navy is essential to securing the highest knowledge and skill in the naval profession.

From the day I became Secretary of the Navy until this hour I have zealously sought to promote schools and the training both of enlisted men and officers and these schools were enlarged and multiplied many fold in every line of training during the war. The record speaks for itself. It may be true that an officer in Navigation came into my office at times for approval of certain expenditures for schools or for barracks or other things which I did not act upon until I could ascertain that the money was available, or that I did not approve every identical proposition put up to me, or did not instantly approve every school project presented without investigation and consideration. As to some very costly projects, I required "to be shown." I remember as to some projects presented, I would ask the officer from Navigation:

"Out of what appropriation will you secure the money you ask?"

"I don't know," was sometimes the answer.

"Then secure the act or consult the solicitor and bring back the recommendation," I would say. This sensible and wise policy on my part seems now to have been regarded as "dilatatory."

Again, when some other project was proposed I would inquire:

"What will be the cost of this building?"

"I don't know," was the answer.

"Then ascertain and let me know before I can act."

The answer sometimes was given that the particular thing was essential at that very minute and we had to do it whether we had the money or not. I had an old-fashioned idea that, until we secured the emergency fund or had congressional approval, the department ought to be certain every expenditure was absolutely and immediately necessary, and I always had to know the expenditure was not in violation of law before it was authorized.

This is another article about the value of schools. I present that for the record. (The article referred to is here printed in full in the record as follows:)

NAVY'S SCHOOLS DID MUCH FOR ITS ENLISTED MEN.

The new educational system proved from the first popular with the enlisted men and did a great deal for them, promoting efficiency in their work as well as ambition to excel. Its purpose and workings are described in an account I wrote in February, 1914, which was published in the *Sunday Magazine*, from which the following is quoted:

THE NAVY'S UNIVERSITIES Afloat.

[By Josephus Daniels, Secretary of the Navy.]

A fundamental principle of one of the newer systems of child training has been defined to be that "the personality of the child must be liberated by methods adapted to his individual needs." The definition may be paraphrased to cover one of the underlying motives of the present administration in developing and coordinating the educational system in the Navy. This principle is that "the personality of the enlisted man may be liberated by methods adapted to his individual talents and trend."

We live in a day when the individual is being studied as never before. Not only are his present attainments being built upon to increase his usefulness to society, but his latent forces are being coaxed into flower and fruitage. Every angle at which a man may be developed makes him better fitted for service, and in developing the men of our Navy individually along the line of the natural endowment and the outcropping bend of mind of each I believe a greater efficiency for teamwork is secured which enhances the value of the men behind the guns in the day of battle.

The old adage that "knowledge is power" is trite; but it is just as true to-day as when our forefathers scrawled it in large and awkward letters in their copybooks when they were school children. I believe a man is a better coal passer for being able to parse sentences and bound the States of his country. A radio man will not be the less valuable for having studied the science of electricity—from the time Ben Franklin first lassoed it from the storm clouds with a kite and a key to the day when Field moored the continents alongside of each other with the cable, or when Marconi induced it to whisper words from hemisphere to hemisphere without wires. The lad at the wheel, who keeps the captain on the bridge informed as to whether the ship is on her course or not, must be even a better man for his job if he knows how to triangulate. And the boys behind the guns will be more efficient gun pointers from having a knowledge of azimuth and amplitude as taught by applied mathematics. If the enlisted man does not remain long in the Navy, his usefulness to his country as a citizen is nevertheless enhanced by what he has acquired in the Navy schools.

I confidently expect a ready response from the splendid personnel of the 51,500 sailor boys and 9,921 marines to the new educational régime of the Navy. Such a response was forthcoming when I ordered the winter cruise of the Atlantic Fleet to the Mediterranean instead of to Guantanamo. The word comes back—and it warmed the cockles of my heart—that the behavior of the men has been almost beyond criticism; that they were seen in the art galleries, in St. Peter's, in the Catacombs, and other places of interest, with notebook and pencil, and everyone had a word of praise for Uncle Sam's blue-jacket tourists. The newspaper *L'Eclair*, of Nice, voiced the unanimous good opinion when it said:

"Now that the fine American naval division is leaving us, we should like to place on record our admiration for the remarkably good behavior of the crews, not only on board their ships, where discipline is strict, but ashore. Altogether they behaved like gentlemen.

"Their bearing was irreproachable; their manners showed good education, and frequently rose above mere banal politeness. They taught us Frenchmen,

who pay no heed to the Marsellaise, a lesson when they stood rigidly at attention during the rendition of The Star-Spangled Banner.

"Secretary Daniels, when he ordered the cruise, did more than he foresaw. He intended to educate the crews; but he also educated us by showing us such splendid ships and men."

I expect a ready response to the enlarged educational system the nucleus of which is, of course, the already existing technical schools of the Navy. I am told that a good many boys go into the Navy because they really do not want to go to school at home. I have no idea how large a percentage of the total enlistment this is; but I do not believe it is very great. I want ambitious men in our Navy, which already, I believe, will compare favorably with any body of men in any navy in the world. If there are any who enlisted merely for a four-year bluejacket truancy, I feel confident that sober second thought will convince them that they are wrong, and if they are given the chance to develop along the lines of their individuality that they will develop the spirit of ambition and progress.

A recent and most interesting table shows the number of men in each school grade as given by the recruits themselves upon enlistment, and the percentage in each grade of the whole. The table affects 1,730 apprentice seamen received from July 2 to December 22, 1913, and shows as follows:

Grade.	Number in grade.	Per cent of whole.	Grade.	Number in grade.	Per cent. of whole.
College.....	18	1	Fourth grade.....	190	11
High school.....	312	18	Third grade.....	69	4
Eighth grade.....	173	10	Second grade.....	17	1
Seventh grade.....	380	22	First grade.....	86	5
Sixth grade.....	312	18			
Fifth grade.....	173	10	Total.....	1,730	100

The average ship's crew is a talented aggregation. It is always easy to pick out enough musicians to get a good band. There is always good editorial and reportorial talent aboard ship, as is evidenced by two excellent publications that have come to my attention—the *S. D.*, published by the men of the *South Dakota*, and the *Ark*, by the crew of the *Arkansas*. I am told that nearly every battleship has one. Many are taking correspondence courses with special callings for life in view.

I do not mean that they shall feel that they have no hardships to endure, no sacrifices to make. Concession must be made by every man. The separation from home, the necessary strict discipline of the ship, the frequently cramped quarters, and things of similar character are part of the calling of the sea; but the difference between the present and the past is striking.

An English writer said a hundred years ago, "Why do men go to sea when there are jails ashore?" The food was often full of maggots and the water brackish; so that scurvy was then common. Flogging was the mode of punishment for the slightest offense. Paul Jones won the confidence of his men by flinging a cat-o'-nine-tails overboard, and a Secretary of the Navy from North Carolina (Dobbins) secured the abolition of the whip. But for decades it was resorted to, the offender being taken aft, his outspread arms triced to a grating, and 12 lashes applied. The bilges were more than malodorous, and dead rats bred death. The purser, an appointed civilian, used to charge 12 times the value of what the sailor bought. The cruises were long, and "a battle came as a break in the monotony."

The improvement in conditions aboard ship is a commentary on the advance of civilization, and I hope the men of our Navy, comparing the past with the present, will be inspired to make every possible use of their opportunities.

In developing the educational system of the Navy in times of peace, all the while giving us the surest guaranty of peace by maintaining it strong enough to command world-wide respect, one aim has been to make a term of enlistment such an attractive opportunity that few young men would care to pass it by. Instead of considering the enlisted men as a mass, they will be considered individually. Each and every man will be given the chance in his life to advance in his chosen career as though he was attending his State university, whether his desire be to remain in the service or to return to

civil life; with the added advantage of having traveled over a great part of the world, having seen places and done things that the ordinary student at home can not see and can only read about; all the while happy and glad because trained in naval discipline so as to make him at the first emergency a most valuable unit in strategy and warfare.

Since the Navy will be maintained and kept at its highest efficiency, it behooves all of us to derive the greatest advantages we may out of it. Alchemy is said to effect excellent transmutations of elements. I hope to invoke an educational alchemy that will change an engine of destruction into a school—and the main by-product of education is peace.

The department has emphasized its policy to raise the standard of the enlisted man on board ship with a view to increased efficiency by attaching to the service the most desirable candidates and retaining them whenever possible after they have become useful to the Government. Better and sure opportunities for advancement are provided for; educational features established to fit them for advancement, and encouragement given to all to make use of these advantages. The present policy of the department is to consider the needs of the men behind the guns. The interests of the personnel have been constantly in mind.

While none can appreciate more profoundly than I that the supreme purpose for which the Navy exists is as the right arm of American defense, it is none the less true that its efficiency as a fighting force will be in the highest sense promoted to the adoption of a serious and systematic course of instruction aboard ship and at all shore stations, to supply wherever possible ascertained deficiencies in academic education; perfecting the already existing technical instruction, and coordinating the entire educational work of the Navy.

It is my ambition to make the Navy a great university, with college extensions afloat and ashore. Every ship should be a school, and every enlisted man, petty and warrant officer should be given the opportunity to improve his mind, better his position, and fit himself for promotion. In this way habits of study and application will be formed by the men, which will make them more alert, more efficient, more ambitious, and conduce to a general uplifting, which will be reflected in better discipline and in an improved morale throughout the ships. It will keep the minds of the men occupied, give them a more definite aim, and make for contentment and happiness.

Training produces skill, and skill not only produces efficiency but enhances self-respect. It is admitted by naval officers that at present not only seamen, but even petty officers, have too little accurate knowledge. Their knowledge is approximate. They know that a thing is habitually done, but not always why it is done. This will be corrected by the systematizing of courses of instruction proposed. The school work will be of special advantage in case of reenlistments, because education always whets the edge of ambition and fosters the impulses of patriotism; but even if the sailor returns to civil life after his first term he will be better fitted for the duties of citizenship, and the trade he has acquired in the Navy will make him a skilled breadwinner. The Navy will return him, under these improved conditions, to his country and dwelling place better in mind and in manhood than when it first received him without at any time having sacrificed his usefulness to the Navy in any way whatsoever.

The educational system was first tried out on the *Des Moines*, and, the results proving entirely satisfactory, and promising further benefit, the system was put into effect throughout the entire Navy on the first of the year on board every ship and at all shore stations. The majority of the instructors will be young officers graduated from the Naval Academy. Midshipmen of the graduating class will have impressed upon them the fact that next to their man-of-war duties their most important work from the time they leave Annapolis will be in connection with the instruction of recruits in academic and technical subjects.

This naval educational policy is based mainly upon the 4 training schools for recruits at Newport, Norfolk, Chicago, and San Francisco, supplemented by 11 already existing technical schools maintained by the Government. Including a machinists' school at Charleston, S. C.; electricians' school at New York and Mare Island; torpedo school at Newport, R. I.; seaman gunners' school at Washington, D. C.; artificers' school at Norfolk, Va.; musicians' schools at Norfolk and San Francisco; yeomen's schools at Newport and San

Francisco; and a school for cooks and bakers at Newport. These schools are every day converting raw recruits into skilled men in the various trades required by the naval service.

The system of instruction will be standardized on all ships, so that men transferred from one vessel to another will not be the loser by the change. An officer on board each ship will be assigned to supervise and assist the work of all enlisted men who, by reason of their initiative and ambition, may have taken up correspondence courses with outside institutions. Classes for warrant officers, chief petty officers, and others, and special classes for enlisted men in the commissary branch, Pay Department, Hospital Corps, and other divisions on board ship, who seek promotion will be formed.

There is a decrease at present in the number of desertions. Some years ago desertions from the Navy were so frequent as to constitute a serious problem. Education and proper diversions are the best remedies for unlawful absenteeism, because they tend to make life aboard ship happier—and the only good ship is the happy ship. There have been added more avenues of promotion and better recognition of the intelligent and efficient enlisted personnel, upon which the success of the Navy so largely depends.

The high ethics of the naval personnel forbids the existence of any spirit of favoritism or the denial of just and equal opportunity to all. It is to be hoped that the day will soon come when all Members of Congress who have the right to choose midshipmen for the Naval Academy will name the candidates who demonstrate their capacity in competitive examinations, because experience has shown that youths admitted by fair competitive examinations rank higher than those who enter without competition.

The question presses whether appointments of future naval officers would not be improved by the competitive method. This was especially proved to me last year, when there remained 10 vacancies for the position of assistant paymaster in the Navy out of the 30 additional appointments authorized by Congress in the summer of 1912. It was my privilege to recommend the appointees. There did not lack a number of applicants with influential backing; but it seemed to me that the vacancies in question offered the first opportunity to open a new door to enlisted men to take the examination for the positions available.

The order to that effect carried practical evidence of the desire, under the present administration, to secure more promotion for the men who did not enjoy the advantages of Annapolis training. Many candidates began to study to prepare themselves for the examination, and those who made the highest marks will be appointed. Those who have been promoted from the ranks have shown themselves worthy, and the Navy will reap the benefit of their experience in these positions of usefulness and honor. A steadily increasing number of promotions of those who demonstrate their fitness will give a new stimulus to all who enlist. Upon the efficiency of the personnel depends the success of the Navy.

These improvements and changes are all comparatively recent, and some are yet in their process of working out. As a result there must be other changes that can be operated only through congressional cooperation. The best impulse that can be given to the enlisted men in the Navy is to open new doors of advancement and promotion. Thousands every year come into the service—8,448 in 1913, compared with 6,005 in 1910—bringing the talents and the ambitions essential to the production of our best American citizenship. It was true that there was no chance of promotion from raw recruit to admiral except in the case of a genius to whom metes and bounds counted for naught. There are yet, however, too few opportunities for the capable and aspiring enlisted men; though year by year new doors of hope and opportunity are opened to them.

Congress should seek to make the way to high station easier to enlisted men. The avenue from the man below decks to the admiralship should be made easier. It is now too difficult. I hope that favorable congressional action will follow early enough to do some good, not only to those who enlist from now on, but also to those who enlisted in the past and have studied diligently, with a view to being promoted as soon as chance offered.

In speaking for what is now an entirely regenerated system for the good of the file in the Navy, I speak, of course, with a view to recommending the career to those youths who consider themselves fitted for the life, and particularly those who have remained in doubt as to what advantages are offered. In-

genuity and individuality will count in their favor. Recognition and merit have displaced political protection and favoritism.

The full quota is not far short of being complete, and at the time of writing the vacancies are under a thousand. The full quota of the Marine Corps of 9,921 was filled in October, notwithstanding the fact that the standard for admission has been raised and that there has been a rigid exclusion of those not morally or physically fit. But additional openings will be automatically established with the commissioning of additional ships, and also to fill the vacancies caused by those who are either promoted or who return to civil life at the end of their enlistment terms.

The American Navy to-day desires men who are open minded, quick to discover better ways of construction and control, studious and inventive, ready to discard the old and test the new. There is no longer a place in the Navy for the standpatter. We wish for more emphasis upon initiative and less upon regulations. I am not sure that initiative all along the line, from admiral down to raw recruit, has been given the free play necessary for its best development. The only hope for the best service is that it shall be spontaneous and enthusiastic, that encouragement shall come to those who study and bring to light new and better things.

Secretary DANIELS. I can finish in an hour or perhaps an hour and a half this afternoon, Mr. Chairman.

The CHAIRMAN. We will adjourn, then, until 2 o'clock p. m.

(At 12.45 o'clock p. m. the subcommittee took a recess until 2 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee reconvened, pursuant to the taking of the recess, at 2 o'clock p. m., Hon. Frederick Hale (chairman) presiding.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. Proceed, Mr. Secretary.

Secretary DANIELS. Mr. Chairman, I desire to insert in the record the following note received from Admiral Mayo:

DEPARTMENT OF THE NAVY,
GENERAL BOARD,
WASHINGTON, May 18, 1920.

MY DEAR MR. SECRETARY: I have this morning read your statement before the Senate subcommittee made on May 14. I think you are undoubtedly right in holding that Admiral Sims's charge as to the responsibility of the Navy for the loss of 500,000 lives, etc., is entirely unwarranted. I consider that this assertion of Admiral Sims is a wild statement not at all susceptible of proof, and it is an unwarranted attack upon the Navy Department and the Navy.

Very respectfully,

H. T. MAYO,
Rear Admiral, United States Navy

HON. JOSEPHUS DANIELS,
Secretary of the Navy, Washington, D. C.

That is from Admiral H. T. Mayo, who was for a longer time than any other man in this generation commander in chief of the American fleet.

NAVY'S WORK IN WAR.

SIMS AND ALL OTHER WITNESSES AGREE THAT THE NAVY AS A WHOLE DID GREAT WORK IN THE WAR.

In all the weeks this investigation has been going on it is a notable fact that of all the witnesses who have appeared before this committee not one has denied that the Navy as a whole did a great work and

showed marked efficiency in the World War. No one can deny that; it is a matter of history, and even the witnesses who were severest in their criticisms have testified to the Navy's splendid, almost unparalleled, achievement.

I submit the following statement, Mr. Chairman, for the record. I will not read it.

(The matter submitted by Secretary Daniels is here printed in full in the record, as follows:)

Admiral Sims in his preliminary statement said:

"I have raised no question whatever as to the efficiency of our naval operations in the war when viewed in their entirety and without regard to the time element.

"Speaking of the Navy itself—that is, its personnel and ships apart from the organization which directed it—I am in the fullest accord with the country in being unable adequately to express my admiration for its work. That work will grow larger and larger in public estimation as the facts slowly come out. I am proud to say, without fear of contradiction, that, in so far as the Navy was permitted by the machinery which controlled and directed it, it not only lived up to all traditions of the past but, as a matter of fact, it excelled its former traditions. Without any disparagement of actual results accomplished, I believe that its greatest accomplishment was the example set and the spirit which it infused into the naval war through its exhibitions of Americanism. For example, in its irresponsible enthusiasm, its indomitable initiative and versatility, its absolute refusal to be balked by obstacles, real or imaginary, its ruthless disregard of precedents, and, above all, in its absolute confidence in victory.

The Admiral, in fact, paid tribute to the "very marked efficiency that the Navy Department exhibited in the latter part of the war." He took pains to direct attention to the fact that his letter of January 7, 1920, which is the basis of this investigation, is "almost wholly concerned" with the months immediately preceding our entry into the war and for about the first year or less of our participation, and that in considering the letter "the case must not be confused with the conduct of the war as a whole."

"The period of the war covered by my letter is encompassed almost wholly in the first six or eight months thereof," he said, and went on to say:

Incidentally let me state right here, with all possible emphasis, that my entire letter of January 7, 1920 refers to this early period of the war. Practically all of it refers to the first six months. Hardly any of it refers to anything out of the first year, 1917. It has practically nothing to do with the efficiency of the Navy and the Navy Department in 1918.

I expect, during the course of my testimony, to make that statement a number of times, because I want it to be definitely understood that my criticism has nothing to do whatever with the very marked efficiency that the Navy Department exhibited in the latter part of the war, after they really got into it.

PALMER SAID NO SHIP WAS DELAYED FOR LACK OF PERSONNEL.

Capt. Palmer, who was Chief of the Bureau of Navigation from August, 1916, to October, 1918, has told you how the personnel of the Navy was expanded tenfold, until it embraced more than 30,000 officers and half a million men—a record never approached in a similar period by any other Navy in history—and he quoted to you this tribute of Sir Eric Geddes, first lord of the British Admiralty:

The dauntless determination which the United States has displayed in creating this huge trained body of seamen out of landmen is one of the most striking accomplishments of the war. Had it not been effectively done one would have thought it impossible, but words fail me to express our admiration of this feat undertaken and accomplished by your Navy Department, of which Mr. Daniels is the civil chief.

HAD MORE OFFICERS AND MEN THAN THE BRITISH NAVY.

In fact, the United States Navy, before the end of hostilities, embraced more men, including marines, than were in service in all the navies of the world before the European war began in 1914. The Statistical tables relating to the period of the war," presented to the British Parliament by the first lord of the Admiralty, explanatory of the navy estimates for 1919-20, show that on July 15, 1914, there were in service in the British Navy 146,047 men, and on November 15, 1918, the total, exclusive of the mercantile marine reserve, was 407,316. The gross expansion of personnel in the British Navy during the war, Mr. Long shows, was 261,269, including 3,842 reserves, and the net expansion, excluding reserves already enrolled, was 197,427.

Beginning with 85,061 officers and men, on April 6, 1917, the United States Navy reached a total of 532,931 officers and men in naval service, and we also had 75,044 marines—a total force of 607,975. Our gross increase was 447,870 in the naval service, including reserves, Naval Militia, and Coast Guard; 61,314 in the Marine Corps; total, 509,184. Net increase in naval service alone, excluding reserves, Naval Militia, and Coast Guard enrolled before the war (17,352), 430,518. Net increase, including marines, 491,832.

PERSONNEL PROVIDED FOR EVERY ACTIVITY.

Capt. Palmer has told you how plans were made far in advance to secure the men and officers needed, and said:

Actually, in coming down to the definite preparation of personnel, we worked out a sheet, which was good for a year in advance, from the knowledge we had of the things that ought to be undertaken and from the orders we had from the Chief of Naval Operations; so that we knew at any time where we were going to get the personnel and how we were going to train it and where, at all the different schools, training stations, and colleges, and just how long it would probably take to deliver these men to the Navy; that is, to follow out what the Chief of Naval Operations wanted us to do.

In all this work, as it continued during the war, every activity of naval operations, whether afloat or ashore, was carried out—certainly to the extent of numbers of officers and men. That is, we had the men and officers ready by the time the ships were ready to start; but, of course, that is not saying they were trained. They were trained as well as they could be in the time that had been given us.

In answer to questions by Senator Trammell, Capt. Palmer said:

I had the personnel actually ready at the seaports to put on vessels before the vessels were ready. We never had a delay of a vessel on account of not having the officers and men; but I will not say that they were very highly trained.

In response to Senator Trammell's question as to whether, taking it as a whole, the men provided accomplished results, Capt. Palmer said:

I should say that the results accomplished by the Navy were perfectly wonderful during this war.

DEPARTMENT DOING ALL THE LAW ALLOWED, LANING TESTIFIED.

Capt. Laning, who was from July 16, 1917, detail officer and afterwards Assistant Chief of the Bureau of Navigation, told you that the Navy Department at the time we entered the war was doing

everything Congress had authorized as to personnel and material. quote from the record:

Senator TRAMMELL. Capt. Laning, you speak of not having prepared in material and personnel. Was the Navy built up to the limit in personnel as authorized by law?

Capt. LANING. Approximately, yes.

Senator TRAMMELL. Then the Navy Department was exercising its full authority and to its full limit as far as authorized by law in regard to personnel?

Capt. LANING. Yes; it had all it could get.

Senator TRAMMELL. Whose neglect was it that you were not equipped as far as the law authorized you in material?

Capt. LANING. That was due to the fact that we did not have the funds to provide all the material that was essential. That is, on battleships, for instance, we are always developing new things in the way of fire control—that is, the control of the firing of the guns—and frequently those things were not put in, because we did not have the funds available to put them in.

Senator TRAMMELL. The Navy Department was doing the best it could, then as far as material was concerned, considering the available funds?

Capt. LANING. Oh, yes; there is not any question about that; but the point made was that it had not presented the facts to Congress so as to get the funds it ought to have had to do those things.

SIMS THREATENED INVESTIGATION IN AUGUST, 1918.

Capt. Laning's letter to Admiral Sims, written during war, dated August 26, 1918, quotes a paragraph from Sims's letter to Capt. Pratt, which had been given to Capt. Laning to answer, which indicates that Admiral Sims was, even then, in August, 1918, contemplating hearings "on the conduct of the war," such as are now being conducted by this committee. This paragraph, to which I direct your particular attention, is as follows:

When the history of this war comes to be written there will be a number of features that will not be very creditable to the United States Navy. I hearings are held on the conduct of the war a number of disagreeable facts must inevitably be brought out. Without going into details, I may say that as far as the Navy is concerned we will have fought this war with the bulk of our experienced personnel of the Navy on the side of the ocean where there is no war. We will have to be able to show that it was entirely unnecessary that we should have to fight the war over here with a large proportion of reserve officers who did not have the necessary experience.

That threat of Admiral Sims's, written 20 months ago, makes positively ridiculous his attempt to create the impression that his letter of January 7, 1920, was dragged out of him by this committee or was written for any other purpose than to precipitate an investigation and enable him to set forth all the things he could gather which he thought would "not be very creditable" to the Navy.

Capt. Laning's letter was such a complete answer to Admiral Sims's complaints regarding personnel, as well as to an article by W. R. Carter, demanding more regular officers on submarines; it gives such a good account of the vast work the Navy was doing, which Sims ignored, that I quote from it at length.

LANING STATED NAVY'S WORK AND PERSONNEL POLICY.

Answering Sims's allegation that "the bulk of our experienced personnel of the Navy" is "on the side of the ocean where there is no war," Capt. Laning says:

It is that paragraph that hurts. Are you sure that the bulk of our experienced personnel is on this side of the water now? Of course, if you don't

count the cruisers and transports, you are right, but if you do count them as being engaged in active work you are wrong. Do you realize that ultimately two-fifths of our experienced personnel will be on destroyers alone and of the remaining three-fifths at least half will be over there before the war is over, provided, of course, transports and cruisers may be considered as working in the danger zone? The bulk may not be there to-day, but we are expecting them to go and are planning for it. Please remember experienced officers number all told only about 2,370, and there is much to do over here that may be less spectacular and not deserving of credit, yet for all that it is work that without which the Hun can't be licked.

ADOPTED BROAD PLANS TO BUILD UP GREAT NAVY.

After explaining that when war was declared we had only 2,394 line officers in the Navy, Capt. Laning says:

It is evident that a decision had to be made and made at once as to what the Navy should do in the war. We could take our 2,394 officers and our 57,000 enlisted men, man what ships we could and let it go at that, or we could use those officers and those men as a foundation on which to build a truly great Navy, one that could actually deal some blows to the Huns. It was evident that what we then had could not win the war, so that the second plan had to be adopted. We may have made our initial error at that time and should have been content with a 57,000-man Navy instead of the 400,000-man Navy we are rapidly coming to. Up to the present, however, we have no reason to think we have erred in adopting the plan of an expanding Navy.

We took advantage of the enemy's inability to strike hard while we were building up our Navy for such a great war. The problem as it seems to us was not to deliver a puny and futile blow at the start but to build for the blows that in the end must crush the enemy. To have wasted our strength to strike quickly when that strength was not sufficient to win would have been foolish. We would have sacrificed all and in the end would have been only worse off than at the start.

Our mission was and is to decisively beat the enemy. If we accept some smaller mission, we won't win the war. The first mission, subordinate to but a part of grand mission, was to defeat the U-boats. Almost every one assigned a task in that first mission immediately ran away with the idea that it was about the only mission we had. They were fortunate enough to get in the game, but once there they saw only their part in it. Even you yourself questioned the advisability of keeping our battleships in commission and suggested putting them out to send the personnel over there. To have done that would have been disastrous, for those battleships have trained over a hundred thousand men and thousands of officers, which we would not have now, had we carried out the suggestion.

We recognize the importance of the work against the U-boats but we did not think that their extinction could alone win the war nor that even by sending all our 2,394 officers over we could extinguish them. As early as July 1, last year, it became known on this side, that no matter how much we curtailed the U-boats the war would be lost if we did not get troops to France. How were the troops to get there unless the Navy took them? The situation in our merchant marine was such that they simply could not carry out the task of transporting those troops even assuming that their officers were sufficiently skilled in handling ships in convoys. The Navy not only had to convoy the troops across but also it had to operate all the transports flying the United States flag. It at once became evident every cruiser we have would be a vital factor and that transports were even more vital.

TROOPS TRANSPORTED SAVED THE DAY.

Suppose the transport service had not been developed early where would we and our allies have been to-day? Just as the little force we put in against the subs swing the balance in our favor on the sea, so the transport and cruiser force later swing the balance on land to our side. Hasn't it turned out that making your force go, and making the transport and cruiser force go, were the allied salvation? We now operate over 40 troop transports and several hundred cargo transports. We could not have had either the officers or the men to man

them had we stripped this side for your side early in the war, yet without them could the enemy have been stopped on land? Those troops of ours are saving the day and I believe it would be unfair to put blame on the department for putting them across instead of sending the personnel to chase submarines. Both things were essential but neither one by itself could save the day. By sacrificing something in our U-boat efforts the transports have gotten across, but had we sacrificed the transports to sink U-boats our troops wouldn't have gotten over and without them where would our allies be now?

Surely we must concede that there were at least two important missions under our general mission—(1) the curbing of the U-boats and (2) the delivery of troops to France. Were these our only missions? I don't believe so, and certainly not after being privileged to read some of your own letters on the subject of battleships.

Already we have been called on to send some battleships across and I dare say all the other first line ships will sooner or later be called on, perhaps not with the Grant Fleet but for some other important duties in the war area. Will any one question the advisability of our keeping those ships ready? Because they are not being used on the line to-day is not proof that they won't be called on to-morrow. Anyhow we believe they must be ready and surely in this you agree. This will account for our dreadnaughts, now what about our older battleships? There is the rub. What are those old tubs doing? They are the ground work of the whole scheme for a Navy big enough to win this war. Without them we would practically have no training place at sea for the hundreds of thousands of men and the thousands of officers required to man new battleships, new destroyers, transports, cargo ships, mine sweepers, submarines, subchasers, and the many other types of craft we are turning out in great numbers.

We have an average of 10 regulars on each of those ships or 180 in all. Hidden away from all excitement and all chances of honor and renown those fellows work harder than any one and make possible the manning of our thousands of ships. Does young Carter mean that we should cut off our sole means of preparing personnel for the expansion to send more officers to the chasers? For the present we might get more U-boats, but in the long run we would do less to win the war. I believe that the missions of our battleship forces are an essential part of the general mission and that neither of these subsidiary missions can logically be sacrificed to insure the better carrying out of another subsidiary mission. The missions are (3) for dreadnaughts to be instantly ready for battle, and (4) for predreadnaughts to train combatant officers and men to run the over expanding Navy.

I have so far covered our major operating forces but have endeavored to show how the rôle each is playing is essential and one that can not be cast aside. We have other forces of course, such as the submarine force, the district forces, etc. Of these only the submarine force has any regular officers and then only in small numbers. The Caribbean patrol is made up almost entirely of reserve and coast guard officers. In fact every force has only a leaven of regulars, the vast majority of officers attached permanently to any naval vessel on this side are newly made. On dreadnaughts on this side we now have a total of 14 regulars, on predreadnaughts average 10, on armored cruisers 10, on first-class cruisers 7, on smaller cruisers 4, on gunboats 3, etc. As new construction comes on the regulars will become fewer and fewer on each ship. Each regular is actively at work, each is engaged on the general plan, and each is doing what we believe will finally be the total defeat of the enemy.

So far I have touched only on officers afloat. There are a considerable number of regulars who much to their disgust are held on shore duty. It may be contended that these do not belong there but if one looks into the situation even casually he would be amazed that we have gotten along with so few on that duty. As a matter of fact the feeling here is that because of the lack of officers for the handling of the shore end, that end is probably not succeeding as well as it should. Although every retired officer that can function has been called to active duty and hundreds of reserve officers have been put in such positions ashore as they are competent to fill, the shore end is having a difficult time to carry on its work. We are spending billions of money for material the providing of which must be handled by experienced officers. We have 200,000 men in training alone on shore for which we must have some experienced officers. Great Lake Training Station with 47,000 men has three

regulars of the active list. Others are similarly curtailed. I could recite the details and they would astonish you but there is no use.

I am sure you will believe me when I tell you that to-day regular officers are working to the limit of their endurance on shore and their accomplishments would have been considered impossibilities 18 months ago. But the situation on shore is such that we are open to severe criticism, because we have not sufficient officers to do the work as it should be done or to properly safeguard the expenditure of billions of dollars.

20,000 OFFICERS, 200,000 MEN TO MAN CARGO SHIPS.

One of the big tasks that has fallen to the Navy is to man and operate the 2,000 merchant ships now being built by the Shipping Board. The supply of merchant officers and merchant sailors is exhausted and the Navy alone has the facilities and organization to provide the personnel. While the cry that "ships will win the war" may not be correct, it is pretty certain that we can't win without them. And so the Navy will train and provide 20,000 officers and 200,000 men for these ships. It doesn't take many regulars to handle this task but it takes some. Is their task such that they can be taken from it?

ALL OUR FORCES USED IN WINNING THE WAR.

We can't win the war with anything less than all our forces. We might throw battleships in the discard, but would you advise it? We can't throw our training ships (old battleships) out and continue to expand. We can't cut down our cruisers and transports without curtailing our troop movements. We can't cut down our shore end lest the sea end falls because of a shore-end failure. And so it goes all along the line. I have studied the situation—in fact, do nothing else but study it—and I can't see any way to send a larger proportion of trained men to the chasers over there than we are sending. I admit it would be well to do it if we could, but it can be done only by sacrificing something else. Looking at it in the broad light, what would you sacrifice?

Reading over Carter's article, do you believe he had my conception of the total effort of the United States Navy? He has written a very convincing article. His caption is good and his logic sounds plausible, provided his premises are correct. He makes a general estimate of the situation from the one point on the line that he sees, though general deduction from local and incomplete information are valueless. The great trouble with such arguments presented as his are, is that when spread around it weakens the morale.

CURBING SUBMARINES NOT THE "CURE-ALL."

Let me point out where Carter is dead wrong. In his opening paragraphs he assumes that the most important work of the United States Navy is either one of two things—the defeat of the Germans on the sea or the defeat of the Germans under sea. With that premise and the use of false logic he proves his case. Both his premise and logic are wrong.

The important work of the United States and its allies is to beat the Huns. It doesn't make any difference where we beat them, just so we do; it may be on the sea, but it is much more likely to be on land. It is the Navy's business to use its efforts to beat them whether it be done on land or sea. If we can more certainly beat them on land, and it looks like that is where we must beat them, then our principal effort must be to help beat him on land. And, after all, beating him on the sea is on land. We can win this war if we can beat him on land and can prevent him beating us on the sea, and it looks like our plan to that end will be successful. Carter fails to see this, fails to grasp what the Allies' general plan is, and therefore his whole idea is illogical.

But Carter is wrong elsewhere than in his assumptions. He apparently thinks the end of submarine warfare is the cure-all. Suppose we had done as Carter implies we should—stop everything that doesn't tend to curb the U-boats. Would not the Allies be in a nice mess to-day if we had adopted that plan a year ago and forsaken our transportation of troops? Suppose we had kept up our troop arrangements and cast aside battleships, would not "Fritz" have a better chance to win on the sea with our reserve fighting force irreparably out of business? The mere fact that even if he should lick the British Grand Fleet, there is another fleet ready to fill the gap must have had some effect on his

plans; and anyhow, if it did not, it is a mighty good thing we have a strong reserve fleet against the slight possibility of his success? As a matter of fact, there simply is not any cure-all. We have got to work along all our lines, doing each as best we can, keeping in mind that defeating the enemy on one line can not and will not by itself win the war in a reasonable time.

Mr. Chairman, I have here some extracts from the testimony bringing out points from the testimony of every witness that has appeared before you. I do not suppose it is necessary to read those.

The CHAIRMAN. No.

GUNNERY AT HIGHEST STATE OF EFFICIENCY, ADMIRAL PLUNKETT
TESTIFIED.

Rear Admiral Plunkett, who was director of gunnery exercises and target practice and later commanded the naval railway batteries in France, told you that at the time we entered the war our gunnery was "at the highest state of efficiency" that it had ever been in the history of the Navy. He said:

At the end of March, 1917, when we were on the verge of entry into the war, the gunnery was at the highest state of efficiency that it has been in the history of the American Navy.

In describing how this high state of efficiency was brought about, Admiral Plunkett said:

Never in the history of the Navy has there been anything more intensive than the gunnery training of our fleet which took place in 1916, 1917, and 1918. The result of that was that when the war broke out, although we were still un-manned, the gunnery efficiency of the ships that were in commission was higher than it had ever been before in my recollection of the Navy. As a matter of fact, we had just one battleship, the *Wyoming*, fire in practice at nearly 20,000 yards, the longest range that has ever been fired by the service, and she made the phenomenal score of 20 per cent of hits under battle conditions.

I was with the fleet in the spring of 1917, and left there about the middle of March and came back to Washington, and on my arrival here shortly afterwards I submitted to the Chief of Naval Operations the report of the status of gunnery operations in the fleet, in which I summarized the practices that had taken place in a general way in order that he might have first-hand information as to the state of affairs just before the outbreak of the war. I did not comment in this report on the excellence of the training, but just merely stated what forms of target practice had been carried out and made a recommendation that the training continue just as it had been; that there were no changes to make; that I was in full agreement with the commander in chief that everything had been done in the way of laying down correct lines for gunnery training, and that, war or no war, we saw no reason for making any change in that direction.

PRAISED SPLENDID WORK DONE BY ARMED GUARDS.

Speaking of the work of the Navy's armed guards on merchant vessels, many of which gun crews were taken from or trained by the fleet, Admiral Plunkett said:

This armed-guard proposition, which was clearly beyond any foresight, although the Allies had been doing this for some time, was the cause of the breaking up of the efficient condition of what we had in commission at the outbreak of the war, for the simple reason that when you put a military man on board of a merchant ship they want to deny him the air necessary for his sustenance. They have to have him around. As a matter of fact, I think the putting of guns on merchant ships is very much against the wishes of the merchant people, but they did put them aboard; and in order to avoid any possible disruption or disputes, although there were a few minor ones, of course, we sent the highest type of our chief petty officers in charge of these guards and officers, so that if questions did arise they would be handled in the proper

inner; and I might say, in passing, that if the members of this committee have never read the reports of our armed guards, especially those written by our chief petty officers, they have missed some of the most illustrious history that has ever been written of the sea. The work that those people did is thrilling, and I do not know a single, solitary case in which they failed to measure up to what was expected of them. But it raised Cain with the American Navy.

"FLEET IN BEST STATE OF PREPAREDNESS," MAYO TESTIFIED.

Admiral Mayo, who, previous to and during the war, was commander in chief of the Atlantic Fleet, told you:

When the active fleet arrived in Hampton Roads, about the 1st of April, after a training period in Cuban waters, it was in the best state of preparedness it had ever been, and there was a feeling of confidence in the personnel of being able to cope with any emergency. The personnel was, however, on a peace basis, and the transfer of trained personnel for armed guard and other duty was already being felt in a decrease in efficiency. The destroyers that were first dispatched to the war zone, though they were assigned to operations which they had not been specially trained, showed the effect of their general training by the efficiency with which they at once entered into their new duties.

However, it should be pointed out that this fleet was lacking in types of vessels essential to efficiency, such as battle cruisers, scout cruisers, light cruisers, and sea-keeping submarines, and, furthermore, there are none even now available.

The material readiness of the active fleet was from good to very good. That was the condition was demonstrated again and again by the duties performed by the vessels during the war. The details are given in the several dispatches and letters that are a part of this statement.

The preceding remarks apply also to the readiness of the available personnel and to the soundness of the methods of training and operation in use at the time.

PREPARING FOR WAR TWO AND A HALF YEARS BEFORE WAR WAS DECLARED.

Admiral Mayo has told you how in 1914, immediately after the outbreak of war in Europe, when Admiral Fletcher was commander in chief, "plans were made to assemble the fleet, which had been engaged in Mexican waters, and put it into as good shape as possible." "At this time," says Admiral Mayo, "there was a strong feeling among all officers that the Atlantic Fleet should be prepared for any duty and that as many ships as possible should be in full commission. In December, 1914, the department issued instructions to all navy yards to so arrange the authorized work that the battleships could assemble in January, 1915, for the work in Cuban waters."

He told you how "the natural increase in the number of vessels" led to a reorganization of the fleet, which was made effective in 1915, and said:

There was a very general feeling that the training should be intensified and no effort spared to get the ships ready for war. The subject was discussed with the division commanders and instructions regarding the subject were issued. * * * The new organization proved very effective and continued in force.

Admiral Mayo has told you in detail the work of the fleet from the time he succeeded Admiral Fletcher as commander in chief, June 1916. He has described to you how the organization put into

effect the previous year under Admiral Fletcher was developed, and how intensive training was carried on, and every energy was devoted to preparation of the fleet for war. In telling of the revised fleet regulations issued he quoted several paragraphs showing that "the approved principles of command were in use and that the idea of readiness for war was always emphasized in the fleet." He told of the strategic problem conducted off the New York coast in 1916, and described in detail the exercises in Cuban waters early in 1917 and the measures taken immediately after the breaking off of relations with Germany, saying:

The above preparations indicate that the preparedness of the active fleet was proceeding in accordance with a prearranged plan.

PREPARATIONS MADE IN MONTH PRECEDING WAR.

Admiral Mayo has told you how before war was declared and while the fleet was still in Cuban waters gun crews were rushed north to serve as armed guards on merchantment. They were at New York ready for immediate service the moment the President ordered that American merchant ships be armed for protection against submarine attack. The battleships and destroyers arrived in Hampton Roads at 9.30 a. m. March 27, and the next day Admiral Mayo was in Washington consulting with the Chief of Naval Operations, who told him that the policy was to maintain the fleet in readiness for active operations and to continue intensive training of gun crews for armed-guard duty, and he was informed of the contemplated formation of the patrol force. He was directed in accordance with his recommendations, to shift the fleet base to York River, Va., which was done on April 3, and measures put in effect to protect it from submarine attack. Admiral Mayo's conference with the Chief of Naval Operations was held on March 29, the same day Admiral Sims was ordered to go to England. Orders were issued April 4 for the organization of the patrol force. All this occurred previous to the declaration of war.

FLEET ASSEMBLED AND READY, MOBILIZED FOR WAR THE DAY WAR WAS DECLARED.

The following extracts from his records given by Admiral Mayo show that the fleet, which was not only in a high state of readiness but was already assembled at its war base and had its orders for mobilization, was mobilized for war the day war was declared:

April 6.—At 1.33 p. m. received 16 Alnav. "The President has signed act of Congress which declares that a state of war exists between United States and Germany."

A signal was immediately sent to the fleet * * * "War has commenced."

At 5.50 p. m. orders were received as follows:

"Mobilize for war in accordance department's confidential mobilization plan of March 21. Particular attention invited to paragraphs 6 and 8."

Paragraph 6 assigned rendezvous of various forces and paragraph 8 instructions with regard to fitting out at navy yards.

As has been indicated previously, the dispositions for the protection of the fleet at anchor in York River had been in operation during the period of strained relations.

IN CONFERENCE WITH BRITISH AND FRENCH ADMIRALS FOUR DAYS AFTER
WAR WAS DECLARED.

Three days after the declaration of war Admiral Mayo was informed that Vice Admiral Browning, commander in chief of the British forces in the western Atlantic, and Rear Admiral Grasset, commander of the French forces, were proceeding in their flagships to Hampton Roads for a conference with the Chief of Naval Operations (Admiral Benson), the commander in chief of the Atlantic Fleet (Admiral Mayo), and the commander of the patrol force (Capt. (now Admiral) H. B. Wilson).

He has told you of the conference held at the Hotel Chamberlain, Hampton roads, on April 10, four days after war was declared, at which Vice Admiral Browning read a communication from the British Admiralty inquiring as to what assistance the United States was prepared to render.

The conference adjourned, as he has told you, to meet the following day in Washington "to take up the suggestions of the foreign governments with the Secretary of the Navy, as Vice Admiral Browning considered his instructions required a conference with the Secretary of the Navy." He has told you that there were present at that conference the Secretary of the Navy, Admirals Browning, Grasset, Benson, Mayo, Wilson, and the members of the General Board, and that the "subjects discussed were those of the previous day—that is, cooperation with the Allies and the assistance the United States could and would render." Though he did not go into detail, Admiral Mayo, and every other person who was present, can testify to the fact that the British and French representatives were impressed by the cordiality with which their suggestions and requests were received and complied with and the evident disposition of the representatives of the United States Navy to accord the Allies every possible assistance.

ORDERS IMMEDIATELY ISSUED TO SEND DESTROYERS TO EUROPE

Admiral Mayo's testimony shows that it was decided to send destroyers to European waters to cooperate with the allied antisubmarine forces in that area, and he says:

Oral instructions were received to prepare six destroyers for distant service, selecting those boats which were most reliable from the point of view of material.

That conference, at which complete cooperation with the French and British was arranged and we agreed to take over the patrol of our Atlantic coast, the Caribbean Sea, and Gulf of Mexico, agreed as soon as possible to bring most of the Pacific Fleet into the Atlantic, to patrol South American waters, held April 11 and 12; and destroyers were ordered sent to Europe before we ever heard a word from Admiral Sims, except the one line announcing his arrival. Sims sent his first dispatch from London, reviewing the situation, April 14.

Regarding the promptness with which destroyers were ordered to prepare for duty in European waters, I quote the following extracts from Admiral Mayo's testimony:

Destroyer division 8 left Boston 5.30 p. m., en route to Queenstown, Ireland, to cooperate in antisubmarine operations with the British force in Queenstown. (This division sailed April 24.)

April 26.—Orders received to direct six destroyers proceed to home yards to fit out for distant service.

April 28.—Orders received to send six more destroyers and *Melville* to home yards to prepare for distant service.

May 1.—Twenty-four additional destroyers and *Dixie* ordered to prepare for distant service.

May 4.—Destroyer division light arrived at Queenstown. The commander of this division had orders to communicate his orders and operations to Rear Admiral Sims at London and to be guided by such instructions that he might give.

May 15.—All destroyers attached to patrol force were detached from that force and ordered to the destroyer force.

May 18.—Nine converted yachts were ordered prepared for distant service.

Admiral Mayo, in his letter of June 13, 1917, which he read to this committee, said:

Practically all destroyers in the Atlantic Fleet, except destroyer division 1, had been ordered to home yards to fit out for distant service by April 30, 1917; the destroyer tenders *Melville* and *Dixie* had similar orders.

That is, by the end of April, about two weeks after Admiral Sims's first dispatch, urging the sending of destroyers, had been received, all but one division (6) in the entire Atlantic Fleet had been ordered to fit out for European service.

CRUISERS ORDERED FOR CONVOY DUTY.

Again quoting from Admiral Mayo:

July 4.—Orders were received to direct *Cleveland*, *Raleigh*, and *Albany* to proceed to New York without delay and prepare for convoy duty. Probable date of convoy sailing July 8. This was the beginning of a new policy—that of using United States cruisers to escort merchant convoys.

July 7.—A number of gunboats and small cruisers ordered to navy yards to prepare for distant service.

July 13.—Eleven yachts which were assigned to the patrol force were ordered to fit out for distant service and proceed singly to Gibraltar.

July 16.—The patrol force organization was practically abandoned except for the detachment operating from Key West and the Mexican patrol detachment. Most of the destroyers, yachts, and gunboats having been ordered on distant service. On this date all Coast Guard cutters, which had been assigned to the patrol force, were ordered to report to the commandants of naval districts.

July 20.—Squadron 2 of the cruiser force was assigned to escort duty.

ALL THE PRINCIPAL THINGS FISKE URGED WERE DONE.

Rear Admiral Fiske (retired) has told you how defective the Navy Department's organization was when I came into office; how important it was to establish a Chief of Naval Operations and put into effect the "administrative plan" of the General Board, and that, he told you, had for years been urged in vain. Whatever delays there may have been, the office of Chief of Naval Operations was established two years before we were at war; I did approve the "administrative plan," and it was put into effect in 1915; the fleet was increased, reorganized, and carried out war maneuvers; and the act of August 29, 1916, which Admiral Fiske says "made a new epoch possible for the Navy," authorized more vessels and more men than any board or officers, previous to the time he left the Navy Department, ever recommended or hoped to get. In a hearing before the House Naval Affairs Committee, March 24, 1916, Admiral Fiske said concerning the creation of a Chief of Naval Operations:

In the opinion of most naval officers this was the most important step toward the modernization of the United States Navy that has been taken since 1890, when the steel ships *Dolphin*, *Atlanta*, *Boston*, and the *Chicago* were authorized.

Though he admits that the Chief of Naval Operations was by law charged with the preparation and readiness of plans for the use of the fleet in war as well as for its operations, he points to the British Admiralty, and the German Navy with its general staff as having had superior organization.

NAVY DEPARTMENT'S ORGANIZATION SUPERIOR TO THAT OF BRITISH ADMIRALTY.

But Admiral Mayo, when he visited England in September, 1917, examined into conditions in the British Admiralty, and his report indicates that their working organization even then, after three years of war, was not as efficient as ours. He said:

GENERAL IMPRESSIONS REGARDING CONDITIONS IN BRITISH ADMIRALTY.

(a) There is little doubt that the British Admiralty is at a loss when asked for the history of the war to date. Reports of operations are so isolated and scattered and without system that there is not available any comprehensive record of original plans, the governing reasons therefor, and the degree of success or failure in each case. The inevitable inference is that the war has been carried on from day to day and not according to any comprehensive policy to serve as a guide to plans looking to the effective coordination and operation of effort against the enemy.

(b) It is apparent that, despite the so-called war-staff arrangements put to effect in the Admiralty during the past three years, until very recently there has been no planning section, nor was there any definite body of men charged with the function of looking ahead, or of looking back to see wherein lay the causes of success or failure, nor any means of furnishing the heads of the Admiralty with analyses and summaries of past operations in order that decisions as to continuing old operations or undertaking new ones might be reached with a due sense of "perspective," both as to past operations and as to the coordination of new operations in a general plan.

(c) The statement of present Admiralty policy, originally dated July, 1917, now revised to September 17, 1917, is not really a statement of policy, but rather a summary of current activities. That these activities are based on an underlying idea of the defensive may readily be inferred from the leading words in the subparagraphs of paragraph 1 of the paper referred to, namely, "protection," "prevention," "protection," "resistance."

BRITISH HAD NO ANTISUBMARINE PLANS THAT GAVE PROMISE OF SUCCESS, SIMS SAID.

Admiral Sims, describing in his magazine articles (*World's Work* for September, 1919, p. 493), his first interview on the submarine situation with Admiral Jellicoe, first sea lord, in April, 1917, says he was astounded at the record of sinkings, and he expressed his consternation to Jellicoe, and Admiral Sims thus recounts the conversations with the first sea lord:

"Yes," he said, as quietly as though he were discussing the weather, and not the future of the British Empire, "It is impossible for us to go on with the war losses like this continue."

"What are you going to do about it?" I asked.

"Everything that we can. We are increasing our antisubmarine forces in every possible way. We are using every possible craft we can find with which to fight submarines. We are building destroyers, trawlers, and other like craft as fast as we can. But the situation is very serious, and we shall need all of the assistance we can get."

"It looks as though the Germans were winning the war," I remarked.

"They will win unless we can stop these losses, and stop them soon," the Admiral replied.

"Is there no solution for the problem?" I asked.

"Absolutely none that we can see now," Jellicoe announced. He described the work of destroyers and other antisubmarine craft, but he showed no optimism over their ability to control the depredations of the U-boats.

So the British Admiralty, with all its staff, had no plans that gave any promise of overcoming the submarine menace, and even in September, 1917, as Admiral Mayo shows, they had no plans for an offensive against the enemy, and no real general policy. We did not have a general plan; we did have a fixed policy; and we proposed offensive projects, like the North Sea mine barrage, which were carried out, and which played an important part in curbing the submarine menace and ending the war.

The military as well as civil heads of the British Admiralty were changed time and again during the war. No change was found necessary either in the organization or the personnel of our Navy Department during our participation in the war.

Regarding the number of men needed in case of war, Admiral Fiske had very small ideas. The 19,600 or 20,000 men he talks so much about were not a drop in the bucket. The act of August 2, 1916, authorized an immediate increase of over 20,000 men, and more than 20,000 additional in case of emergency. But when we got into the war we didn't need 20,000 more men, but nearly half a million. And we got them.

FULLAM TOLD HOW OFFICERS ON PACIFIC WORKED TO GET ARMORED CRUISERS READY FOR WAR.

Rear Admiral Fullam (retired) has told you how energetically and constantly all our officers on the Pacific, in the reserve fleet at navy yards and on the ships, worked to get our armored cruisers and older vessels held in reserve, ready for active service in war. He said:

Every officer out there worked his heart out, night and day, under very discouraging circumstances, to get those ships ready for war.

He has told you what an important part those armored cruisers of the *Colorado*, *Maryland*, *Pittsburgh*, *South Dakota*, *West Virginia*, *Charleston*, *Milwaukee*, *Saratoga*, *St. Louis*, *Albany*, and *Oregon* played in the war, in escorting troop and cargo convoys, in patrolling the Caribbean and South American waters.

Admiral Fullam has recounted how, in 1915, he began his effort to get those cruisers in shape for war service; how he requested that for this work, he be allowed to utilize apprentices from training stations, and the Bureau of Navigation, on November 29, 1915, granted his request. He has told you he wrote to the Navy Department suggesting that "all ships of the Reserve Fleet be supplied with sufficient officers to enable them to move and join the commander in chief," and that "in a letter, February 10, 1916, the department encouraged me very much by approving my suggestions and asking me for a 'schedule of movements' to carry out the scheme." Why the scheme could not be carried out at the time is shown by the letter from the Bureau of Navigation, March 6, 1916, in which Capt. Dayton explains that the bureau could not furnish for the Reserve Fleet the officers and men Admiral Fullam asked for, as they would have to be taken from the battleships of the Atlantic Fleet; and besides in the

next six months crews had to be provided for the battleships *Nevada*, *Oklahoma*, and *Pennsylvania*, for a number of new destroyers, and a dozen submarines.

Admiral Fullam's letter of June 15, 1916, states that there was then a shortage of 403 men in the Reserve Fleet. Admiral Coontz's letter to him July 10, 1916, points out that certain repairs on these ships were delayed by lack of funds, which were appropriated in the act passed by Congress August 29. He quotes the letter of the Chief of the Bureau of Navigation, August 24, 1916, pointing out that the Reserve Fleet had an average of about five commissioned officers to the ships, the maximum that could be allowed at the time.

DEPARTMENT IN SEPTEMBER, 1916, ORDERED THAT ALL CRUISERS BE PUT IN READINESS FOR SEA SERVICE.

On September 30, 1916, Admiral Fullam told you, the Navy Department addressed a letter to all bureaus and commanding officers in the Pacific, on the subject of repairs to the Pacific reserve force, expressing the desire that all work on these reserve vessels be completed as early as practicable, so that "they will be in all respects ready for service at sea." He points out that this letter was prepared by Admiral McKean, chief of the Division of Material, officer of naval operations, and he took occasion to praise highly the work of Admiral McKean and other officers in the department.

Admiral Fullam told you how strenuously all the officers and men on the Pacific worked to get in readiness not only the cruisers, but the submarines and the vessels from the Asiatic station and Honolulu on their way to the Atlantic and the European war zone; and how, in spite of limited personnel, this was accomplished.

OFFICERS IN DEPARTMENT DID THEIR FULL DUTY.

Though Admiral Fullam criticized me rather severely, he said:

I do not believe that any officer of the Navy on duty at the Navy Department at any time has intentionally failed in or neglected his duty.

That organization of that office of naval operations is the only thing that saved the day for the Navy in this war. It was a splendid thing, and those officers did splendid work, all of them. Everyone of them did splendid work. I can not make it clearer than that.

When Chairman Hale inquired, "then you have no complaint to make about inertia or lack of cooperation on the part of any officer of the Navy or any department of the Navy in any plans for the government of the Navy that you came across during the war?" Admiral Fullam said he had not. He expressed the belief that the officers of the Navy did all they could do, and his only complaint was in regard to me; that I wouldn't let them do all they wanted to do. Admiral Fullam stated with great positiveness:

I do not believe that men in civil life in any profession take duty and obedience as naval officers do, and I do not believe they do their duty as well.

RODMAN SAYS BATTLESHIPS HE COMMANDED WERE EQUAL TO ANY IN THE GRAND FLEET.

Admiral Rodman, who during the war commanded the United States battleships that served with the British Grand Fleet, and is now commander in chief of the United States Pacific Fleet, told

you that he knew from experience, having been a member of the General Board just prior to the declaration of war, that "there were plans and policies in existence anticipating the possible advent of our entering the war," and that these plans were, he felt sure, modified to meet new conditions as they arose. Regarding the condition of the Atlantic Fleet, he said:

I wish to state from having been in the Atlantic Fleet from the time the United States declared war, that never in my 40-odd years of service, most of which I have spent at sea, and in the latter part in the North Atlantic Fleet, never have I seen such preparedness and efficiency as obtained in our battleship fleet as at the beginning of and during the war.

Referring to Admiral Sims's statement that the division of battleships he commanded for a year or so in the war zone was not prepared when we entered the war, and was not homogeneous, Admiral Rodman said:

I have not the slightest hesitancy in say that the ships of this division at the time mentioned, in particular, were in a very high state of efficiency, and while they were sent to our navy yards for a few days prior to sailing. It was only to put on the finishing touches while in dry dock and clean their bottoms so there would be nothing left undone to reach the maximum state of efficiency for the work in which they were about to engage.

The first knowledge to reach me that I was to command this division, composed of ships none of them under my command at the time (that was because a number of coal burners had to be selected), was while I was on board Admiral Mayo's flagship on a certain afternoon. Realizing that it necessitated shifting several flag officers and other details before leaving his flagship, by his permission, I immediately sent signals giving information and orders for movements, so that they might proceed to their home yards for docking, cleaning bottom, and a final grooming before their departure for the war zone.

Three weeks later we joined the British Grand Fleet, which had been in the war for three long years, at Scapa Flow, in the Orkney Islands, north of Scotland. It was a matter of pride that we were at once able to coordinate and cooperate with them intelligently, without the slightest hesitancy, friction, or misunderstanding; we adopted and could use their signals, radio, secret codes, and other communications (that is one of the hardest problems we have in the Navy), and could efficiently execute their tactics and maneuvers, and conform to their war plans. This was put to the test when within three days of our arrival a signal was made for all ships to be ready to proceed to sea in two hours for active service in the North Sea, and we reported when the time came that we were ready.

From that day to the end of the war we took part in every major operation in the North Sea and some independent smaller ones. There was never a time but that we were ready when called upon; we could always steam full speed, maintain our position, and received nothing but the highest praise, not only from the British admirals, officers, and men, but from those of our own Navy who visited us.

Let me truthfully add that, without taking the slightest credit to myself as the commanding officer, but giving it to the officers and men, where it belongs, and to the years of preparedness in the American Navy, that, put it as modestly as I can, the American squadron was fully equal to any of the grand fleet.

UNITED STATES FLEET COULD HAVE DEFEATED GERMANY'S, WILSON DECLARED.

Admiral Wilson, who until March, 1917, commanded the *Pennsylvania*, flagship of the Atlantic Fleet, then commanded the patrol force, later had charge of our forces at Gibraltar, and from November 1, 1917, to the end of hostilities was commander of the United States naval forces in France, and is now commander in chief of United States Atlantic Fleet, said in his statement to your committee:

I have no hesitation in saying that no nation upon the approach of war has had a force of battleships more nearly prepared for battle than was the force to

which I was attached and which spent the winter of 1916-17 in southern waters, and I feel sure that if this force had engaged an enemy on its cruise north in the spring of 1917 the victory would have been ours.

The *Pennsylvania* being the flagship of the commander in chief of the Atlantic Fleet, I was in a good position to form an opinion as to the efficiency of the fleet. Our work (and the results obtained) clearly indicated that the commander in chief was proceeding in accordance with a well-defined policy; the ships present with the flag were well organized and efficient, with the morale high, and the active fleet prepared for any emergency.

On March 28, 1917, I was detached from command of the *Pennsylvania* and ordered to Washington to organize a patrol force. This force had been created by the Navy Department for the purpose of protecting commerce to the seaward of areas guarded by naval district forces against enemy submarines and raiders. I believed at this time that the policy of establishing this force to combat enemy activity on the Atlantic coast of the United States was well conceived, in view of the information then available, and I can state that it was well organized and its efficiency developed as rapidly as could be expected. Having such a well-established force, it could be easily transferred to another zone of operations if it were found that the enemy did not come to our coast. This force, as planned, consisted of 13 cruisers, 34 destroyers, 6 Coast Guard cutters, and 8 gunboats.

Of the 55 vessels definitely assigned to the patrol force, 24 were on station by April 16. Thirteen more joined by April 20. On this latter date 18 had not reported; 5 of these were Coast Guard vessels being fitted out for service in the Navy, others were still on foreign stations, and some were undergoing extensive repairs.

Within a month of the organization of the patrol force vessels began to be detached by order of the Navy Department for service in European waters.

On April 26, 1917, four destroyers (*Cassin*, *Cummings*, *Benham*, and *Aylwin*) were detached.

On May 1, 1917, 24 destroyers were detached.

On May 16 all destroyers remaining with the patrol force were detached.

On May 30 the *Birmingham*, *Charleston*, and *St. Louis* were detached for convoy escort.

Yachts purchased were fitted out and assigned to the patrol force. At this time, May 30, 1917, the force consisted of 22 active vessels and 8 other ships undergoing repairs and being fitted out.

On July 4, 1917, the *Albany*, *Cleveland*, and *Raleigh* were ordered to fit out for convoy escort.

On July 7, 1917, the *Chester*, *Machias*, *Yankton*, *Daducuh*, *Des Moines*, *Castine*, *Sacramento*, *Wheeling*, *Marietta*, *Nashville*, and *Birmingham* were ordered to fit out for foreign service.

These latter vessels were to comprise a force which was to be based on Gibraltar under my immediate command.

UNITED STATES NAVAL FORCES AT GIBRALTAR.

On August 18, 1917, I arrived at Gibraltar on the U. S. S. *Birmingham*, and for about two months commanded our forces based on that port, where, under the senior allied commander, a British rear admiral, our vessels protected commerce in the western Mediterranean, in the approaches to the Straits of Gibraltar, and escorted convoys between the Mediterranean and Great Britain.

There were, in October, 1917, 21 United States vessels attached to the Gibraltar detachment. These vessels performed valuable and important service to the allied cause, as so expressed by the senior allied commander.

UNITED STATES NAVAL FORCES ON FRENCH COAST.

Admiral Wilson read you the memorandum he prepared for the member of the Naval Affairs Committee of the House who visited Brest in August, 1918, from which the following extracts are quoted:

On November 1, 1917, I assumed command of the United States patrol squadron based on the French coast. On January 14 all the activities of the Navy in France were placed under my command with the title of commander of United States naval forces in France, in which capacity I continued until January 30, 1919.

The first vessels of the United States Navy arrived in France on July 4, 1917, and consisted of eight yachts. Since then the force has progressively increased, and we now have 28 destroyers, 5 torpedo boats, 15 yachts, 9 mine sweepers, 3 repair ships (plus a considerable number of United States naval vessels carrying coal for the Army between Curdiff and ports on the west coast of France), 5 tugs, and 2 steam lighters.

There are (Aug. 29, 1918) 736 officers and 7,970 men attached to these forces, exclusive of aviation.

There has developed splendid cooperation between the American and French Navies. The French have shown every disposition to assist us to the extent of their ability, and there is no disposition on their part to hamper our work in any way. They have permitted us to take complete charge of the handling of the American troopships convoys and of most of the storeship convoys.

Admiral Wilson told you of the great work done by our Navy in French waters and French ports, of the hundreds of thousands of troops and immense amount of supplies landed in France; and how in that, as well as other areas, the operation of our vessels resulted in such a notable reduction in sinkings by submarines that he was able to state to the members of the House Naval Affairs Committee when they visited Brest in August, 1918, that—

There is no doubt but that the submarine situation can no longer affect the outcome of the war, and there is no doubt that the answer to the submarine has been found in the depth charge.

Admiral Wilson presented the following table showing the work of the United States naval forces in France in escorting American troop convoys:

United States troops transported direct to west coast of France.

Prior to Nov. 1, 1917 (the date I took command)-----	47, 931
Nov. 1, 1917, to December, 1918-----	1, 004, 826
Of the latter number—	
Queenstown forces furnished escort through submarine zone, assisted through pilot waters by naval forces in France, for---	175, 211
Queenstown forces, assisted by naval forces in France, furnished escort through submarine zone and further assisted through pilot waters for-----	122, 914
Naval forces in France furnished escort through submarine zone and through pilot waters for-----	667, 932

The naval forces in France, in addition, routed and escorted through the dangerous area the greater part of the storeships coming to the west coast of France with supplies.

In the case of convoys escorted by the naval forces in France the routing was accomplished in the following manner:

Through the London office we received information as to the time that convoys would pass through certain positions well to the westward of the zone of normal submarine activity. After the receipt of this information all routing and protecting, including the preparation and issuing of operation orders to insure destroyers meeting up with the convoys on the high seas to escort them clear of all other convoys, were handled directly and entirely by the forces under my command.

Practically all homeward bound troopships from the west coast of France (many of them carrying sick and wounded), and empty storeships, were routed and escorted through the dangerous area directly and entirely by the forces under my command.

From the date I assumed command, November 1, 1917, to the end of the war, the United States Navy in France, while it completely and in the most friendly way cooperated with the French Navy was, by full agreement with the senior allied naval commander, organized, operated, and handled as a distinct American naval force under the direct and immediate command of an American rear admiral, who most ably and loyally assisted by his staff and the personnel of the entire force, was responsible for the successful carrying out of the mission of the force, viz: (a) To safeguard United States troop and store ships; (b) to cooperate with the French naval forces.

Admiral Wilson presented to you the following conclusions regarding the preparedness of the Navy and its work during the war:

CONCLUSIONS.

(1) The active vessels of the fleet were better prepared for war than they had ever been before.

(2) Full and complete plans had been drawn up to meet the enemy in case he made our coast.

(3) That from the moment war was declared the entire Navy—the department as well as the fleet—entered into the prosecution of the war with the greatest energy, and its accomplishments deserve the commendation of the Nation.

(4) As soon after the declaration of war as practicable—in fact within four days—we were in conference with the accredited representatives of the British and French Admiralties, and as soon as we learned from the naval representatives of our associates the manner in which we could best cooperate, immediate and efficient steps were taken to send our available ships overseas.

(5) A great part of our Army was safely transported 3,000 miles across the sea by the Navy, and no soldier or passenger embarked on a Navy transport during the war was lost through the efforts of the enemy.

(6) Naturally “hindsight” may discover many things that might have been done better, but when we consider that the Navy expanded six times its former size in ships, and eight times in officers and men; when it accomplished so many things that seemed almost impossible when we consider what it did do; the things it did not do, the mistakes it made are so relatively unimportant that they are hardly worth considering in comparison. Results are what count.

(7) That our naval forces from the start cooperated in a most successful manner with the naval forces of our associates in many portions of the seas; and by their splendid and efficient work materially aided in shortening the war and in this manner saving untold life and property.

AS WELL PREPARED AS ANY OTHER NAVY, FLETCHER STATED.

Admiral Frank F. Fletcher, who from 1914 to 1916 was commander in chief of the Atlantic Fleet, and previous to and during war was a member of the General Board, told you:

From my knowledge of the condition of other navies, there is no question in my mind but that the Navy of the United States, notwithstanding its shortcomings when it entered the war, was just as well prepared as any other navy in the world when the Great War burst forth.

He told you that war plans had been prepared long before, stating that:

It may be of interest for the committee to know that nearly two years before our entry into the war the General Board prepared a comprehensive war plan for conducting war against a central power of Europe. This plan covered every phase of naval operations, under the assumed conditions of war. It deals with the mobilization, organization, and composition of the fleet, its disposition and employment, maps and strategic positions, employment of auxiliaries and submarines, protection of the coast, bases of supplies on our coast and the West Indies, routes across the Atlantic, enemy's force and probable course of action, etc. This war plan with its statistical data and modifications of details from time to time to bring it up to date comprises nearly 300 pages of typewriting.

Admiral Fletcher was a member of the War Industries Board, which comprised many of the leading business men and executives of the country, and he said:

In my association with these men of affairs and of business I heard from all sides the most complimentary references to the efficiency with which the officers of the Navy Department carried on their work from the business point of view. It was frequently remarked that the able officers at the head of the material bureaus of the Navy Department, Admirals Griffin, Taylor, Earle,

McGowan, Braisted, Gen. Barnett, and others, always knew what they wanted, how much they wanted, when they wanted it, and still more, how to get it. These bureau chiefs had their representatives on practically every industrial committee of the board and their assistants never lost a point in furthering the ends of their bureaus.

In reply to Chairman Hale's question:

To what extent did the organization of the department meet the situation resulting from the war?

Admiral Fletcher said:

I think it met it admirably well. The organization that we have to-day is far ahead of anything that we have had in the past; but while it may not be perfect, and in the opinion of some there might be useful changes made, still, on the whole, I think it conducted operations of war remarkably well, and I know of no serious mistakes that were made.

Chairman Hale asked him:

In general, do you think that our battle fleet at the beginning of the war, in April, 1917, would have been able to meet and overcome the German fleet that fought at the battle of Jutland, if they had met in mid-ocean?

Admiral Fletcher replied:

I think they would have, without difficulty. That is my opinion.

ADMIRAL NIBLACK TOLD OF NAVY'S WORK IN CONDUCTING CONVOY SYSTEM, AND SUCCESS OF POLICY OF ARMING MERCHANTMEN.

Admiral Niblack, director of Naval Intelligence, who just previous to the war was a member of the General Board; from April to October, 1917, commanded a battleship and later a squadron of the Atlantic Fleet, and from November, 1917, to the conclusion of the war commanded the United States Patrol Squadrons based on Gibraltar, which conducted 90 per cent of the merchant convoys between Gibraltar and England, testified that the General Board, of which Admiral Sims previous to his departure was a member, not only had a comprehensive general war plan, begun years previous and revised constantly in accordance with information of war developments and conditions, but also submitted, previous to the declaration of war, various special plans to meet conditions in war with Germany.

He called attention to the fact that, on February 4, 1917, the day after relations with Germany were broken off, the General Board submitted a special war plan entitled, "Steps to be taken to meet a possible condition of war with the Central European Powers"; that on March 6, 1916, the board recommended that our fleet be recalled from Cuba by March 15 and assembled in Chesapeake Bay, and that on April 5, the day before the war was declared, the General Board made a report on "Assistance the United States can give the Allies upon declaration of war." That these plans were given immediate consideration and most of the recommendations put into effect as soon as possible is proved by events.

Admiral Niblack told you of the great work of the fleet in training many thousands of men to man troopships, cargo transports, and patrol vessels, to serve as armed guards on merchant ships, as well as for naval vessels. He told you that by July 1, 1917—

We had over 30 destroyers operating from Queenstown as a base, and we had in active service in the Navy 4,594 regular officers and 3,344 reserves, with 126,260 enlisted men and 32,379 reserves, or a total of about 8,000 officers and 158,600 men.

That is, in three months after war was declared the personnel of the Navy had been more than doubled. We told you that before hostilities ended the Navy had grown to 506,996 men and 31,186 officers, and a total of—

One thousand four hundred and forty-one regularly commissioned naval vessels manned and operated by the Navy, not including yard craft and the various tenders to all the naval stations and naval bases on shore.

How the convoy system worked.—Pointing out that the patrol squadrons, which were originally at work on our coast, were, by reason of organization and training, better fitted than they would otherwise have been for duty “when the call came for ships to really inaugurate a convoy system,” Admiral Niblack said, regarding that system:

The escort of cargo convoys to and from the United States and to and from the United Kingdom and the Mediterranean, consisted usually of only one man-of-war, whose principal function was to regulate the radio communication and prevent the ships from straggling. It would have been futile to have regarded the escort as able to keep off a raider except where battleships were used. The great advantage of the convoy was that the ships arrived in the danger zone collectively and at a definite time, where an adequate danger-zone escort could be assembled, which was fitted with depth charges and was in such numbers as to make the chances of a submarine extremely small if it attempted to attack the convoy.

The point I wish to emphasize and elaborate is that, with the slow-moving cargo ships, the virtue of the convoy system was entirely dependent upon the efficiency of the danger-zone escort at one of the terminal ports, and not in the accompanying vessels during the voyage. This remark must be qualified when we speak of the Mediterranean, because the entire Mediterranean was a danger zone, and therefore the escort had to be as heavy as there were ships available to assign to this duty, generally only two-thirds of what was required.

Admiral Sims states that our failure to send all of our antisubmarine vessels to the war zone immediately on the outbreak of war resulted in prolonging the war four months. A study of the vast problem of protecting the cargo ships of the Allies will show that the number of protecting vessels which we might have sent and did not send to Europe at once was so small that the results could not have been materially different.

I think we are apt to exaggerate the effect of the convoy system in lessening the number of sinkings, because I think we should take into consideration, as Admiral Mayo also points out, the employment of new and offensive measures through the use of depth charges, mystery ships, airships, kite balloons, the laying of mine barrages, the firing of torpedoes from allied submarines, combined with the use of organized patrols fitted with listening devices and hunting the submarine systematically.

ARMED SHIPS SAILED SINGLY BETWEEN UNITED STATES AND GIBRALTAR.

Stating that of the hundreds of merchant vessels plying between the United States and Gibraltar, all but one group sailed singly and not in convoy, and showing the success of our policy of arming merchantmen, Admiral Niblack said:

There were 384 cargo ships of the American merchant marine during the war which had armed guards furnished from the enlisted personnel of the United States Navy, to man the two guns with which each ship was fitted. Of these ships 2 were sunk by gunfire of enemy submarines, 1 was sunk by bombs placed on board, and 33 were sunk by enemy torpedoes. I do not think that from this data we are justified in saying that it was futile to arm ships, because statistics show they drove off 113 submarine attacks by gunfire. Of course, the chances for such ships to use their guns when sailing in convoy were not good, and it was of more importance for the ships which went singly.

One very important phase of the discussion of the convoy system which has been entirely overlooked is that during the entire war only one escorted convoy crossed from the United States to Gibraltar, and this was the one escorted by the U. S. S. *New Orleans*. This convoy was dispersed by heavy weather and was not regarded as entirely successful, because the ships came into Gibraltar subsequently singly. All the rest of the million tons of shipping which crossed from the United States to Gibraltar went across as single ships, going "on their own," as it were. These ships depended on their armed guard gun crews, and were independent of the convoy system. They actually encountered submarines, but they relied on their guns for protection.

FAST ARMED SHIPS REGARDED AS SAFER SINGLY THAN IN CONVOY.

As practically all of the ships came across the Atlantic to Gibraltar unescorted, Admiral Niblack sent the following cablegram on May 24, 1918, to the several authorities concerned:

Strongly recommended American merchant ships carrying armed guards and sailing from United States for Italy be fitted with a few depth charges prior to sailing. Such ships capable of acting as escorts to slower convoys. Am representing to Malta, with cooperation of Admiral Grant and Italian liaison officer here, undesirability sending such ships in slow convoys in Mediterranean, where value of their speed is lost through not zigzagging. Sinking of *Tyler* good illustration. Malta fixes speed at 13 knots for sailing independently. My opinion ships which can make 11 knots much safer independently than with slow convoys unless utilized as escorts and allowed to zigzag.

This recommendation of his was not approved, he stated, but Vice Admiral Calthrop at Malta cabled him:

United States vessels of over 11 knots speed, when well armed, may be sailed independently without escort between Gibraltar and Genoa and Marseille.

United States vessels furnished 90 per cent of escort for convoys from Gibraltar to England.—Admiral Niblack told you:

When the convoy system was applied to the Mediterranean Gibraltar became the principal convoy port of the world, with about one-quarter of all the allied tonnage touching there to be formed up into convoys in every direction.

The date of the inauguration in the Mediterranean is when the British admiral, on July 22, 1917, telegraphed to Gibraltar to commence collecting British and allied cargo ships with speed of between 7 and 11 knots bound for ports in the United Kingdom with view to forming them into convoys, and on the 27th of July, 1917, the first regular convoy, consisting of 14 ships, with an ocean escort sailed from Gibraltar for the east coast of England, and thereafter these convoys sailed every four days from Gibraltar for ports on the east and west coasts of England alternately, and sailed from England for Gibraltar at regular periods from Falmouth and Milfordhaven.

As previously stated, the first American man-of-war for escort duty arrived in Gibraltar on August 6. As fast as our ships arrived they were assigned to duty with allied vessels as escorts to convoys and as danger-zone escorts. The American ships differed from other nationalities based on Gibraltar in that other nationalities were employed almost exclusively in Mediterranean escort work and Malta was the headquarters of the allied Mediterranean escort forces, whereas our forces undertook also practically all escort work in the Atlantic between Gibraltar and the United Kingdom. For instance, of the 22 convoys which sailed between Gibraltar and the United Kingdom during the entire war, 200 of them, or almost 90 per cent, totaling 4,269 ships and representing 12,000,000 gross tons, were escorted both ways solely by American escort ships from our forces based on Gibraltar. This point is important because it made my headquarters Gibraltar rather than Malta. There was a further reason for my being at Gibraltar, because of the enormous number of unescorted American merchant ships which arrived singly in Gibraltar from the United States. This has to do with the importance also of each ship having an armed guard on board, as this whole traffic was independent of the convoy system. The total number of ships convoyed in local Mediterranean traffic by American forces amounted to about 4,246 ships bound for Mediterranean and far eastern ports,

supplying the American Army through Marseille, French forces in North Africa, allied forces Salonika, British forces in Egypt and Palestine, and the entire supply of Italy.

* * * * *

Admiral Sims cabled the Navy Department on June 22, 1917, saying: "As previously reported, convoys are in successful operation from the Mediterranean and Hampton Roads."

I merely wish to point out historically—

Said Admiral Niblack—

that while it is true that on May 10, 1917, the first experimental convoy was dispatched from Gibraltar to England, the next convoy, which was the first regular one, was not dispatched until July 27. His [Sims's] cablegram of the previous date, June 21, 1917, is a lucid explanation of the situation. He says in it that "the convoy system is merely a plan that obliges a submarine to fight antisubmarine craft in order to attack merchantmen."

There is, however, an important point of view which is apt to be overlooked, and that is, with the slow-moving cargo ships in convoy and with escorts made up of yachts, gunboats, and a heterogeneous lot of vessels, the escort was powerless to prevent the sinking of at least one cargo ship, and what they could hope for was that if the submarine showed its presence by torpedoing the ship, the most the escort vessels could do was to drop depth charges and keep the submarine down, and therefore from sinking a second ship. No cargo vessel that could make 11 knots was put in convoy for this reason, as it slowed her down, and she was considered much safer, even in the Mediterranean, by going on her own and zigzagging; and, moreover, much of the success of the escorting of cargo vessels in the Mediterranean was due to the absence of submarine activity due to offensive measures taken to limit their activity.

MINE BARRAGES WOULD HAVE ENDED SUBMARINE MENACE, ADMIRAL
STRAUSS SAID.

Admiral Strauss, who was in command of our mine forces which laid the North Sea barrage, told you that when war was first declared in Europe he was Chief of the Bureau of Ordnance, which position he had held since December, 1913.

Upon taking over the work of the bureau—

He said (this was in 1913)—

I was apprised of the policy of department with respect to supply and reserve of ammunition, auxiliaries and their armament, reserve guns, supply and reserve of torpedoes, mines, etc. This policy had been recommended by the General Board and approved by the Secretary of the Navy, and the bureau was actually engaged in purchasing and manufacturing this material to the full extent of funds available. This was the part of preparedness for war that was assigned to the bureau of which I was the head—

And he said that, with the aid of an able staff of officers, the work was pursued vigorously; that at the end of 1915, in answer to an inquiry by the chairman of the House Naval Committee, he was able to write him a letter showing that conditions in regard to supply and production of ordnance were, on the whole, very satisfactory.

As the war in Europe progressed many new things were learned, and as fast as possible these lessons were taken to heart and our plans expanded accordingly—

Admiral Strauss said. He gave as an instance the difficulties found by the Allies in the production of small-caliber shell in quantities, which led him to ask for and obtain sufficient funds to procure all the refills of ammunition that were stipulated in the General Board

plans, and when he left the bureau, in December, 1916, these shell were being manufactured. He told you of our efforts to increase the production of 12 and 14 inch armor-piercing projectiles; the temporary difficulty caused by the failure of one firm to fulfill its contracts; and how three large steel plants were manufacturing them when he went to sea in 1916. He said:

We had at the end of 1916 batteries of 4 guns each for 169 auxiliary ships. These batteries were housed at navy yards, and the full supply of powder, shell, primers, etc., were all prepared and ready for these ships at the nearest ammunition depots, so that in the event of war the guns could be secured on the ships and the magazines and shell rooms supplied at once.

Questioned by the chairman, Admiral Strauss stated that he considered that at the outbreak of war we were thoroughly prepared so far as ammunition and guns were concerned, and had large stores of reserve ammunition, guns, and powder. From December, 1916, to February, 1918, Admiral Strauss was in command of the *Nevada*, which took part in the maneuvers of the fleet in Cuban waters in January, 1917, and came north in March; and he testified that—

The general feeling of the fleet was one of confidence inspired by the high morale and excellent condition of the ships and their personnel.

He said the fleet was thoroughly prepared, ready to fight, and, in his opinion could have defeated the German fleet.

He told you, in detail, of the great work done by the United States Navy in laying the North Sea mine barrage, and said:

I think it is due to the United States Navy under the existing circumstances to invite attention to the magnitude of this project and to the success achieved in accomplishing it. The barrier began to take toll of the enemy's submarines as early as July 9, 1918, when one was disabled on the barrier and compelled to return to Germany. From time to time after that, even in its uncompleted state, it succeeded in sinking one.

It is not known by us how many submarines were sunk or disabled in this mine field. It has been placed as high as 23. My own estimate based on known sinkings is 10, although I am inclined to think that that is a modest one.

Speaking of the importance and effectiveness of the barrage, Admiral Strauss said:

If the war had been continued and the barrage had been completed to the Orkneys and the barrier across the Straits of Dover had been properly completed, it would have ended the submarine menace, so far as submarines going from the North Sea into the broad Atlantic was concerned. Also the barrier that we were to build across the Adriatic and across the Aegean Sea, when completed, would have actually ended the submarine operations.

NAVY HAD COMPREHENSIVE WAR PLANS AND WAS WELL PREPARED AND ADMINISTERED, ADMIRAL BADGER TESTIFIED.

Admiral Badger, who was appointed by Secretary Meyer commander in chief of the Atlantic Fleet, in which capacity he served until 1914, since which time he has been a distinguished member of the General Board, succeeding the late Admiral Dewey as its chairman, has told you of the comprehensive war plans evolved by the General Board, and of the numerous special plans submitted to meet special conditions both previous to and after the declaration of war.

Admiral Badger entered an emphatic denial of the principal charges made by Admiral Sims, saying:

The gist of the criticism of the operations of the Navy Department and the Navy now under investigation is contained in the charges of unpreparedness

to enter the war; absence of war plans or policies at the commencement of the war; vacillating and hand-to-mouth policies at the commencement of the war; vacillating and hand-to-mouth policies and plans after war was declared, resulting in extending the duration of the war, and thereby enormously increasing the allied war losses in lives, ocean tonnage, and money.

To each and all of these I enter emphatic denial. I do not mean to say that we had attained to perfection in the Navy—we never shall; that no errors of judgment or mistakes were made—they will always occur; but I assert that the Navy when it entered the war was, as a whole, well prepared and administered.

Despite the adverse criticisms that have been recently widely circulated, it may confidently be maintained that the Navy met and efficiently stood the stress of a great war; it aided greatly the allied nations, and if success is any test of a military or any other organization, then the alleged shortcomings of the Navy and its directing heads can properly and justly be dismissed from serious consideration.

Always bearing in mind the difference in size and power between the British and German fleets and our own in 1914, I do not hesitate to say that we were as well prepared as to our Navy when we entered the war as were the other belligerents in 1914.

DEPARTMENT COORDINATED WAR PREPAREDNESS IN 1915.

The Navy Department always had in view the things necessary to be done in case we entered the war. I will read, with your permission, a letter from the General Board dated March 13, 1915, approved and put into effect immediately. It proved of great value in expediting and coordinating the department's preparations for war. As the reports came in, the General Board examined them, noted progress made or the reverse, and returned them with comments to the department.

SPECIAL PLANS PREPARED BEFORE WAR WAS DECLARED.

On February 4, 1917, the General Board forwarded a communication to the department, a plan of procedure to meet a possible condition of war with the Central European Powers. I will ask your forbearance while I read it in order to show that the department was neither neglectful nor ignorant of the critical situation, as has been charged.

On March 20, 1917, war being imminent but we being still neutral, precautionary measures for the protection of American shipping was recommended. Also on same date a paper on the subject of "Assistance that United States can give Allies upon declaration of war" was submitted.

DEPARTMENT HAD NO LACK OF INFORMATION.

Admiral Badger told you of the conferences with British and French officers and the agreement reached, a few days after war was declared, for cooperation with the Allies and the sending of forces to Europe, and told you:

From start to finish of the war the Navy Department suffered from no lack of accurate information as to the progress of the war from sources outside of our own information gatherers.

In fact, the department fully understood the situation at all times. The action that it took is now a matter under discussion. Before and after the war commenced the direction of the operations of the fleet was in the hands of some of the ablest officers in the service, who were in a position to obtain and did obtain a broader view and more complete information as to the whole situation (for the Navy Department was not the only one to be considered in the operations of the war) than was possible at any other place than the seat of Government. Since that direction and operation resulted in complete success, it seems to me to be a waste of time to discuss at this late date the differences of opinion as to what should or should not have been done in the early days of the war, particularly as from it I can see no possible good to the Navy or to the country.

CAPT. PRATT SAID DEPARTMENT GAVE FULLEST ASSISTANCE AND SUPPORT TO ALLIES.

Capt. Pratt, who was assistant chief of naval operations, and as aid to that officer, in general charge of plans, policy, and operations, answered specifically the charges and criticisms made in Admiral Sims's letter, paragraph by paragraph. He testified that every effort was made to cooperate heartily with the Allies and that—

This same spirit prevailed throughout the entire naval establishment. This policy was perfectly understood by everybody in the department and was accepted as standard doctrine.

From the Secretary down there was not, from the time I entered the office, the slightest doubt as to where the war was being waged. We knew it even before he (Sims) told us. Every plan, and there were many, every effort was directed toward throwing our effective forces there. The results were by no means as satisfactory as any of us desired, but the reinforcements demanded can not be created in a day and moved like pawns on a chess board. The difficulties confronting us could not have been fully appreciated or so sweeping a statement would not have been made.

He was referring to Admiral Sims's statements in paragraphs 21 and 22 of his letter, alleging that—

There was great delay and reluctance in accepting the indisputable fact that the critical area was in European waters in the so-called submarine war zone, and that this attitude in Washington greatly slowed the sending of the necessary assistance, and necessarily resulted in prolonging the war.

Answering paragraph 26, in which Admiral Sims states that if the department had promptly accepted his recommendations and sent at once all the destroyers and other craft that were sent in the next four or five months, our naval intervention would have been much more efficient, Capt. Pratt said:

The department did accept this information as indicating the true state of affairs, and it gave heed to the recommendations of Admiral Sims. From the date I entered the office I know that the accepted doctrine was "the war is over there." The forces did not go over as fast as any of us desired, but the reasons for it do not lie in the failure to accept the recommendations made. The failure to get into the war immediately, in full force, upon the declaration is not the fault of Operations or the failure to recognize the character of the war and where it was being waged, but was for the most part due to natural causes and to causes which antedated our entry into the war.

It was not possible to press a button and move ships, men, and supplies with the rapidity desired either by Sims or by the department. All of the destroyers were not ready to move instantly; navy yards and mercantile shipyards were not ready to undertake the vast amount of work thrown at them. Submarine chasers had to be built. Tugs had to be bought, refitted, and built. Yachts had to be bought, stripped, and made ready for service. The transports, which were the seized German ships, had to be repaired, manned, and put into service. Other transports and supply ships had to be built. Arrangements had to be made with the Army for the transport of its great military force to Europe. The reorganization and expansion of the office of Operations and of the bureaus had to be undertaken. The coordination of the bureaus with this office had to be developed; the methods of administration had to be divested of their prewar conservatism, the red tape abolished, and more authority given to subordinates in the matters of detail; habits of quick and accurate thinking and quick decision under the stress of war had to be developed. The personnel had to be expanded and trained; the task of creating sufficient reserves of war supplies had to be undertaken. The organization of the various bodies which acted as the cooperating agents between the Navy Department and all other departments and with the allied representatives on this side of the water had to be undertaken. Certain essential problems of home had to be undertaken.

Though we knew that the immediate and pressing problem was the suppression of the submarine menace and acted in accordance with this knowledge, we also knew that this problem had to be considered in connection with all the other problems I have outlined. Our country could not afford to make any disjointed effort nor to move forward along any one line of action without due consideration of all lines. We had to profit, if we could, by any previous mistakes of our allies, and we had to prepare for the contingency of a long war. The situation demanded of us that we should make a united powerful effort, and in this effort the Naval Establishment had to play its appointed rôle in harmony with every other effort our country was putting forth.

Every master of military warfare and naval warfare knows that the great general's first concern is with the reserves. The weight of the first blow is ultimately controlled by the strength and coordination of the reserves. To build up our reserves was one of our naval problems and had to be considered at the same instant we were called upon to strike at the front. All of these conditions were difficulties to surmount. They retarded the flow of ships and supplies to Admiral Sims, but the spirit was willing, and the principles he laid down were, in the main, accepted. He always had back of him the loyal support of the Office of Operations and of the bureaus.

Presenting fully lists of all ships in the Navy and of those sent to European waters, Capt. Pratt said:

Gentlemen, these lists speak for themselves. Of all the antisubmarine types which are the destroyers, the subchasers, yachts, gunboats, coast guard vessels, the destroyer of 750 tons and above is the only real efficient fighter. Of these craft you will note all except 9 or 10 were immediately sent over, or docked and put in war condition and sent over. The older destroyer of 400 tons, the coast guard ships, with a few exceptions, and the yachts in the Navy at the beginning of the war, were of the Spanish War vintage, and practically incapable of crossing the Atlantic, a 3,000-mile voyage. The gunboats, except the *Sacramento* and about four coast guard ships, were of the same age or older. They, however, were sent, and with the patrol of the coast, as soon as the agreement made with the British and French admirals on this coast (acting as representatives of their admiralities) was terminated. All of the submarine chasers which were sent had to be built. Yachts sent had to be the latest and best types with sufficient radius to cross the Atlantic, and they had to be commandeered and fitted after war was declared.

Gentlemen, every one of these antisubmarine types, except a few of the latest destroyers, are not built for cross-Atlantic work. Some of our destroyers, even, had a short 2,000 mile working radius, necessitating fuel oil bases at St. Johns, New Foundland, and the Azores, to help them across. When you consider the difficulties to be surmounted to get these antisubmarine craft across the Atlantic, some of them in midwinter, praise and not criticism should be given. No other nation in the world has ever done this before, and it speaks for the determined efforts made on this side of the water and of the personnel manning these boats that they ever got there at all.

Admiral Sims has presented his evidence against the department and particularly against the Office of Operations, with a great array of facts.

Said Capt. Pratt—

Facts are like bricks; properly assembled they form an imposing edifice, but if this structure is to be enduring these facts must be united by the cement of sound reason. In making any just estimate of the situation which confronted our Navy, both at its entry into and during the progress of the war, no one man's opinion, however important his post, can be given undue weight, but all the conditions and influences here and abroad which acted on our naval war problem as a whole must be put in the balance and weighed. This problem was never localized. Our total naval effort had to be so adjusted that its weight was thrown to greatest advantage against the enemy forces as a whole. To this end it was necessary that we coordinate both abroad and at home our efforts with those of all our allies and with our own military and civil forces. This the Navy did successfully, as its record shows.

ADMIRAL M'KEAN TOLD HOW PLANS WERE MADE AND WORK PUSHED ON SHIPS AND MATERIAL, FROM 1915 ON.

Admiral McKean, who was assistant for Material, Office of Naval Operations, from July 1, 1915, all through the war period and for a year subsequent, told you of the continuous efforts and many means adopted in 1915 and 1916 to get our ships, yards, and bases in condition, to enlarge our shipbuilding and repair facilities, to improve the organization of the Navy Department and the fleet; to accumulate materials and reserves; and of the measures taken prior to and after the declaration of war.

He told you that the General Board had long before formulated general war plans—

First submitted in 1913, brought up to date in 1915, and again, with the World War going on and our entrance therein probable, were again revised in February, 1917. They were the general basic plans with which we worked, and, taken with the base plan and the mobilization plan, were sufficient for the general guidance of all concerned at the dates they were issued—

Admiral McKean told you, though he pointed out, it was necessary, of course, to add to and modify these by detailed plans for operations from time to time.

He told you of various preparations of the fleet for war undertaken in the fall and winter of 1915; of the enlargement of navy yards, bases, and shore stations; of the increase in navy-yard employees from 29,000 on January 1, 1916, to about 75,000 on November 1, 1918. He told you of the difficulties, even before we entered the war, of securing materials and supplies and fuel, and how these were met successfully. The Navy's priority list in the war was led by "destroyers, aircraft for antisubmarine use, submarines for use in the war zone," he said:

I had no difficulty in securing the approval of the Chief of Naval Operations and the Secretary of the Navy to this list and presented it to the War Industries Board and Priority Board as the official Navy Department policy.

Regarding this policy and how consistently it was carried out Admiral McKean said:

I had many contentions before the board with the Army and the Shipping Board to hold these priorities, and as an illustration of the attitude of the department I met the claims of the Shipping Board for priority in securing of turbines for their ships over turbines for destroyers. Their plea was that the only way to defeat the submarine was to build tonnage faster than the enemy could sink it. I argued that this was a purely defensive measure, necessary to be sure, but that the Navy insisted on the offensive at all times, and that while there the Shipping Board's system was in effect a scheme to "feed the submarines to death," the Navy's was to "poison" them and be done with them once and for all, besides saving the goods and guns which would be lost by the Shipping Board's system. Our system would, in addition, decrease the enemy morale. We won and destroyer material, labor, power, fuel, transportation were given precedence over everything else for ourselves and everything else for our allies, except what was shown by them to be actually needed at the front to enable their troops to hold on until we could get into the game in sufficient numbers to be of assistance.

And I wish to say here that the same priority was given to the alterations and repairs of destroyers, yachts, chasers, etc., being fitted for duty overseas. This gave them precedence over capital ships of the fleet for repairs in the same way, and for the same reasons, that our whole building program was absolutely stopped, so that men, materials, etc., could be concentrated for building destroyers, tugs, mine planters, chasers, etc., for use overseas against enemy submarines.

I wish to accent "overseas" for, until this discussion came up, I never thought anyone had any doubt of the policy of the department that the war was in Europe, and that Operations intended to keep it there.

As to the extent of these demands, there is submitted herewith a list of all types of vessels, completed and authorized or building on April 6, 1917, and a corresponding list of the date November 1, 1918, which shows that at the beginning of the war, April 6, 1917, we had 344 vessels of all types completed; 204 authorized or building, making a total of 548; that we had completed on November 1, 1918, 1,504 vessels of all types; that we had authorized or building 656, making a total of 2,240 vessels on November 1, 1918; that of this total there were, on December 1, 1918, 463 vessels abroad; and in addition there were 100 other vessels traveling back and forth from Europe to the United States.

There is also submitted a memorandum of the head of the Division of Naval Districts, Rear Admiral Osterhaus, showing that we took over through commandeering, purchase, charter, or lease 1,110 private vessels, motor boats, yachts, tugs, steamers, lighters, trawlers, and fishing boats, schooners, tankers, ferry and house boats and barges; that in addition to this 1,110, we took over from other Government departments, Coast Guard, Lighthouse Service, Coast and Geodetic Survey, Immigration Service, Public Health Service, Bureau of Fisheries, Panama Canal, and borrowed from the Canadian Government a total of 135, making a grand total of vessels taken over, converted to Government use, and equipped for Government service, 1,245 craft of all types, sizes, and kinds.

That in addition to the above we converted to troop transports and the Navy operated for the Army a total of 140 transports. This includes 25 of the Navy's battleships and cruisers.

That, in addition to the above commencing in February, 1917, we remodeled for armed guards and for the carrying of Huns, 384 merchant vessels, including vessels for our Allies as well as our own.

That during the later part of the war, in addition to the fighting fleet and vessels given above, the Navy Department operated and maintained 378 vessels in the Naval Overseas Transportation Service.

Each and every one of these vessels referred to above required some alteration to adapt her to the new service. A great many required extensive repairs. All made demands on material and labor for maintenance throughout the time of their service. This was in addition to the building, repair, and maintenance of vessels of the Regular Navy, and these activities were carried on at the same time as the others, involving the building of new types and the repair of the main fleet units, but the work of the various classes was kept separate in so far as possible and placed in different yards, and when in the same yard priorities were given in the order of relative importance and the urgency for each type, and the highest priority was, as previously stated, always given to craft for overseas, and first of these craft to destroyers.

The admiral told you not only of immense work during the war in building and repairing ships, but of the large material required for the northern mine barrages, of the development of submarine detective devices, and the various measures we undertook, and said:

No one supposed that any one scheme in operation or contemplated would prove 100 per cent efficient, but we did expect that with destroyers, armed guards, mine barrages, air patrols, submarine chasers, etc., that we would reduce the submarine menace below the danger point, and we did hope these various methods combined, would, in the end, break the enemy's morale, or in slang, that we would "get the Hun's goat." We did, and the final smash of Hun morale started in Kiel, the home port of a large number of German submarines.

While there were and always will be delays, I do not believe that the sum total of all these delays prior to our entering the war, or after our entering into the war gives the slightest foundation for anyone to justly make the charge against the Navy Department, that it was responsible for delaying the end of the war four months.

Admiral McKean also said:

There has been great to do about our alleged delay in entering whole-heartedly into the war and sending immediately all our antisubmarine and other forces, even including battleships, overseas. As previously explained in this paper, there were many good, and to me, sufficient reasons why the immediate sending of all craft that afterwards were sent, was a physical impossibility and here

I wish to state that in my opinion, the stripping of our coast of all of its defensive vessels in the first weeks of the war, when we had a perfect right to except from the demonstration already made by the German, that he would send submarines to our coast to break up at their origin, off our ports, our supplies of food, munitions and troops, and while there has been a great to do about the war being all "over there," the submarine menace was all "over there," it could very readily and profitably, in my opinion, have been made "over here."

Imagine the result in the early stages, had the three submarines that came in 1918, arrived off our ports of New York and capes of Virginia in April, 1917. Public opinion and the Congress would not have permitted us, had we so desired, to strip the coast, and in my opinion, such an attack at that time would have so upset our plans, that we would not have been able to organize a sufficient convoy force for our troops, would not have been able to send any patrol ships abroad, as we did later, and the placing of 2,100,000 soldiers in France with 600,000 of them at the fighting front when the armistice was signed, would have been made impossible for at least a year after it was actually done as we worked it out.

It is my opinion that the retaining of the patrol force on our own coast, the organizing of our harbor defenses, mines, nets, etc., was an absolutely correct military step of itself, and besides, this permitted us to repair, equip, and dispatch different groups and different units in much better condition and much readier for effective service, than would any of these units have been, had we attempted to send them by telegraph as seems to have been suggested in Admiral Sims' testimony.

It is further my opinion that the method pursued was absolutely the correct one, that there was no delay which could be avoided in the repair and equipment of the vessels sent, that there was no delay that could be avoided in building additional vessels of the destroyer type, that there was no delay that could be avoided in the purchase and conversion of the yachts, the equipment of the coast guard vessels, or the building, training, and assignment of submarine chasers. I believe that the Navy Department in this respect did the absolutely correct thing from the military point of view, and that it should be complimented instead of cursed for the way it did it.

"Everything that the Navy had control of was prepared, and every possible step taken," Admiral Benson testified. Admiral Benson, who, from May, 1915, to September, 1919, was Chief of Naval Operations, told you that just after he became Chief of Operations, in May, 1915, all of the bureaus were ordered to report their readiness for war; he told you of the new fleet organization that was put into effect; of the survey of merchant vessels and privately owned craft that could be used as auxiliaries; of the organization of naval districts; of the creation of a new system of communications; of the joint boards that arranged complete plans for the working with the naval service of the Coast Guard, the Coast Survey, and other branches which would come automatically under the Navy Department in case of war; of the accumulation of extra supplies of powder and ammunitions, and of various other steps that were taken in 1915 and 1916 to put the Navy in a state of preparedness.

The following is quoted from his testimony (pp. 4460 to 4464) :

I immediately took steps to ascertain the conditions of the various bureaus of the department and their readiness for war. The General Board had already taken up the subject a short while before, and, I think, on the 28th of May the letter went out, the order to the bureau chiefs, to report at a certain time their readiness for war, and report any features in which they were not prepared for war, and periodically after that they had to make reports of progress made in getting their bureaus in shape.

An immediate study was begun with the General Board, of which I was a member, and at my request, to study and prepare a proper organization for the whole fleet. That was carried through and work finally completed, and after approval by the Secretary it was put into force. It was an organization that carried us through the war and proved successful in every particular.

The CHAIRMAN. When was that done?

Admiral BENSON. In 1915, soon after I assumed the office of Chief of Naval Operations.

In addition to that the inspection board was increased in number, so that all of the vessels that were suitable as auxiliaries, or for such purposes as they might be needed for in time of war, were carefully inspected; but before the inspections took place the General Board had very carefully studied out and we had outlined the exact requirements for each type of vessel, such as refrigerators, transports, colliers, and mine layers, or whatever we wanted to use them for. All the details were carefully worked out.

This list of requirements was given to the board of inspection. They inspected every vessel that we had, and each one, as it was inspected, after comparison with the requirements of that particular type, was assigned to that particular duty in case of war, the yard to which she would go to have the necessary alterations made was assigned, and a list of the equipment that would be necessary was made out and a copy furnished to the bureau concerned and to the yard concerned.

A statement of the changes that would be necessary to be made in the way of alterations was given to the bureaus concerned, and they were required to make the necessary plans and to have them at the navy yards, and as fast as the funds were available this various equipment was ordered to be gathered and collected at these various yards so that in case of war there would be no delay in putting these vessels into operation. That was carried out very successfully. There was not exactly a mining division, but an officer was assigned to take up the question of preparing mines and vessels to exercise and be prepared for mine work.

The naval districts were organized and an organization worked out for the naval districts, and the way in which these various districts would be handled in case of war and what would be necessary to do was also worked out.

In the system of communication, as I said just now, quite a careful study had been made in regard to communication, and this study was put in proper shape in the way of rules, and the general system was approved soon after I assumed the position of Chief of Naval Operations, and this was constantly improved and the facilities were increased, and I do not remember now whether it was in 1915 or 1916 we mobilized all the communication systems in the country. They gave us, I think it was, 30 hours in which they turned over the telegraph and everything to the Navy Department, and I was able in my office to communicate by telephone and otherwise immediately to every one of our stations on this coast and to one or two on the other; and the Secretary of the Navy was able to communicate by wireless radio with a ship at sea.

The leading men and experts of the various companies came to Washington, watched very carefully what was done, and gave us memoranda of what we should do in order to increase the equipments and be prepared in case we had to use them for war purposes. This equipment was all carefully catalogued, and the room in which it was to go was marked. The position it was to occupy was marked. By degrees the switchboards were increased in capacity and every means was taken to be prepared with the communications.

The law which required the other departments, such as the Coast Guard, Coast Survey, etc., that automatically came under the Navy Department in time of war, was passed. Joint boards were ordered, and every detail that could be worked out beforehand was worked out, to see that when war was declared they would move into the other, or that regulations would not conflict and there would be no delay in their taking up their duties at once.

The questions of hospitals and of prisons, even, and who should control prisoners, and everything of that kind was carefully worked out.

The question of the extra supply of powder, of ammunition, and torpedoes, and practically everything connected with the preparation of the Navy Department for war was carefully followed up, and everything was done that could be done with the means that we had at our disposal.

A small appropriation was gotten through in 1916, even anticipating the fact that we would want to put guns on those auxiliaries, and extra appropriations or allowances were made to meet the extra demands that had been made for the preparation of powder and torpedoes and various additional equipment that would be needed. That was carried, I believe, as far as was possible, so that everything that the Navy Department had control of at the time was prepared, and every possible step was taken, short of mobilization of the fleet, that could be taken to prepare the equipment that we had and to as far as pos-

sible prepare additional supplies—to get ready. That I considered to be my function, and it was accomplished, and as far as possible it was done without any unusual display and without any opposition from anybody.

In regard to the Secretary's recommendations to Congress, the record of Admiral Benson's testimony contains the following:

The CHAIRMAN. It is not your opinion that the Secretary could and should have presented to Congress the condition of the Navy in the years just before we entered the war in a different way from the way he did present it in order that Congress might be more fully and correctly informed as to the conditions in the Navy?

Admiral BENSON. My opinion is, Mr. Chairman, that he did remarkably well—very much better than had been done in the previous years—and he kept in close touch with the Naval Committees of the House and the Senate; and while he did not always ask what was recommended by the General Board and by others, I think he usually recommended and secured everything that he could possibly have secured from Congress.

Under cross-questioning, the admiral said in his opinion the question of personnel should have been presented more fully, but he could not conscientiously say the Secretary "should have made fuller recommendations in regard to material"; that the Secretary was "in close touch with the committees of Congress and was following a definite policy."

That the Navy Department's policy from the beginning was to cooperate closely with the Allies was stated by Admiral Benson:

The CHAIRMAN. Now, Admiral, what was the general policy governing the Navy Department in regard to participation in the war at the time of our entry into the war?

Admiral BENSON. It was to do everything we possibly could to assist the Allies.

The CHAIRMAN. That is, to cooperate with the Allies?

Admiral BENSON. To cooperate with the Allies to the fullest that our facilities would permit.

The admiral stated that as Chief of Operations and the naval advisor to the Secretary of the Navy he was responsible for the naval operations of the war; that they were carried out successfully, and the results speak for themselves. He gave his reasons for the various decisions made regarding operations, the sending of forces abroad, the adoption of the convoy system, the policy of maintaining the fleet in home waters, and various other criticisms. He said Admiral Sims sent the department all the information that was needed; that it had ample information from Sims and other sources upon which to base its decisions; and that, in his opinion, "Admiral Sims was given all the information that it was necessary for him to have to properly perform his duties." Regarding Admiral Sims's status, Admiral Benson said:

Admiral Sims at first, as has been stated, was sent over to obtain information upon which the committee could act. After that he was put in command of our forces over there; but at all times Admiral Sims was an assistant to the Chief of Naval Operations, with an office in London, simply coordinating and keeping a general supervision of the forces over there, seeing that the policies that the department decided on were properly executed, and as far as possible keeping in thorough touch with the whole situation and keeping the department informed, in order that it might be able to formulate policies and give proper instructions; but it was never intended nor did the situation permit of Admiral Sims occupying any such position as he felt that he should occupy and seems to indicate in his letter to the department that he did occupy.

I feel that as Chief of Naval Operations I was responsible for the policies carried out in all parts of the world, in Europe as well as elsewhere, and I

looked upon Admiral Sims as my representative to carry out those policies in European waters.

Describing how our destroyers at Queenstown were operating under Admiral Bayly, our forces in France under Admiral Wilson, etc., Admiral Benson said:

So that at all times Admiral Sims was, as a rule, except from time to time when he may have visited the various stations and went to Paris for consultation, living in London, and the forces were being operated in the field in a manner very similar to the way in which they were being operated by my orders through others from Washington.

Questioned regarding delays alleged by Admiral Sims, Admiral Benson said he did not think there were any delays that were material to the cause:

Senator PITTMAN. Admiral, do you know of any delay on your part or on the part of the Secretary of the Navy, whether justifiable or not justifiable, in acting upon any recommendation of Admiral Sims that affected the duration of the war?

Admiral BENSON. I do not think in the slightest, Senator; and I do not think there was any delay material to the cause practically in any way, either by the Secretary or by myself.

Senator PITTMAN. Yes.

Admiral BENSON. In assuming responsibility, as I did and have, for the naval operations I do not admit that there was any unnecessary delay or any improper compliance with the demands of the situation, but, on the contrary, I insist that the situation was met in the most efficient and thorough manner and as far as possible with the facilities we had and the situation permitted.

Gentlemen, you have had before you 11 high ranking officers of the Navy who during the war had charge of our most important activities. Ten of them in their testimony refute the charges made by Admiral Sims, the eleventh. The vote stands 10 to 1. If Admiral Gleaves, who is commander in chief of the Asiatic Fleet, could have been here to testify, I have no doubt the vote would have been 11 to 1 of the 12 officers who, under the Secretary of the Navy, had the places of chief responsibility during the World War. The officers who, upon minor details, made criticisms either were not in the war at all or held positions not comparable in responsibility to those intrusted with the 12, some holding positions so unimportant or subordinate as not to give them opportunity to know the great policies and activities of the Navy in the World War. You have heard their testimony, and you know that, besides the great record made by the Navy, the charges brought forward touch matters which had only the smallest bearing upon the Navy's great service. The really one serious charge—that the Navy Department by delays prolonged the war four months—has been so completely disproved that even the most ignorant or prejudiced can not give it credence. If all the delays alleged were true—and they are not—they would have had no appreciable effect upon the result.

The war was won, and that the Navy did its full share toward that great result has been thoroughly established. That it was 100 per cent perfect, that no mistakes were made, no one for a moment contends. But it has been established that fewer mistakes were made in plans, policy, or operations than were made by any other Navy, or by our own Navy in any previous war. The testimony proves that no department of our own or any other Government functioned more efficiently, made decisions more promptly, or put them into execution more swiftly or successfully.

Was any mistake made in the operation of our transports, their navigation, their escort, their protection? Not a single American transport was lost or torpedoed on the way to France, and not one soldier on a troopship manned by the Navy lost his life through enemy action. That achievement, the outstanding accomplishment of the war, made possible only by wise planning and capable, and often heroic, execution, made possible shortening the war by at least 8 or 10 months. The war ended in November, 1918, because the Navy made it possible to transport 2,000,000 troops to France, almost a year before military and civil authorities thought that big transportation job was possible. And, bear in mind, gentlemen, that the war was won in France by fighting soldiers, and that the rapid pouring of an almost inexhaustible number of American soldiers into France is what won the war. Other activities helped, but this was the decisive and determining factor, and the credit for that is due to the most hearty cooperation of the Army and Navy officials and the whole organization of both departments. That is in the testimony before this committee, and that will be the verdict of history.

Did we perform well the task of operating cargo transports, carrying munitions and supplies to Europe? Before hostilities ended we were operating the largest cargo fleet ever under a single management, 378 vessels of 3,800,000 dead-weight tonnage, and we transported over 6,000,000 tons of munitions, fuel, and supplies.

Did we give ample protection to American shipping? The Navy armed 384 merchant vessels, furnishing them with guns and gunners for protection against submarines, and furnished destroyers and other craft for escort through the danger zones. The total loss of American merchant tonnage did not equal the amount of shipping the German submarines sank in two weeks of the month we entered the war.

Did we cooperate promptly and whole-heartedly with the Allies? Admiral Sims was sent to London to get in close touch with the British Admiralty before war was declared. Immediately after the declaration of a state of war April 6, 1917, we got into communication with the British and French commanders in chief in the western Atlantic, four days later they were in conference with Admirals Benson, Mayo, and Wilson, in Hampton Roads, and the next day, April 11, came to Washington, where, in conference at the Navy Department, with the Secretary, the Assistant Secretary, and the General Board, arrangements were made for the fullest cooperation and their suggestions regarding the assistance we could render were immediately adopted. From beginning to end there was never any question as to our whole-hearted support of the Allies, and no navy in history ever so completely, cordially and harmoniously cooperated with other naval services as did our own with the navies of the Allies.

Did we sent promptly to Europe the vessels asked by the Allies? They requested, at the conference of April 11, that one or two destroyers be dispatched. Orders were given at once to send six. The Eighth Division proceeded to its home yard, fitted out for long and distance service, sailed from Boston April 24, made the voyage of 3,000 miles and arrived at Queenstown May 4. Admiral Sims is the only person I know who doesn't consider that pretty quick work.

Did we send over as many destroyers as the British requested? Admiral Sims informed us, in a cablegram dated April 24, that the

British Admiralty and war council had concluded that "twenty-odd" American destroyers "based on Queenstown would suppress the dangerous submarine activity in that area, and keep it suppressed." Within a month after that time there were either at Queenstown or on the way 28 destroyers, more than half the total number of modern type in our Navy.

Did we send to Europe as many ships and men as we should or could have sent? Before the end of hostilities the United States naval forces in European waters comprised more vessels and more officers and men than were in the entire Regular Navy when we entered the war—373 vessels present, 27 more assigned; 81,000 officers and men. The total forces operating either in European waters or manning troops or cargo transports reached 834 vessels and 175,000 officers and men, including armed guards on merchant vessels plying the war zone. When hostilities ended there were some 2,000 destroyers contracted for or under construction, hundreds of merchant ships building by the Shipping Board to be manned by the Navy, and about 200,000 men in training, nearly all for service either in Europe or on vessels sailing to and from Europe on war or supply service.

Did we delay the putting into effect of the convoy system? The allied admiralties had been considering it for three years before we entered the war, and at that time were following exactly the opposite policy, dispersion of shipping. The first small experimental convoy tried by the British arrived from Gibraltar May 20, but the next Gibraltar convoy was not dispatched until July 27, Admiral Niblack told you. In June several more experimental convoys were tried, from Hampton Roads and other ports. When its success was demonstrated, we adopted it. Our destroyers at Queenstown performed escort duty from practically the beginning of the experiment. Though some eminent naval authorities, both in America and England, doubted whether it could be made a success, the President and myself favored it from the beginning, and no one in the Navy Department, so far as I know, ever "resisted" the adoption of the system. We put it into effect soon after the British did, and joined with them in its operation. Admiral Sims himself says our vessels made it possible to put the convoy system into effect. Could that have been possible of we had "resisted" or sought, in any way, to prevent its adoption or obstruct its operation?

Did we do our part to make the convoy system a success? Admiral Sims and others have told you that the destroyer force at Queenstown, which was in the most critical area and furnished a large proportion of danger-zone escorts for the trans-Atlantic convoys, was from May, 1917, on "almost exclusively American." Admiral Niblack told you that the United States forces under his command furnished 90 per cent of the escorts for cargo convoys between Gibraltar and the United Kingdom. The forces under Admiral Wilson also furnished a substantial part of the escorts of convoys to and from French ports.

Did we adopt and carry out the principle of unity of command? The first destroyers that sailed had orders to report to the senior British naval officer at Queenstown, and all our destroyers at that base operated under the direction of Admiral Bayly, of the British Navy. Our battleships, under command of Admiral Rodman, formed a division of the British Grand Fleet commanded by Admiral Beatty. Our forces under command of the American admiral in France oper-

ated in the closest possible cooperation with the French forces, as our vessels at Gibraltar operated with the British, and those at Corfu with the British, French, and Italian forces in the Mediterranean.

Did we joint with the British, French, Italians, and Japanese in a body which would coordinate the naval activities of the Allies? Admiral Benson told you that it was he who suggested the formation of the allied naval council and took part in its organization; Admiral Sims, his subordinate, acting as his aid when he was present and representing him as a member of the council when Benson could not be present.

Did the Navy Department, as Admiral Sims charges, fail to give him its confidence and support? It did not. Though he was sent over first merely to get information and make recommendations and was all during the war in reality an assistant to the Chief of Naval Operations, stationed in London, he was given the rank, first, of vice admiral and later of admiral. Though he exercised no sea command, he was made force commander, with the title of "commander of United States naval forces operating in European waters," and orders to and reports from our various commanders in Europe were sent and received through him. We gave every consideration to his recommendations, and most, but not all, of them were adopted. Events proved that at times we placed more confidence in his recommendations and opinions than they deserved. He had a small staff at first, but eventually had the largest staff ever given an American or, I am informed, any other naval officer, comprising 200 officers and a thousand enlisted men and clerks. His headquarters in London, he told you in the medal-awards hearing, comprised 10 houses of 25 rooms each—250 rooms. That's more officers and rooms than we had in the entire Navy Department before the war.

But, Mr. Chairman, we did not permit him to become a member of the British Admiralty. We did not make him commander in chief. The Secretary of the Navy and the Chief of Naval Operations did not resign their functions to him. We did not, as he suggested, move bodily to London "the planning and directing end of our Navy Department," "leaving behind in Washington only the organization for insuring support and coordination of home material effort." I am quoting his exact words. We were charged with the administration of the United States Navy, not a Simsian navy. Congress had not authorized us to move the Navy Department from Washington to London, nor had it provided that it be made an appendage of Sims or a branch of the British Admiralty.

Not to have done so may have been grievous error that Sims can never understand or forgive. If so, we are prepared to take the blame for it, along with the decoration of honor which most Americans will confer for keeping the Navy always on an even all-American keel.

It has been charged that we did not send across the Atlantic ocean-going tugs as soon, or even as many, as Sims called for. We did not. I wish we had possessed or could have commandeered more tugs for the pressing use abroad and on this side of the Atlantic. They were sorely needed on both sides of the ocean and the number was distressingly small, and we built new ones as fast as facilities in America could construct them. The few tugs fitted for ocean service

handled the immense amount of shipping that poured into and sailed out of our ports, carrying soldiers, munitions, food, fuel, and supplies to Europe; that handled our large coastwise traffic; and aided in hauling coal and materials to our shipyards and munition factories. There were all too few of them for the pressing needs at home and abroad. It was these very tugs which in the terrible winter of 1917-18 hauled coal north and kept the munition plants, factories, and shipyards of New England going, so the soldiers on the firing line could be supplied. They were doing war work over here quite as much as if they had been at Queenstown. We did send all we possibly could, but nothing like as many as we desired to send, for Admiral Sims did not desire them sent across any more than did the Navy Department, which used every energy to hasten construction so as to increase the number that could be sent.

Did we, as Sims charges, decide to establish certain naval bases in Europe before he had proposed it? We did. After conference with the authorized and distinguished naval representatives of France and England, who were sent with the war missions to Washington, we decided early in May, 1917, to establish bases at Brest and Bordeaux, and notified Sims. There was every reason for doing this, and deciding upon it promptly, as troops and Army materials and supplies were soon to be sent to Europe, and it was important that we establish, as soon as possible, naval bases in the best ports that were available. Having an obsession, which our British Allies seemed to expect would materialize, that we should base all the overseas forces we sent over at Queenstown, Sims objected and complained he had not been consulted. We disregarded his protest and established bases at Brest and Bordeaux, at St. Nazaire. It was through these ports that American troops poured by the hundred thousand, and supplies and materials by millions of tons. It is a matter of regret that we could not have established the base at Brest sooner, and that the Army had not been sooner given the facilities which it utilized later as the greatest port of debarkation for our troops. After Brest was made the chief French port for American ships, the Army built barracks for many thousand soldiers who passed through Brest. This camp was under the direction of Col. Smedley D. Butler, of the Thirteenth Regiment of Marines (now Gen. Butler), and too much praise can not be given to the Army officers and to Gen. Butler for the great work done at that base. I visited it twice and wish to record my admiration for Gen. Helmuth of the Army, and Gen. Butler of the Naval Establishment, for the building of a camp from a small and uninviting barracks to one of the largest and best arranged and best conducted camps in the world. These bases, established without waiting for the recommendation of Admiral Sims, became the centers of our activities. It was much the same way in establishing the important bases at Gibraltar, the gateway to the Mediterranean, and at the Azores, the halfway point between Europe and America.

Sims devotes pages to his criticisms regarding the Azores and, it appears, makes the sending of a few vessels there for temporary duty the basis of his charge that forces were "dispersed from the critical area to meet diversions of the enemy." This is a matter that was handled by Operations, and the details were furnished you, I believe, by Capt. Pratt, but that was such a minor affair that even Sims

can hardly magnify it into a thing of any importance. If there was anything in which our wisdom was proved by events, it was the establishment of these bases. You would have thought that any officer who took a broad view of the situation would have recommended their establishment as soon as he reviewed the situation. But Sims didn't. His sole idea seemed to be to keep all our forces in British waters and concentrate them at Queenstown. He even resented the order to send out our own destroyers to protect our own transports when the first American troop convoy was sent over. He was never at Brest but one time while admiral Fletcher was there, which was up to the end of October, 1917, and that was when he went with Admiral Mayo to inspect the base, and then he remained only four or five hours. He never visited Gibraltar during the war, I am told.

Were there, as Admiral Sims would have you believe, no war plans worked out and no policy adopted before war was declared? Admiral Badger, head of the General Board, told you that the general plan had been matured years before, and constant changes kept pace with war developments and conditions. He told you that on February 4, 1917, the General Board submitted numerous recommendations of measures to be adopted in war with the Central European Powers. That was the day after this Government broke off relations with Germany. He told you of various other war plans submitted in February, March, and early April, all designed for the war we were to wage, and to meet the conditions we were facing. That these recommendations, with few exceptions, were approved and put into effect is shown by events. As they recommended, we brought the fleet north from Cuban waters and placed it, safe from submarines, in Chesapeake Bay. We armed American merchant ships for protection from submarine attack; we contracted for many more destroyers and 355 submarine chasers; we organized the patrol force to patrol our coasts; we prepared at once to mine our harbors and place nets across our channels. We began taking over such privately owned yachts and other craft suitable for auxiliaries as were tendered, and converting them to the types needed for patrol, mine laying, mine sweeping, and other uses, though most of such craft could not be secured until Congress later granted us the authority to commandeer vessels.

All this was in progress before Sims left for Europe. He was president of the War College and a member of the General Board. How could he have been totally ignorant of all these plans? The General Board, as did every official of the Navy, favored the closest cooperation with the Allies, in case of war, and sending to Europe such craft as would be of most assistance to them, and aiding them in every way we could. That was our fixed policy, adopted and thoroughly understood. How can Sims pretend that he didn't know it? Why, gentlemen, it was in pursuance of that very policy adopted by the department before Congress declared war, that Sims was sent to Europe, and he says so himself in paragraph 8 of his letter. There never was any doubt whatever about it.

Another one of our policies was to increase the Navy in ships and personnel, especially antisubmarine craft, as rapidly as possible. The President had, on March 24, 1917, authorized the increase in the

Navy to its full emergency strength. I had sent out the call for recruits; we had started a big recruiting campaign. This was published in every newspaper in America, as was also the fact that we were going to build many more destroyers and hundreds of submarine chasers. The papers contained lists of ship and boat owners whose craft had been offered to the Government, and of vessels and motor boats being taken over for conversion into naval craft. This was before Sims went to Europe. If he didn't know about it he was about the only man in America who was in ignorance of the active and efficient work and policy of the Navy Department.

Admiral Sims asserts that, "Not until July 10, 1917, did the Navy Department outline a policy as regards naval cooperation with the Allies." Yet he knew just after he reached London the details of the agreement reached at the conference with the British and French admirals at the Navy Department April 11, 1917. He knew in April that it was our policy to send over destroyers and patrol craft, for a division of destroyers sailed April 24, arrived May 4, and were followed by 22 more within a month. He was informed early in May that we were establishing bases on the French coast. He knew that in June we were sending troops over in convoys escorted by cruisers and destroyers; they sailed June 14, and he was ordered to send out destroyers to meet them. He knew before July 10 that we had adopted the convoy system, for we had not only notified him but were putting it into effect. He knew we favored an aggressive naval policy, for we had proposed various offensive plans, beginning in April, including the possible blockade of German ports and the North Sea mine barrage. He had received scores of cablegrams and letters in regard to various policies and plans. We were not merely proposing to cooperate with the Allies, we had been cooperating with them from the day we declared war.

Admiral Sims charges that we did not allow him to select flag officers who were to serve in Europe. That is correct; we did not. We had no idea of allowing him to determine which admirals should go to Europe and which should not. His attitude toward his fellow officers (of anywhere near his own rank) was and is notorious. We had no idea of allowing him to choose his personal favorites for important commands. The flag officers were sent to Europe, the men who had actual command of our ships and stations and carried out our operations were selected because of their peculiar fitness for the work to which they were assigned, and were chosen for their ability and energy. Their service amply demonstrated the wisdom of their choice. Rodman in command of the battleships, Wilson at Brest, Niblack at Gibraltar, Strauss in charge of laying the northern mine barrage, Dunn at the Azores, Rodgers at Bantry Bay—where could you find better officers or those who could have done the work with greater efficiency? No military rule was violated by the department in this, because Admiral Sims was not commander in chief, though he desired such position, and the department declined his request.

Your subcommittee has now been investigating for months "the matters referred to in the letter of Admiral Sims of January 7," and at one time or another has gone into many activities of the Navy not only during the war but for a number of years prior to it—indeed, practically since I became Secretary of the Navy on March 5, 1913.

The work of the Navy was stupendous and mistakes were unavoidable, but I feel sure that the testimony given before your committee has not only confirmed the general impression of the splendid work done by the Navy but has given an even clearer and more impressive exhibition of the efficiency with which the Navy did its work of preparation for war and operations during the war.

During the four years ending April 1, 1917, which immediately preceded our entry into the war, Congress showed more liberality and vision in allowing the Navy to expend in response to the urgings of the Navy Department than in any previous four-year period. During this period new ships were authorized of a total displacement tonnage of 1,047,462, as compared with a total tonnage of 1,056,560 built and building on April 1, 1913. This applies to fighting vessels built and building and is exclusive of fuel ships and other nonfighting auxiliaries. The figures for 1917, however, do not include vessels of the war program, some of which were already ordered on April 1, 1917. Provision was made for reserve munitions far beyond what had ever been done before. On April 1, 1913, the Bureau of Ordnance not only had no reserve projectiles (4-inch and up) but was 228,000 short of requirements. On April 1, 1917, there was a surplus or reserve of 112,000. The reserve of other munitions were: Torpedoes, nine and one-half times; smokeless powder, one and one-half times; mines, four and one-half times the reserves of April 1, 1913.

The CHAIRMAN. I asked you, as you will remember, back in the hearings, to give a list of those various articles, and how many we had on hand.

Secretary DANIELS. Yes.

The CHAIRMAN. Has that been done?

Secretary DANIELS. I will make a note of it and supply it.

As regards supplies and stores of all kinds, the records show the same thing, a great increase in April, 1917, over the amount in 1913.

As regards personnel, the story is the same. The total enlisted strength authorized by law on April 1, 1913, was 51,500; on April 1, 1917, 97,000 and during this period provision had been made by which the strength in commissioned officers would automatically keep pace with the enlisted strength. There was no provision for reserves in 1913, the small Naval Militia constituting the only reserve force. By 1917, adequate provision in the naval bills of 1914 and 1916, for reserves had been made upon the urgent solicitation of the Navy Department.

As to organization, I believe no officer who has touched on that point, however he may differ from others in some respects but has testified that, for the purposes of war, the organization of 1917 was far superior to that of 1913.

Such enormous undertakings were put through during the war that we are now apt to be little impressed by the accomplishments of the period preceding the war, and figures such as are given above are needed to remind us that the prewar achievements in the direction of preparation of war were also enormous compared with anything that had preceded them.

Coming to the war itself, your record of testimony shows the achievements of the Navy in such volume that it is difficult to sum-

marize them within a reasonable space. On the material side we had built or building during the war more than a thousand vessels of all kinds, in addition to taking over and converting some 1,547 more. For the northern mine barrage alone, more than 3,000 miles away, we built and laid four times as many mines as Great Britain whose mine building and laying facilities had been developed during nearly four years of war. Moreover, our American mines were admittedly better for the purpose. The record of what was done in a material way takes many pages of your record, and I will not undertake to summarize it.

As to personnel: Starting with a total enlisted force of 70,746 regulars and reserves on April 1, 1917, we reached a maximum of 500,000—and if you add the marines, it will be 600,000; and they ought to be added—when the American Navy had the greatest force ever reached by any navy in the history of the world. These did not come from seafaring people; they were drawn from the ranks of industry and agriculture, every one a volunteer and the finest raw material in the world, but after all “raw material.” But it was American raw material and in a phenomenally short time became efficient in the tasks to which they were assigned. Few officers, even in our Navy, and none in any other navy, would have admitted in 1917 that it would be possible to recruit, train, discipline, and operate in 1918 a force of 500,000, starting with what we had in 1917. Admiral Fiske, in the latter part of 1914, testified before the House Naval Committee that it would take five years to prepare the Navy we then had for war. But in 1917 there were no faint hearts in the Navy Department, and the expansion to 500,000 men was handled without a hitch. With the great expansion of temporary officers, there was always danger of political or other influence securing positions for people who were incompetent or worse. The Secretary of the Navy gave great personal attention to this matter, and because of vigilance in this matter I believe that the cases where just criticism could be made of the Navy being a haven for incompetents and draft dodgers are few indeed.

As regards the organization: The crucial test of war showed that the changes made in 1915 to better fit the Navy for operation in war were sound. The Office of Operations was short-handed in experienced officers, like the whole Navy when a manyfold expansion was undertaken, but it did a great work in a great way. No one who heard the illuminating testimony of the officers who were responsible for what was done by Operations during the war can have any doubt of that.

You have heard Admiral Benson and his assistants take full responsibility for the operations of the fleet during the war. Under the present law, both in peace and war, the Office of Operations is charged with that responsibility under the Secretary. You have heard that in exercising my responsibility I relied fully upon these able officers and did not hamper them in purely military matters. That did not relieve me of responsibility, and I mention the matter here simply because I want my statement to show clearly that Admiral Benson and his principal assistants are entitled to full credit for the great accomplishment of a great task. But the Office of Operations, important as it is, is not the whole of the Navy Department. I have given you some intimation as to what was accom-

plished by the other bureaus and offices of the department. During this investigation there has been no charge that these great bureaus, charged with enormous financial, industrial, and technical responsibilities, did not fully measure up to the standard of maximum efficiency. You have been told that during the war the expenditures of the Navy Department were measured by billions, being greater than the total expenditures in all the years before. The bureaus were mainly responsible for these expenditures, and they were made wisely, honestly, and efficiently. The whole country owes them a debt of gratitude for the manner in which they rose to the occasion and "delivered the goods." Apparently it is the idea of some officers who have testified before your committee that the bureaus of the Navy Department should be rewarded for the wonderful work they did during the war, by being shoved several notches down in the hierarchy of the Navy Department instead of being immediately under and in touch with the Secretary, as at present.

Viewed in their proper perspective against the work of the Navy during the war, as set forth in the record of the hearings of this committee, Admiral Sims's charges shrink indeed. He attempted in his testimony to justify his inexcusable breach of confidence with reference to a confidential remark ascribed by him to the Chief of Naval Operations by connecting up the remark with an alleged lack of "will to win." I think that your committee will not only explicitly exonerate Admiral Benson from any accusation, however indirect, of any lack of "will to win," but will properly characterize such an accusation.

The specific accusation that the American Navy or any portion of it was responsible for a four months' prolongation of the war has been fully refuted. Four Admirals of the American Navy, who actually exercised command of the American forces in the war zone, have definitely assured you it is unwarranted by the facts. Many other distinguished officers, with first-hand knowledge of what went on, have repudiated and resented this charge. The most superficial analysis of the charge itself and the reasoning by which it was attempted to be sustained shows its falsity. In the spring of 1917 the United States and the Allies, with whom we were associated, had a total of some 484 serviceable destroyers. Admiral Sims's contention, boiled down, is that we should have sent more abroad. We sent 40 out of these 50 in three months after war was declared.

In fact, if you include Russia, which was one of the Allies when we entered the war, and cooperated with them until the fall of 1917, the Allies possessed 497 destroyers, for Russia had 113, and the United States, as I said, had 50. Therefore, there were 547 destroyers available to the Allies, including those of the United States and Russia.

The table prepared by the Office of Naval Intelligence, dated January 1, 1917, shows the following number of destroyers in each navy at that time:

Great Britain.....	226
France.....	75
Russia.....	113
Japan.....	53
Italy.....	30
United States.....	49

If we had sent every one of our modern type destroyers we would have had over in July only 10 or 12 more. And yet Admiral Sims actually claims that with a total of 484 destroyers available to the United States and the Allies, with whom we were associated, the war was prolonged four months because the United States did not send 50 instead of 40 destroyers to Queenstown. If a few more destroyers at Queenstown would have shortened the war four months, it is ridiculous to suppose that with a total of 484 to draw on, exclusive of the United States, the Allies would not have spared 10 or 12 for this purpose; 10 not counting Russia, although it was then in the war. The simple fact that as our destroyers reached Queenstown, the British withdrew the few they had there, shows the situation as it appeared in 1917 more clearly than thousands of words.

The other charges of Admiral Sims need scarcely be mentioned here after the full discussion and complete refutation which your committee has listened to. Much discussion has been had of the alleged slowness of the United States in taking up the convoy system. The record shows that the speed with which the United States put into practice the convoy system compares very favorably with that of Great Britain.

The very first troop transports which went across under Admiral Gleaves in June were convoyed, and so were all our troop transports. Much has been said about the alleged lack of plans and policy of the United States Navy. Admiral Badger, Admiral Benson, Admiral McKean, and Capt. Pratt, all officers with first-hand knowledge of the question have effectually disposed of that allegation. The testimony of Admiral McKean and Capt. Pratt was not sensational—I wish to read this very slowly, gentlemen, so that it may have the impression that it deserves. The testimony of Admiral McKean and Capt. Pratt was not sensational and was of necessity too technical to be fully understood by laymen. Yet I do not hesitate to say that had this investigation been had by a board of naval officers, skilled in military and technical matters, the McKean and Pratt testimony alone would have been regarded as fully refuting all the Sims allegations as regards military shortcomings. They took up the case in detail and their testimony is irrefutable.

It is really remarkable that, with the well-known advantage of hindsight, Admiral Sims has been able to find so few alleged mistakes. It doubtless seems now the major error, in the eyes of Admiral Sims, that the Navy Department did not blindly turn over to him the conduct of the war, and content itself with carrying out his instructions. I trust this is a case of hindsight. I am loath to believe that Admiral Sims believed in 1917 that the department was making fundamental errors in the conduct of the war. Certainly he never came out openly and straightforwardly with any such opinion at the time, it is difficult even now to read by implication any such meaning into his numerous cablegrams and letters. Had he felt that way, it was his duty to bring his opinion clearly and sharply before his superior officers.

I hope I may be permitted one thought in conclusion. The Navy Department was in no way responsible for this investigation. Admiral Sims's letter of January 7 was given no publicity in any way by the Navy Department; it would have received proper considera-

tion from a suitable body of competent officers in due course. When Admiral Sims deliberately made this letter public, and your committee was authorized to investigate the charges made therein, the Navy Department, of course, temporarily suspended action on his letter. It has been the policy of the department to give the committee every fact it has asked for, and a good many it did not ask for, bearing upon the questions at issue. This has unavoidably resulted in making public a number of confidential matters which would have remained confidential so far as the Navy Department was concerned, had not your committee undertaken this public investigation. They were necessary for the complete understanding of the case, and that the committee should be completely informed as to the history of the transactions which it was considering.

And now, gentlemen, I have performed a solemn duty I owed to more than half a million men who served in the Navy during the World War and served with the ardor and efficiency of a noble patriotism. Most of them have returned to civil life, and they, with thousands of those still in the Navy, share a feeling of pride that in the greatest war in the world's history they were privileged to wear the uniform of the Navy and to have been a part of an organization which helped to save the liberties and rights of mankind. They came into the Navy, the Regulars and the Reserves, with an elation and a spirit of high emprise that glorified American youth. They served loyally and well. I can not find terms to express the sense of national gratitude to them. If the charges which shocked them when they were made, had been established, these youths would have felt humiliation instead of, as they feel they deserve to do, now that every charge has fallen to the ground, hold their heads high, feeling worthy to transmit to their children the rich legacy of what they did when their country in their young manhood called for men of valor. If I had neglected to furnish your committee with the most notable achievements of the service of which these young men were a large part, I could never have looked them in the face again. We were, and I say it with a sense of pride, in spirit and labor, comrades and shipmates in the world's greatest naval adventure. They have had no opportunity to tell the story of how they faced the hardships with good cheer, and peril unafraid. I rejoice for them that the Navy's record stands honorable, high, unimpeached, and unimpeachable.

Mr. Chairman and gentlemen, I have performed my sacred duty to the courageous young lads who lost their lives and gained immortality in the naval service. Yesterday I attended a memorial service in Brooklyn in honor of the dead heroes whose bodies were the first to be brought home to find sepulchre in the land that furnished them nourishment in their boyhood and for whose honor they gave all they were and all they hoped to be. They and the scores of other naval heroes—sailors, marines, aviators—who died across the sea, either in battle, or in ascent, or from disease, died with the assurance that the service which commanded their very life was appreciated and honored at home. If I had been silent when what these dead had done were assailed, I could not ever have stood with bared head over their graves without a sense that I had failed them and permitted unjust reflections to tarnish their fame.

I have performed my duty to the responsible officers of the Navy, who, charged with duties calling for initiative, ability, and resource-

fulness under great stress, more than measured up to the high expectations of the American people. As the Navy was prompt when war was declared and as it expanded and multiplied its activities as the call became greater and more insistent, the people of America felt, and justly so, that they could depend upon the Navy doing everything that foresight, courage, skill, and daring could accomplish. When victory came, the officers of the Navy held, and deservedly, a place in the grateful admiration of the American people higher than in any period of our history. They had won popular confidence by a great task greatly performed. This was true alike of the Chief of Operations and the commander in chief of the fleet and of the youngest lieutenant and ensign, for nowhere was there wanting readiness, determination, and the qualities which insured victory. I tested the mettle of these officers, Regular and Reserve. I know the stuff of which they were made. I saw them under stress. I followed them in their long vigils afloat and in their labors abroad and ashore. Their brains and devotion and leadership were the dependence of their country and they failed nowhere at any time.

If, when unjust accusations touching any of them had been broadcasted, I had not taken the time to record in these hearings the splendid performance of naval officers and naval personnel, I would have failed in a plain duty to officers whose contribution is beyond all praise and I would have been recreant to a duty that has been an honor. Some of these officers called before your committee have disproved every criticism, but few of them could be heard. As I am for the time being head of the Navy, it has been a pleasure and a privilege to point out to this committee some of the notable deeds of our naval officers, who, working with consideration, made a record so excellent that no criticisms or accusations have been able to leave a stain or even a speck upon that record.

Finally, I have performed my responsible and happy duty to the American people and to the nations with which we were associated in the World War by presenting with some degree of particularity the naval effort in the great struggle. The Navy was their reliance when world justice was imperiled. They knew that it was ready, fit, efficient, and the history I have been privileged to present your committee fully justifies their faith. Indeed, it crowns it.

During the World War the conduct of the Navy was under the calcium light, and a thorough examination of its preparation, readiness, and wise operation was made by a committee of the House of Representatives composed of members of both political parties. Concluding their elaborate and searching report into all naval activities with commendation the committee used these words: "Sirs, all is well with the fleet."

When the evidence presented before this committee is fairly appraised, the American people (using the word "fleet" as the House committee used it, to embrace the whole Navy) will declare with just American pride and satisfaction, "Sirs, when the testing time of war came, all was well with the American Navy."

I thank you, gentlemen.

The CHAIRMAN. The committee will stand adjourned until 10 o'clock to-morrow morning.

(Thereupon, at 3 o'clock p. m., the subcommittee adjourned until to-morrow, Friday, May 21, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

FRIDAY, MAY 21, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235 Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present, Senators Hale (chairman), Ball, Keyes, and Pittman.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. The committee will come to order. Mr. Secretary, this investigation is being held, as you know, to investigate certain criticisms made by Admiral Sims in his letter to you of January 7, 1920. In this letter he has made criticisms about the lack of preparedness of the country—the lack of preparedness of the Navy Department—

Secretary DANIELS. What did he say about that, Mr. Chairman?

The CHAIRMAN (continuing). Before the war.

Secretary DANIELS. I would like you to read into the record exactly what he said about it.

The CHAIRMAN. I will read his charges later on; and also about the conduct of the first six months of the war.

This committee is not in any way, as I have repeatedly said, interested in personal differences between officers of the Navy or between officers of the Navy and officials of the Navy Department. What we want to do, and what we hope to do, is to investigate the criticisms, and if mistakes have been made to make some plans for the future which will keep us out of future wars and which will enable us, if we do get into future wars, to meet them with perfect preparedness. We are not interested in any personal differences. We view with regret some of the personal antagonisms that have come out in the testimony of some of the witnesses. We do not believe that such antagonisms should have anything to do with the investigation. If any charges have been made—in my opinion personally, and I think in my opinion of a number of members of the committee—the charges have not been made in any way against the Navy itself, but against those who were ultimately responsible for the policies of the Navy.

Now I will read—

Secretary DANIELS. Mr. Chairman, one second. You stated in your preliminary remarks that this committee was investigating the charges of Admiral Sims.

The CHAIRMAN. The criticisms of Admiral Sims.

Secretary DANIELS. The criticisms of Admiral Sims, in which he referred particularly and specifically to the first six months of the conduct of the war. Will you please read from his original criticism whether he said anything about the first six months of the war? I would like to know his exact words and his original charge about that.

The CHAIRMAN. I will put in the record the summary made in paragraph 78 of Admiral Sims's letter, which covers these matters.

Secretary DANIELS. Did he use the term "six months," or any period?

The CHAIRMAN. I will read what he says. [Reading:]

78. The above brief account of the manner in which our naval operations were conducted clearly shows that the following grave errors were committed in violation of fundamental principles; and it is manifestly desirable that such violations should be avoided in future:

"(1) Although war with Germany had been imminent for many months prior to its declaration, there were nevertheless no mature plans developed or naval policy adopted in preparation for war in so far as its commander in Europe was informed.

"(2) The Navy Department did not announce a policy three months after war was declared—at least, not to its representatives and the commander of its forces in Europe.

"(3) The Navy Department did not enter whole-heartedly"—

Secretary DANIELS. I see, Mr. Chairman, that he does not mention six months. That is the only question. I remember his charges. He does not mention six months.

The CHAIRMAN. I will read the whole of this:

"(3) The Navy Department did not enter whole-heartedly into the campaign for many months after we declared war, thus putting a great strain upon the morale of the fighting forces in the war area by decreasing their confidence in their leaders.

"(4) The outbreak of hostilities found many important naval units widely dispersed and in need of repairs before they could be sent to the critical area.

"Destroyers arriving in the war zone had been cruising extensively off our seaboard and in the Caribbean, and when war was declared were rushed through a brief and inadequate preparation for distant service.

"(5) During the most critical months of the enemy submarine campaign against the allied lines of communication the department violated the fundamental strategical principle of concentration of maximum force in the critical area of the conflict.

"(6) The department's representative with the allied admiralities was not supported during the most critical months of the war either by the adequate personnel or by the adequate forces that could have been supplied.

"(7) The department's commander in the critical area of hostilities was never allowed to select his principal subordinates and was not even consulted as to their assignment. A fundamental principle of the art of command is here involved.

"(8) The Navy Department made and acted upon decisions concerning operations that were being conducted 3,000 miles away, when the conditions were such that full information could not have been in its possession, thus violating an essential precept of warfare that sound decisions necessarily depend upon complete information.

"(9) Instead of relying upon the judgment of those who had had actual war experience in this peculiar warfare the Navy Department, though lacking not only this experience but also lacking adequate information concerning it, insisted upon a number of plans that could not be carried out.

"(10) Many of the department's actions so strongly implied a conviction that it was the most competent to make decisions concerning operations in the war zone that the result was an impression that it lacked confidence in the judgment of its representative on the council of the Allies and its responsible commander in the 'field.'

"It is a fundamental principle that every action on the part of superior authorities should indicate confidence in subordinates. If such confidence is lacking, it should immediately be restored by ruthlessly changing the subordinate.

"(11) 'To interfere with the commander in the field or afloat is one of the most common temptations to the Government, and is generally disastrous.' (The Influence of Sea Power upon History. Mahan.)

"The Navy Department did not resist this temptation, and its frequent violation of this principle was the most dangerous error committed during the naval war."

The committee, as I say, takes the ground that these criticisms are made not of the Navy, but of the men in the Navy who had the ultimate responsibility about fixing the policies of the department. I think I can speak for every member of the committee when I say that we believe that the Navy itself throughout the war did magnificent service, and there is no reflection intended in any way on them, so far as the committee understands it, and there is no reflection on the Navy in the letter of Admiral Sims, as we understand it.

In your testimony yesterday, several times during your testimony, you spoke about the letter of Admiral Sims, and have taken the stand that it should not have been brought out. This letter was brought out at the hearing. I think on January 17, at the request of the chairman of the committee.

As to the propriety and intent of the letter I will quote from the testimony of Capt. Pratt, on page 3952 of the record:

The CHAIRMAN. Now, I want to take up the question of the sending of the letter by Admiral Sims. This letter was an official communication, was it not, from the Admiral to the Secretary of the Navy?

Capt. PRATT. You mean the letter——

The CHAIRMAN. The letter of January 7, 1920.

Capt. PRATT. I suppose it was.

The CHAIRMAN. I think there is no question about that.

Capt. PRATT. I think there is no question about it.

The CHAIRMAN. And it was brought out at the request of the subcommittee on naval awards.

Capt. PRATT. I believe that is true.

The CHAIRMAN. And was not made public by Admiral Sims, except at the request of the subcommittee?

Capt. PRATT. I understand that is so.

The CHAIRMAN. There is no criticism in the letter, so far as you know, of the Navy itself or any officer of the Navy?

Capt. PRATT. I have read it carefully, and I do not see any criticism.

The CHAIRMAN. But he does point out the magnificent achievements of the Navy during the war?

Capt. PRATT. Yes. I will correct that by saying no person by name; but of course there is a criticism of certain operations of the war which naturally reflect upon the officer in charge of operations; but no personal mention of anyone by name.

The CHAIRMAN. And he speaks specifically about the fine work that was done by the Navy after the department had organized and things were running along properly?

Capt. PRATT. Oh, yes; he speaks of that.

The CHAIRMAN. And what he finds fault with principally is with the faulty principle of organization in the Navy, the lack of preparation, the indecision and procrastination by the department which prevented officers from quickly using ships, men, and material against the enemy? I am simply asking you to see whether this is your idea of the letter?

Capt. PRATT. Yes; that is my idea.

The CHAIRMAN. And he did not indulge in personalities, as you say?

Capt. PRATT. No, sir; he did not.

The CHAIRMAN. And was not the purpose of the letter to insure a greater national security by preventing a future repetition of the errors and delays of 1916?

Capt. PRATT. I have always accepted that myself as being the reason of the letter.

The CHAIRMAN. Do you not think that the admiral had the right to address such a letter to the Secretary of the Navy?

Capt. PRATT. I think he had a perfect right to address it to the Secretary of the Navy.

The CHAIRMAN. Is the Navy Department the Navy?

Capt. PRATT. No, sir; the Navy Department is the controlling head of the Navy.

The CHAIRMAN. Do you think it is possible to criticize the department without criticizing the Navy?

Capt. PRATT. Oh, yes.

The CHAIRMAN. Might not the Navy Department or the Secretary of the Navy who rules the policies of the department, prevent preparedness and prevent quick action in time of war, if he saw fit to do so?

Capt. PRATT. I think, under the present system, it would be possible.

The CHAIRMAN. Might not a criticism of the Navy Department and its policies be a defense of the Navy, and the defense of its officers, against the possible charge of neglect on their part to prepare and act promptly?

Capt. PRATT. I suppose it could be looked at in that way.

The CHAIRMAN. Then, where can you find any justification in the charge that has been made by certain of the witnesses who have come before us, that Admiral Sims had attacked the good name of the Navy or reflected upon its officers, when he merely points out the defects and errors of organization and administration of the Navy Department?

Capt. PRATT. Of course, this is my opinion only.

The CHAIRMAN. Yes; that is what I want.

Capt. PRATT. I feel that had he omitted that accusation which I pointed out as a grave one that the Navy was responsible for the loss of so many ships and so many lives there would not have been so much feeling aroused in the service. I can not help feeling that that was a loose statement.

The CHAIRMAN. If he had said "the Navy Department," would that have changed that, in your opinion?

Capt. PRATT. No, sir; because, after all, we can not draw a line between the Navy Department and the rest of the Navy. We want to be one big service and we want to work thoroughly as a band of brothers; so that if you are going to draw a line of demarkation between the Navy Department and the Navy proper, there will always be lack of harmony.

The CHAIRMAN. But might the Navy not be itself all on tenterhooks, ready to do anything that they could, and the department hold them back?

Capt. PRATT. Of course, that is true.

The CHAIRMAN. In which case the men of the Navy who were ready would not be to blame, but the department, who controlled its policy and held them back, would be responsible?

Capt. PRATT. Yes; if the department held them back that state of affairs would be true, naturally.

The CHAIRMAN. And you yourselves have condemned the department's organization as it was at the beginning of the war.

Capt. PRATT. Yes; I do not think it is a good one.

You have heard Capt. Pratt's testimony, Mr. Secretary. What have you to say as to that?

Secretary DANIELS. I think Capt. Pratt spoke words of wisdom when he said, "You can not draw a line between the Navy Department and the Navy." I do not think wiser words were ever spoken. You never can have any great service in the Navy, or in the Army, or civilian, unless the directing power of that service is in harmony with the service. As Capt. Pratt says, you can not make a criticism of the Navy Department without making a criticism of the Navy. Will you let me see that testimony, Mr. Chairman?

The CHAIRMAN. Yes; but I shall want it.

Secretary DANIELS. You say, Mr. Chairman, that this criticism of Admiral Sims was impersonal, that it brought in no personalities and attacked no individual. That is not the opinion that the people put upon that letter. That is not the statement that Admiral Sims made when he came before your committee. That letter, as Admiral McCain said, and I think with force—Admiral Sims's letter was like something thrown at the Secretary that missed him and hit the whole operating department of the Navy.

Now, I have gone very fully into the testimony about that letter of Admiral Sims.

Under the regulations of the Navy Department every naval officer is not only authorized but invited to make any suggestions through Navy channels for anything that he thinks can improve the Navy service, its operations, its organizations, its matériel; and in so far as Admiral Sims's letter dealt with that he was entirely within his rights, and not only within his rights but within his duty; but the same regulations which call for that require two things: First that in his reflections upon what has been done he shall propose a better plan. Up to this hour Admiral Sims has proposed nothing that would improve those conditions which he criticizes.

It is a well-known tradition and policy of the Navy that in writing such letters no officer shall reflect upon other officers. Now, Mr. Chairman, if ever any letter was written that contained a grave and serious and outrageous reflection upon officers, it was the reflection which Admiral Sims made upon the Chief of Operations in that letter. The substance of that charge, as he expanded it in his hearing before your committee, was that Admiral Benson had what he called idiosyncracies, that he was anti-British, and he used the exact words before your committee that Admiral Benson lacked the will to win.

Admiral Sims's charge in that letter is that the Chief of Operations—and as the Chief of Operations was assisted and supported by able officers in operation, who together made the plans which he objected to—that they lacked the will to win.

The CHAIRMAN. I think he never included anybody else at all in such an accusation.

Secretary DANIELS. What is that?

The CHAIRMAN. I think he never included any of the officers who worked in operations.

Secretary DANIELS. Whom did he mean?

The CHAIRMAN. I think he meant the men who had the ultimate responsibility for the Navy.

Secretary DANIELS. Whom did he mean?

The CHAIRMAN. I should say indirectly the Chief of Operations and directly the Secretary of the Navy.

Secretary DANIELS. Then you say that he had no personalities?

The CHAIRMAN. No personalities.

Secretary DANIELS. And he made no charges?

The CHAIRMAN. He made criticisms.

Secretary DANIELS. And he made no criticisms—

The CHAIRMAN. I say he made criticisms.

Secretary DANIELS. And he made criticisms of what?

The CHAIRMAN. He made criticisms of certain things that were done and made them to the head of the Navy.

Secretary DANIELS. Mr. Chairman, he made the criticism that because of the remarks that Admiral Benson was alleged to have made to him, a statement which he afterward said he had forgotten until it was called to his attention by his secretary—he made the grave and infamous charge that Admiral Benson lacked the will to win.

Now, I say to you, there is no charge so grave as to declare that an officer of the American Navy, charged with the responsibility for directing the operations of ships in war, lacked the will to win.

The CHAIRMAN. If he did lack the will to win, that should certainly be brought out, should it not?

Secretary DANIELS. Absolutely; and he has come here and told you that Admiral Benson lacked the will to win. I say it is a charge——

The CHAIRMAN. Will you please quote from his letter that statement about the will to win?

Secretary DANIELS. I can quote Admiral Sims's testimony in which he said that Admiral Benson lacked the will to win. I will quote his exact words.

The CHAIRMAN. I want it for my information.

Secretary DANIELS. He says that that was the reason he incorporated that in the letter, or words to that effect. But let me quote the exact words. I wish to quote him exactly as he said it. I have not Admiral Sims's testimony, Mr. Chairman.

The CHAIRMAN. I have the letter here. You say it was in his letter——

Secretary DANIELS. It was in his cross-examination.

The CHAIRMAN. Oh, it was not in the letter?

Secretary DANIELS. I said in his examination. I said the charge of what Admiral Benson is alleged to have said to him was in his letter, but in his cross-examination he said that he lacked the will to win.

The CHAIRMAN. That is unquestioned. It was brought out in his cross-examination.

Secretary DANIELS. Does it make any difference whether a man charges another man with a lack of will to win, in a letter or in a cross-examination?

The CHAIRMAN. Why, in a cross-examination he is obliged to answer questions.

Secretary DANIELS. It is as grave a crime in one place as in the other.

The CHAIRMAN. Mr. Secretary, he is obliged to answer any questions asked him, or to bring out any information he has. He is on oath to do so.

Secretary DANIELS. Then did he swear that Admiral Benson lacked the will to win?

The CHAIRMAN. I should like to see the place in the testimony.

Secretary DANIELS. Your secretary can find it. It is in his cross-examination.

The CHAIRMAN. If he had that opinion, of course he should have brought it out if necessary in the testimony.

Secretary DANIELS. Mr. Chairman, if he had that opinion when war was declared, what he ought to have done was to have written a letter to the Secretary of the Navy or the President of the United States, and he ought to have said, "When I left America the officer

charged by law with the responsibility of operating the fleet in war lacked the will to win. We can not carry on this war with such an officer "——

The CHAIRMAN. Might he not——

Secretary DANIELS. Let me finish; please, sir. Instead of that, nobody in the world ever heard that Admiral Sims had such an opinion until this letter came out.

The CHAIRMAN. But the letter does not say that he had that opinion.

Secretary DANIELS. But the letter charges that Admiral Benson made this statement, which in his cross-examination Admiral Sims tells your committee that he did it because it showed a lack of will to win.

The CHAIRMAN. But Admiral Benson never denied that he said the things quoted in that letter, did he?

Secretary DANIELS. Read Admiral Benson's testimony.

The CHAIRMAN. Yes, and he never denied it.

Secretary DANIELS. Admiral Benson denied indignantly——

The CHAIRMAN. Did he deny that he made the statement?

Secretary DANIELS. Admiral Benson denied indignantly any suggestion by anybody anywhere, at any time, that he lacked the will to win.

The CHAIRMAN. That is not the question, Mr. Secretary. The question is the charge that was made in the letter, and Admiral Benson denied that charge.

Secretary DANIELS. You are trying to confine this to the letter. This investigation begins with the letter and ends with this minute. I am speaking of Admiral Sims's testimony on cross-examination.

The CHAIRMAN. But, Mr. Secretary, I have quoted to you certain testimony of Capt. Pratt about the letter. I am asking you now about this letter, not about what came out on cross-examination.

Secretary DANIELS. Well, but I am telling you that the letter——

The CHAIRMAN. And I want the circumstances about the letter.

Secretary DANIELS. The letter and the interpretation of the letter go together, absolutely.

The CHAIRMAN. But you can not interpret anything into that letter that is not there. Now, the statement in the letter was never denied by Admiral Benson.

Secretary DANIELS. I do not wish to quote Admiral Benson, but you will find that in his testimony Admiral Benson virtually said that if he made any such statement, that if anybody had said he made it, he would not deny it, but that if he made it at all he made it to a brother officer, cautioning him at the time not to be proanything, but to be all American. Now, we will come to the letter.

The CHAIRMAN. Wait one second, Mr. Secretary. I never made any such statement as that made by Admiral Benson, and if anybody should ask me if I ever made such a statement, I would not be afraid to go on oath in saying that I never had made such a statement, no matter who said that I had. You suggest——

Secretary DANIELS. I was going on, Mr. Chairman, if you please.

The CHAIRMAN. Very well.

Secretary DANIELS. You raised the question about the publication of the letter. As I was saying, Admiral Sims had a right to send

to the Navy Department any statement or suggestion, accompanied by recommendations for improvement, but he had no right to reflect upon an officer.

When that letter came to the Navy Department it was handed to me directly. I read the first page or page and a half, and when I came down to the statement in which he alleges that Admiral Benson made this remark, a visitor was announced who had an appointment with me. I put the letter in my desk and locked it up. No individual except myself ever saw that letter until the Washington Post, two or three days later, printed not the words of the letter, but made a statement which showed that somebody had given out, not the text but the gist of the letter.

That letter was referred by me to the General Board, with all letters bearing upon the regulations which authorizes officers to make suggestions.

The CHAIRMAN. When?

Secretary DANIELS. I have forgotten the date.

The CHAIRMAN. Before—

Secretary DANIELS. I do not remember the date.

The CHAIRMAN. Before the matter was brought out here at the hearing?

Secretary DANIELS. I do not remember the date, but I can find it. The General Board has the date. And that letter had never been seen until this publication.

Now, of course when Admiral Sims came before your committee on medal awards, after discussing that at very great length, the chairman of this committee asked him the question, "Have you another letter, Admiral Sims, bearing on this question?" He had not, and if he had obeyed the traditions of the Navy and its regulations, he would have said to you, "Mr. Chairman, I have written a letter to the Secretary of the Navy bearing upon an entirely different matter in no way connected with medals or awards, and under the regulations that letter will receive attention through the ordinary methods of naval study of suggestions. Instead of that, with a theatrical show he laid it down; and if he had been looking a week, or a month, or a year for an ostentatious way of publishing the letter he could not have found a better one; and that is the history of the publication of the letter.

The CHAIRMAN. Mr. Secretary, previous to the reading of that letter before the committee had you ever spoken about it to anyone that such a letter had arrived?

Secretary DANIELS. Previous—

The CHAIRMAN. Previous to January 17, when this letter—

Secretary DANIELS. Mr. Chairman, I had done this: When the Washington Post had this headline about the letter on that morning, the newspaper correspondents who come in every morning at 10.30 to see me, asked me if I had received a letter from Admiral Sims. I said that I had. They asked me for the letter. I declined to discuss it or to give it to them.

The CHAIRMAN. And you made some statement about the letter, did you not?

Secretary DANIELS. Yes; I made some statement about it.

The CHAIRMAN. And that was before the committee met?

Secretary DANIELS. But I never made any statement about what the contents of the letter were.

The CHAIRMAN. But that was before the committee took the matter up, was it not?

Secretary DANIELS. Certainly it was: yes.

The CHAIRMAN. And therefore something having gotten out that there was such a letter—

Secretary DANIELS. No; I would like to change a word, Mr. Chairman—not something having gotten out, but something having been given out by somebody—that makes a very great difference.

The CHAIRMAN. Can you say where it was given out and how?

Secretary DANIELS. I have not the evidence.

The CHAIRMAN. I do not think it is a matter of the least importance, because I can tell you now that if the committee had known that there was such a letter, in my opinion it would have been the duty of the committee to ask for it, and that is exactly what happened. The committee were not familiar with the contents of the letter.

Secretary DANIELS. Mr. Chairman, it might have been the duty of the Senate or the Congress or the Naval Affairs Committee, but it could not have been the duty of a committee charged specifically with investigating medal awards.

The CHAIRMAN. If I recall the matter correctly, I asked Admiral Sims, when the matter of the letter came out, whether he had another letter, and whether it referred to the question of awards or to matters touching the morale of the Navy, I think it was.

Secretary DANIELS. I have your words here, Mr. Chairman.

The CHAIRMAN. Very well.

Secretary DANIELS. I read from page 4802 of the typewritten record:

The CHAIRMAN. Admiral Sims, I think, in connection with this matter—

That is the matter of the awards—

if you have had any further correspondence with the Secretary of the Navy about the question of awards and their effect on the morale of the service, it would be well for you to give that correspondence to us at the present time.

You see, you limited it to the question of awards.

Admiral SIMS. It does not bear particularly upon the question of the awards, but it does bear upon the question of the morale of the service.

The CHAIRMAN. As it does.

Secretary DANIELS. I read the resolution of the Senate Naval Affairs Committee authorizing this committee to act, and I found nowhere in it any delegation of power to this committee except on the question of awards. I find no delegation of powers to discuss the morale of the Navy. It raised no question about that. You went on to say—I quote from the record—

The CHAIRMAN. Then I think it is decidedly germane to this issue.

And then Admiral Sims produced the letter.

The CHAIRMAN. Of course, he had to produce the letter. Then I understand you to find fault with me as chairman of the committee for asking for the letter?

Secretary DANIELS. Mr. Chairman, I am not finding fault with anybody. You brought up the question about its publication, and I

answered your question. I am not criticizing anybody. I am stating facts.

The CHAIRMAN. But clearly Admiral Sims could not have helped producing the letter when I ordered him to do it.

Secretary DANIELS. You asked him if he had a letter referring to medal awards.

The CHAIRMAN. Yes; and he replied that it did not refer directly to medal awards, but that it did refer to the morale of the Navy. Then I may have gone beyond my powers in asking him to produce it, but he certainly had to produce it.

Secretary DANIELS. It is not a matter of importance——

The CHAIRMAN. I do not think it is a matter of great importance——

Secretary DANIELS. Except to get the facts clearly before the public—the facts as to how it came out—that is all. As far as I am concerned I am very happy that it came out. I am very happy that the country has been enabled to have a complete and full and conclusive answer to all the unsubstantiated charges.

The CHAIRMAN. The question whether the charges are substantiated or not does not lie with any witness.

Secretary DANIELS. It lies with everybody as a matter of individual opinion.

The CHAIRMAN. The committee will decide in their own minds about the question of substantiation.

Secretary DANIELS. I was stating my opinion, which is entitled to just as much consideration as that of anybody else, and no more.

The CHAIRMAN. Certainly the committee will give it and the testimony of all the witnesses every consideration, as I think they should. Now, I do not think you have any question about the powers of the committee at the present time under the further authority given it?

Secretary DANIELS. Oh, I am raising no question at all about that, Mr. Chairman. I was merely stating the history of it, but raising no question about power.

The CHAIRMAN. Senator Keyes thinks you do not understand clearly the different powers which the committee now has.

Secretary DANIELS. I do understand it thoroughly——

The CHAIRMAN. Different from what it had at the beginning, as to the question of awards.

Secretary DANIELS. I was speaking entirely of the powers of the committee at the time the letter was produced. After that your committee went before the full Naval Affairs Committee and as I understand it were given larger powers.

Senator KEYES. Was the letter produced at the medal hearings or at this hearing?

The CHAIRMAN. Produced at the medal hearing.

Senator KEYES. It was produced at the medal hearing?

Secretary DANIELS. I raise no question of the power of the committee, of course. I have only been giving the history as it took place.

The CHAIRMAN. You feel, Mr. Secretary, that Admiral Sims was entirely justified in writing the letter of January 17 to you, do you not?

Secretary DANIELS. Under the regulations any naval officer is not only permitted but invited to write a letter, without personalities,

without reflection on other officers, suggesting any improvement that he thinks can be made in naval conduct; and he is also told in the same regulation that he should not do this unless he proposes plans for improvement. That is the substance of the regulation.

The CHAIRMAN. Mr. Secretary, if in his criticism the admiral states that the Navy Department did not announce a policy until three months after war was declared, would not that suggest inferentially that they should have done it earlier than three months after war was declared?

Secretary DANIELS. If he stated that, he stated what is not correct.

The CHAIRMAN. I know, but you are accusing him of not offering anything constructive. Now, I say that that very charge implies a constructive criticism.

Secretary DANIELS. I say his statement was made in ignorance of what the Navy Department had done.

The CHAIRMAN. Yes; but that has nothing to do with the case.

Secretary DANIELS. It has everything to do with the case.

The CHAIRMAN. He might make a mistake, of course; but at least he is suggesting something constructive.

Secretary DANIELS. He had the right——

The CHAIRMAN (interposing). He had the right to criticize and was entitled to make suggestions.

Secretary DANIELS. He had a right to make any constructive suggestion that he thought would improve. So has every other officer. But if he made a statement that the Navy Department had no policy or had announced no policy or put in effect no policy, or intimated any such thing, for three months after the war, he showed that he was woefully ignorant.

The CHAIRMAN. But even so, it is a constructive statement, is it not? It implies, if they did not do it in that time, that they should have done it earlier than they did. That is constructive, is it not?

Secretary DANIELS. If he had said, "In my judgment, the Navy Department ought every day, or every week, or every month, to write out in full the policy that it is going to pursue in the future," that would have been a constructive suggestion. But to have said that the war went on three months before the Navy Department had any policy, or to have intimated that, showed his ignorance of what the department was doing.

The CHAIRMAN. But even if he showed his ignorance it shows that he found fault with their waiting those three months, and it is constructive criticism to suggest that in the future they do not delay three months?

Secretary DANIELS. But they did not wait three months, and his facts are all wrong.

The CHAIRMAN. But that has nothing to do with that being a constructive suggestion.

Secretary DANIELS. It is the duty of a naval officer in making suggestions not to reflect upon the department, but to inform himself of what they are doing.

The CHAIRMAN. But I do not see how he can give the facts without reflecting on some one, if a mistake has been made.

Secretary DANIELS. But a mistake had not been made, and therefore he had no right to say it.

The CHAIRMAN. But that is a matter, Mr. Secretary, that we are going to determine in this committee.

Secretary DANIELS. That is a matter which Capt. Pratt and Admiral Benson and Admiral McKean and Admiral Badger testified about.

The CHAIRMAN. But others have testified in a different way. It may be that we will find that there was a mistake. It may be we will find that there was not. I simply use that as one illustration. Now, here is another illustration. Admiral Sims says:

Although war with Germany had been imminent for many months prior to its declaration, there were nevertheless no mature plans developed or naval policy adopted in preparation for war in so far as its commander in Europe was informed.

That certainly is a constructive criticism, that in the future the commander should be informed.

Secretary DANIELS. Well, as a matter of fact he was——

The CHAIRMAN. We are not going into the merits of this at this time.

Secretary DANIELS. Well, Mr. Chairman, I am not going to answer yes or no. I am going to give you the facts. Admiral Sims had a right to propose plans and suggestions and improvements; but he had no right to reflect upon brother officers. That statement reflects upon the General Board of the Navy; it reflects upon Admiral Benson and Capt. Pratt, and every man charged with those responsibilities. It had plans; it carried out plans; it carried them out successfully.

The CHAIRMAN. But you are not in any way denying that he was proposing something that should be considered constructive in his letter?

Secretary DANIELS. It was not constructive at all, because it was taking a man of straw and knocking him down.

The CHAIRMAN. That might be, but that is not what we are settling now; at least, it was an attempt to do something constructive. It was an attempt, was it not?

Secretary DANIELS. I think it was an attempt to be destructive, and to reflect upon his brother officers.

The CHAIRMAN. I said constructive.

Secretary DANIELS. But I said destructive.

The CHAIRMAN. You have not answered my question.

Secretary DANIELS. I say it was not constructive; it was destructive, based upon a false premise.

The CHAIRMAN. You do not see the point, that when he makes these points about things that were done wrong, there is a suggestion that in the future they be not done in that way?

Secretary DANIELS. But you put your question on the ground that they were done wrong. I deny that, and I deny it upon the evidence of every responsible officer who has been before your committee.

The CHAIRMAN. That is not the point, of course, Mr. Secretary. If he thought they had been done wrong, it was his duty to bring it before the department?

Secretary DANIELS. If he thought he had a plan; but it was his duty to state the facts.

The CHAIRMAN. Mr. Secretary, if I state that nothing has been done in three months, the point I suggest is that they should be done

before three months; and that is implied; and it is certainly very clear in the charge.

Secretary DANIELS. But if you state that when it is not true, you do not come within the regulations of the Navy.

The CHAIRMAN. That has nothing to do with it, if that is in my mind, when I make the statement.

Secretary DANIELS. It has everything to do with the statement.

The CHAIRMAN. I fail to follow you, Mr. Secretary.

Secretary DANIELS. I am very sorry. It is very clear to me.

The CHAIRMAN. Now, any criticism of anything in the Navy would be a criticism of some officer or of the department, would it not?

Secretary DANIELS. How is that—any criticism?

The CHAIRMAN. Any criticism of anything done in the Navy must be a criticism of an officer or of the department itself?

Secretary DANIELS. Any criticism made ought to be made of the person responsible.

The CHAIRMAN. Ought to be made of what?

Secretary DANIELS. Of the person responsible for what is alleged to have been wrong.

The CHAIRMAN. I do not understand exactly what you mean by that. Do you mean he should specify a man by name?

Secretary DANIELS. He should specify the man, the bureau, the person, that he thinks has made the mistake.

The CHAIRMAN. But in this case, he particularly criticizes the policies of the department; and do you not think that is very clear?

Secretary DANIELS. He particularly criticizes what are not the policies of the department.

The CHAIRMAN. What he alleges are the policies of the department.

Secretary DANIELS. Yes; what he alleges.

The CHAIRMAN. Is not that specific enough, that those who are ultimately responsible would be the ones criticized?

Secretary DANIELS. Of course, those ultimately responsible for the policies of the department must bear the responsibility—

The CHAIRMAN. And the—

Secretary DANIELS. Let me finish.

The CHAIRMAN. Yes.

Secretary DANIELS (continuing). Those who are responsible ultimately for the policies must bear all responsibility and receive all the rewards. They go together.

The CHAIRMAN. You would not say that the Navy Department was the Navy, would you?

Secretary DANIELS. I would say what Capt. Pratt said, that you can not separate them. I will say that I would say what Capt. Pratt said. Let us see what he said. Here is his language:

Because, after all, we can not draw a line between the Navy Department and the rest of the Navy.

I think that Capt. Pratt was absolutely right in that statement.

The CHAIRMAN. In which statement, the one you have just read?

Secretary DANIELS. Yes.

The CHAIRMAN. Now, I will read you his former statement. I asked him:

Is the Navy Department the Navy?

Capt. Pratt said:

No, sir; the Navy Department is the controlling head of the Navy.

The CHAIRMAN. Do you think it is possible to criticize the department without criticizing the Navy?

Capt. PRATT. Oh, yes.

Secretary DANIELS. Well, if you would ask me if the battleship *Wyoming* was the Navy, I would say no; but I would say that it was a very important part of it; and if you whack the *Wyoming*, you hit the Navy. All parts of the Navy go to make the Navy.

The CHAIRMAN. Then you think there is no way of criticizing the Secretary of the Navy without insulting the rest of the Navy?

Secretary DANIELS. Not at all, Mr. Chairman.

The CHAIRMAN (continuing). Or without criticizing the rest of the Navy; is that so?

Secretary DANIELS. Not at all; but I think this, that no organization can function well unless that organization at the head functions well.

The CHAIRMAN. Do you not think that if the organization at the head has made mistakes, it is a pretty good idea to bring those mistakes out?

Secretary DANIELS. Absolutely.

The CHAIRMAN. And in doing so you are not affecting the rest of the Navy, are you?

Secretary DANIELS. All my regulations—the regulations of the Navy authorize and invite criticism.

The CHAIRMAN. But do you think that is attacking the rest of the Navy, when you are criticized?

Secretary DANIELS. I think Admiral Sims' letter was a very severe and very serious attack, first upon Operations, and then upon the Navy.

The CHAIRMAN. Upon the Navy?

Secretary DANIELS. Upon the Navy.

The CHAIRMAN. You do not think it reflected upon you, at all?

Secretary DANIELS. In so far as I am a part of the Navy, certainly.

The CHAIRMAN. But not any more than anybody else in the Navy?

Secretary DANIELS. His letter, if you will read it, reflected on one thing, the operation of the Navy?

The CHAIRMAN. And the policies of the Navy?

Secretary DANIELS. And Operations assigns ships, and it has the operation; and Operations is so integral a part of the Navy, if you tear down Operations you attack the whole Navy.

The CHAIRMAN. You say that he is reflecting only upon Operations. Do you not think he said anything about the plans.

Secretary DANIELS. As I said just now, he has reflected upon the General Board of the Navy, who made plans, elaborate, full, year after year, month after month.

The CHAIRMAN. But do you not think you were obviously responsible in the case of a number of these plans, and in the case of a number of operations that were followed out or that were not followed out?

Secretary DANIELS. The Secretary of the Navy is responsible for the conduct of the Navy, ultimately. Under the law Congress passed

in 1915, certain responsible duties were assigned to the Office of Operations.

The CHAIRMAN. And certain responsible duties were not assigned to the office of Operations?

Secretary DANIELS. And the larger responsibilities——

The CHAIRMAN. I will take that up later.

Secretary DANIELS. The final say rests with the Secretary of the Navy, and the say above that rests with the Commander in Chief of the Army and Navy.

The CHAIRMAN. So that, in regard to any of these criticisms of Admiral Sims, unless you can show that certain officers in Operations or in other departments of the Navy were directly responsible, where they deal with policies or plans or matters that come under your jurisdiction, would you not say that you yourself were responsible?

Secretary DANIELS. The Congress of the United States has given very ample and very large and very full instructions as to the responsibilities of various officers. For example, the moneys appropriated for certain bureaus are expended under the direction of those bureaus. The Congress of the United States undertook to place the operations of the fleet under the Office of Operations, and that, of course——

The CHAIRMAN. Under the Secretary?

Secretary DANIELS. And that, of course, is under the Secretary of the Navy, as it should be; but as a matter of fact the Chief of Operations and the office of Operations from the beginning of the war, and before the war, had the direct responsibility and charge of the operations and allotments of the ships that served in the American Navy; and the signing of an order for any ship to go anywhere, by the Chief of Operations, had the full force and effect—I am quoting the law—as if it had been signed by the Secretary of the Navy.

The CHAIRMAN. But, Mr. Secretary, in the case of the charges of the specific matters referred to by Admiral Sims——

Secretary DANIELS. What specific charges?

The CHAIRMAN. As to convoys; as to personnel sent over for his staff; as to destroyers being sent over; as to tugs being sent over; as to the North Sea mine barrage; as to the sending over of the battle-ships, and other things. Did you not yourself have something to do with the matter in each case, and something to do with the decision about whether these very ships were to be sent over?

Secretary DANIELS. I will answer that very fully. You first spoke of the convoys. In my direct testimony I have given you a very full account of the convoy.

The CHAIRMAN. Well, Mr. Secretary, I want to take up these questions in detail later on, under the conduct of the war. I want to simply get the policy question settled now.

Secretary DANIELS. On these I shall illustrate the policy by the action. In the matter of the convoy, the policy of the Government in that matter was left to Operations. I had the power to have directed Operations to pursue a certain policy. My attitude toward the convoy is very well known. I always believed it ought to be employed; but the British Navy for three years took the opposite position, and after Admiral Sims reached Europe he sent a cablegram in which he said that the British Admiralty believed that the policy of dispersion was

the best. Admiral Benson did not believe, in the first instance, that the convoy was the best method, and therefore he stated so in a telegram which he sent to Admiral Sims, a telegram, by the way, which Admiral Sims presented to your committee and which he said was signed "Daniels," and which I never signed.

But, though that was my opinion and though I stated it to Operations, I gave the responsibility as to whether we should depend upon armed guards or convoys to Operations to carry out, because under the law, and because it was wisest, Operations determined that policy; and in determining that policy it established the convoy, and never a troopship left America without a convoy.

The CHAIRMAN. I asked you if you did not have something to do with all of these matters recommended by Admiral Sims.

Secretary DANIELS. I had the right to the final say.

The CHAIRMAN. Yes.

Secretary DANIELS. I was in touch with the Chief of Operations, and I gave him a responsibility for the operations of the fleet, which he fully exercised; and if you will read his testimony you will see that he stated he had the full responsibility for it.

The CHAIRMAN. But at any time you could have held them up, could you not, if you had seen fit to do so?

Secretary DANIELS. Oh, of course; the Secretary of the Navy has the absolute power, and must have it, in the fixing of policies. When policies are fixed, however, in the Navy, then the Secretary of the Navy leaves the carrying out of those policies to the Office of Operations.

The CHAIRMAN. And at any time——

Secretary DANIELS. For example, Mr. Chairman, on April 10, 1917, Vice Admiral Browning, of the British Navy, and Rear Admiral Grasset, of the French Navy, arrived at Hampton Roads and held a conference with Admirals Mayo, Benson, and Wilson.

On May 11 these admirals from Great Britain and France, who were in charge of all British and French operations on this side of the Atlantic, and who for some time had kept up the patrol on this side of the Atlantic—because you must bear in mind there never was a time when the British did not patrol the coast outside of the 3-mile limit—they came to Washington and had a conference with the General Board, the Secretary of the Navy, the Assistant Secretary of the Navy, Admirals Benson, Mayo, and Wilson, and at that conference we laid down this policy, upon the request of the French admiral and the British admiral: We agreed to take over the entire coast from Halifax to Brazil and to furnish the patrols; and at that conference it was decided to order a division of destroyers to Great Britain, and those destroyers were that very day ordered to fit out for service, and the policy there was fixed that the Chief of Operations should send our ships into the area where they could best serve the cause.

The CHAIRMAN. Then, did you have nothing further to do with the sending over of any destroyers to the other side?

Secretary DANIELS. As to the sending over of the other destroyers, they were sent by Operations in the regular course, with full responsibility.

The CHAIRMAN. But never after consultation with you?

Secretary DANIELS. I gave no further orders except to send our ships where they could do the most good.

The CHAIRMAN. You did not O. K. any orders?

Secretary DANIELS. I signed the order—I was to put in the record, Mr. Chairman, the first order given for any naval or Army or any forces of America to go abroad, and I sent this order, prepared in Operations, to the first division of destroyers to go abroad. As to the destroyers that went, from these destroyers to the end of the war the matter of where the destroyers should go, and when, was determined by the Office of Operations. As Admiral Benson has told you, I was in frequent consultation, but my direction was to him and to the office to do everything possible to make all bold and audacious plans possible for the fullest use of everything America had to win the war.

The CHAIRMAN. Then, after these first six destroyers were sent over, you had nothing whatever to do with the sending over of destroyers; and if there was any delay in sending them over, Operations was responsible and not yourself; is that correct?

Secretary DANIELS. Every destroyer and every ship ordered to any place, from the minute we met on April 11 until the war was over, was settled by the Office of Operations.

The CHAIRMAN. And you had nothing to do with it?

Secretary DANIELS. I left that entirely to them.

The CHAIRMAN. So that if there was any delay in sending them over, Operations was to blame, and not yourself?

Secretary DANIELS. I left it entirely to Operations to assign the ships where they could serve American interests best. Both Admiral Benson and Capt. Pratt have made that statement very full and clear.

The CHAIRMAN. I am asking you the question now.

Secretary DANIELS. I understand; and I am answering it.

The CHAIRMAN. And before the sending over of these six ships were you then responsible in any way for the sending of any destroyers or anything of that sort?

Secretary DANIELS. Mr. Chairman, I was responsible for everything in the Navy, in the ultimate analysis; but as to the allocation of ships, as to the orders of ships, those orders were left to the Office of Operations, to send them where they could best contribute the greatest power of American force in the war.

The CHAIRMAN. And so you would say that if there was any delay or fault of any kind about sending them over, you would say that you would shake your skirts of any responsibility—I do not mean to be offensive in anyway—that you would have no responsibility?

Secretary DANIELS. I can not answer your question as to my shaking my skirts.

The CHAIRMAN. I mean, you would have no responsibility?

Secretary DANIELS. I assume the entire and full responsibility, and wish I could take with it the credit of the great things the Navy did. But under the plans we worked upon, I laid down the policy in consultation with the ablest officers of the Navy, and when that policy was laid down it was carried out by Admiral Mayo and his fleet under Operations, by the ships, and the orders that they made, which they thought would give the maximum of strength and American efficiency in the war were made by Operations.

The CHAIRMAN. Now, I asked you if before those six destroyers were sent over, you were in anyway responsible for their lack of preparedness or anything of the sort.

Secretary DANIELS. There was no lack of preparedness.

The CHAIRMAN. That is, all of the destroyers were ready when we entered the war in April, 1917?

Secretary DANIELS. I will give you the answer. In a telegram or a letter of May 11, 1917, Admiral Sims says:

6. Our ships made no demands of consequence upon the navy-yard facilities after arriving, in spite of the length of their passage under adverse conditions. The commander of the division, when questioned by the vice admiral as to when his vessels would be ready for duty reported that he should be ready that night, as soon as the ships were refueled. * * *

7. The vessels themselves caused a great deal of complimentary comment, and, contrary to expectations, were found to be well equipped for their prospective duty, with the single exception of depth charges.

The sixth division arrived on the evening of the 24th of May in excellent condition, no repairs being required.

Report of June 2, 1917, states that the Admiralty desired him to report "officially that the United States destroyer forces which are working in the Atlantic approaches are rendering most excellent and valuable services."

Report, undated, received in the Bureau of Steam Engineering, June 18, 1917:

1. It is gratifying to be able to report that the operation of our forces in these waters is proving not only very satisfactory but also of marked value to the Allies in overcoming the submarine menace. The equipment and construction of our ships has proved adequate and efficient.

The CHAIRMAN. But you are not answering the question I am asking you. What I am trying to find out is whether there was any distinction between you and the Navy; whether it is proper to criticize you and not at the same time criticize the Navy.

Secretary DANIELS. Mr. Chairman, it is perfectly proper to criticize me; in some quarters it is very fashionable.

The CHAIRMAN. And it was perfectly proper for Admiral Sims to criticize you in a letter to yourself?

Secretary DANIELS. In a letter to myself it was perfectly proper for him to make any recommendations he thought would improve conditions in the Navy. It was not proper for him to reflect upon any person in making his recommendations.

The CHAIRMAN. It was entirely proper for him to criticize things that he thought were not properly done, was it not?

Secretary DANIELS. If he stated the facts and proposed a remedy.

The CHAIRMAN. Yes. Well, I have already stated that to my way of thinking he did suggest a remedy. You may not agree about that.

Now, so far as the necessity of bringing out any mistakes that were made, if they were made, I will quote from Admiral Benson, at page 4744 of the typewritten record, as follows:

The CHAIRMAN. Do you feel that it is a reflection on the Navy and 500,000 young men that served in it that persons who were ultimately responsible for the conduct and the policies of the Navy during the war had not in all respects done what they should have done?

Admiral BENSON. I think it would be; yes.

The CHAIRMAN. That is, a reflection on you or a reflection on the Secretary of the Navy would be a reflection on all these men?

Admiral BENSON. It would reflect on the whole service.

The CHAIRMAN. You do not make any difference between a reflection upon the Navy as a body of men and upon the Navy Department?

Admiral BENSON. I think the whole service would be included, sir. But I do not admit—and the statement is not borne out in fact—if it were a true state-

ment and bore anything on its face that could be substantiated, and, coming as it does, a statement of that kind I consider most decidedly——

The CHAIRMAN. That is because you do not think it was based on facts. Now, I say, if it was based on facts, do you not think it is probably proper that it should be made?

Admiral BENSON. If it is based on facts, it should be made.

The CHAIRMAN. It should be made if it is based on facts?

Admiral BENSON. It should be made if it is based on facts.

The CHAIRMAN. Therefore, if anyone had the opinion that the Secretary of the Navy or the Chief of Operations had not performed their duties as they should, it is essentially important that that fact should be brought out, is it not?

Admiral BENSON. If any such fact existed, it certainly should be brought out.

The CHAIRMAN. And in bringing it out it is no reflection on the rest of the Navy?

Admiral BENSON. I think, in a way, the fact that anyone in the Navy had been negligent would reflect on the balance of the service.

The CHAIRMAN. Then you think that, in order not to reflect on the service, the actions of those responsible should be covered up?

Admiral BENSON. Certainly not.

The CHAIRMAN. Then, if it is not to be covered up, you do think it is perfectly proper that it should be brought out?

Admiral BENSON. Should be brought out, absolutely.

Now, that I think indicates that Admiral Benson thought, at least, that anything that had been done or left undone, or should have been done, should be brought out.

Secretary DANIELS. Yes. If Admiral Sims thought, as he stated in cross-examination, that any responsible officer in the Navy lacked the will to win in the early part of 1917, he should have communicated his suspicion or belief to the Secretary of the Navy or to the President of the United States, the Commander in Chief of the Army and Navy.

Now, Mr. Chairman, the regulations of the Navy are worded so as to prevent unfounded and insubordinate criticism. If an officer makes statements which are not supported by the facts and improperly reflect upon those in authority, he commits a breach of discipline in the military organization.

The CHAIRMAN. But, Mr. Secretary, in so far as facts go into the matter, you will admit that there is some discrepancy about them, is there not—discrepancy of viewpoint?

Secretary DANIELS. Discrepancy in what?

The CHAIRMAN. Discrepancy in viewpoint as to whether they were facts or not?

Secretary DANIELS. I would like you to define the word "discrepancy."

The CHAIRMAN. Differences of opinion as to what the facts were.

Secretary DANIELS. There can be no difference of opinion about facts. There can be a difference of opinion about things that are not facts. But when a man states as facts what are not facts, there is no warrant for his assertion.

The CHAIRMAN. And when another man finds fault with things that have been stated as facts, when he is stating what is so, he has no warrant for making the statement, has he?

Secretary DANIELS. I do not understand you.

The CHAIRMAN. I say if a witness has stated certain things as facts, and another man questions the matter, as to whether they are facts or not, he should not do so, should he?

Secretary DANIELS. You mean that the witness should not state as facts things that are not so.

The CHAIRMAN. I mean to say, things here have been testified to on both sides.

Secretary DANIELS. What do you refer to that has been testified to on both sides.

The CHAIRMAN. Admiral Sims has made certain statements, and certain other witnesses have borne him out. Then other witnesses have come along and have not borne him out.

Secretary DANIELS. What statements do you refer to now, in which witnesses have borne him out?

The CHAIRMAN. That is a rather large matter, to go over the whole of the testimony.

Secretary DANIELS. I will give you the regulations, for the record, which cover the whole situation.

The CHAIRMAN. Admiral Sims, for instance, stated that there were no proper plans when we went in, and he has produced facts about that, that he states are facts. Other witnesses have testified differently.

Secretary DANIELS. Yes; I am glad that you have changed that; you said that he produced facts. They were not facts.

The CHAIRMAN. I dare say some of the things he produced were facts, were they not?

Secretary DANIELS. Not anything he said about lack of plans.

The CHAIRMAN. That is a matter entirely to be looked into by the committee.

Secretary DANIELS. That is a matter that is already settled. That has been settled by the testimony before your committee.

The CHAIRMAN. In your opinion it has been settled; but you are not the one to decide that.

Secretary DANIELS. In the preponderance of the testimony.

The CHAIRMAN. What?

Secretary DANIELS. In the preponderance of the testimony.

The CHAIRMAN. The preponderance of the testimony? What do you mean?

Secretary DANIELS. I mean, the only people who could know about plans would be the General Board—I mean, to know specifically—the Operations, and the Secretary of the Navy. They have all been before you, and Admiral Badger, the chairman of the General Board, has given you not only the fact that they had plans, but has given you statements as to when the plans were made, and what they were.

Capt. Pratt has told you there were many plans. So when a man writes a letter to the department—if that had gone to the General Board and they had investigated it and gone through it as the General Board does about questions of that kind, they would have found, as a fact, that when Admiral Sims stated that they were lacking plans, he had not investigated and did not know.

The CHAIRMAN. I am going to ask you some questions a little later about plans. I will be very glad if you can clarify the matter of plans, because it has not been made clear as yet to me, and I think to some of the rest of the committee, and I hope you can clear the matter up entirely to our satisfaction.

Now, Mr. Secretary, what is your idea of the reasons why a Navy should be maintained by the people of the United States?

Secretary DANIELS. But one reason in the world.

The CHAIRMAN. What is that?

Secretary DANIELS. Ready to fight.

The CHAIRMAN. Ready to fight?

Secretary DANIELS. Yes.

The CHAIRMAN. For what cause?

Secretary DANIELS. For whatever cause the American Congress and the Commander in Chief orders them to fight.

The CHAIRMAN. That is, for matters in general?

Secretary DANIELS. Matters that Congress—when Congress declares war, the business of the Army and the Navy is to carry out the decrees established by the authorized powers of Government. That is the only excuse for the Navy. That is the only reason for the Navy. That is the justification.

The CHAIRMAN. That is, to carry out the foreign policies of the country?

Secretary DANIELS. The business of the Navy is to be the strong first arm of defense of our Republic, and to do whatever the authorized authorities order it to do. It has no power of initiative.

The CHAIRMAN. That is, in the internal affairs of the country, do you mean?

Secretary DANIELS. In its internal affairs so far as the Congress gives it power.

The CHAIRMAN. But Congress very rarely gives it any particular authority in its internal affairs, does it? It is mainly to carry out the foreign policies of the Government, is it not?

Secretary DANIELS. It is mainly to carry out whatever policies the Government orders it to carry out.

The CHAIRMAN. And in general that means the foreign policies, does it not?

Secretary DANIELS. Well, no; it may mean many things.

The CHAIRMAN. What other policies?

Secretary DANIELS. The Navy, for instance, does a good deal of surveying down in the Caribbean and over in Alaska. The Navy is employed in so many duties. Any duty that Congress imposes upon it that it can perform it must carry out; but its main purpose is to defend the American interests and the American rights as declared by Congress or directed by the Commander in Chief.

The CHAIRMAN. Yes; but in the main it is American interests as regards foreign nations, is it not?

Secretary DANIELS. In the main it is to carry out the policies that Congress orders it to carry out. It is not my business as Secretary of the Navy to determine what the Navy shall do in any crisis.

The CHAIRMAN. Do you mean that it is not your business to prepare for any crisis?

Secretary DANIELS. It is my business to have the Navy prepared to the fullest extent that Congress appropriates the money for any purpose.

The CHAIRMAN. And you are not to know anything beforehand or to plan beforehand in any way what is to be done with the Navy in any crisis?

Secretary DANIELS. Of course, we plan all the time for any possible crisis. If you will take the plans of the General Board; they have

made plans and have plans for patrol, for war with almost any country with which we might be involved in war, and that is far ahead of any suggestion of congressional action, because Congress appropriates the money and says, "Now, this Navy is to carry out whatever Congress orders it to carry out." Now, to the extent of the money that they give to the Navy, we must have the Navy strong and fit, and its mission must be to carry out the decree of Congress and the Commander in Chief.

The CHAIRMAN. I asked you what its principal mission was, and you have stated that it has a lot of missions, such as surveying——

Secretary DANIELS. That is incidental.

The CHAIRMAN. And matters of that sort.

Secretary DANIELS. The Navy exists to be ready for war. The Navy exists to defend American policies and American rights, and when Congress needs it, it is to carry out the decrees of the country.

The CHAIRMAN. When you say "ready for war and to defend American rights" you mean against some foreign country, do you not?

Secretary DANIELS. Well, I take it that Congress——

The CHAIRMAN. These minor matters, such as surveying and all that would be details?

Secretary DANIELS. Of course.

The CHAIRMAN. It is in general to protect against foreign nations and to carry out our foreign policies, is it not?

Secretary DANIELS. Why, the Navy is a war machine.

The CHAIRMAN. A war machine, and war means conflict with some other country?

Secretary DANIELS. When Congress orders it.

The CHAIRMAN. And one of its duties would be to protect us against attack from any foreign countries, would it not, or from any combination of foreign countries?

Secretary DANIELS. Its duty is to carry out the decrees of Congress and the Commander in Chief anywhere.

The CHAIRMAN. And in peace times one of its principal duties would be to maintain our honor with foreign nations, would it not?

Secretary DANIELS. In peace times its business is to keep itself fit and ready, and to preserve as it may the best relations with foreign countries, to be ready always to protect American rights.

The CHAIRMAN. And American honor?

Secretary DANIELS. And American honor.

The CHAIRMAN. With other countries.

Secretary DANIELS. If Congress so declares and when Congress so declares.

The CHAIRMAN. Do you mean that it has got to have a special act of Congress before it will defend American honor in other countries?

Secretary DANIELS. No; I do not. There are conditions under which the Commander in Chief may order the Navy, but no conditions except that. The Navy is not an institution that works on its own initiative. It is governed by the law. The Commander in Chief of the Army and Navy directs the Army and Navy. Very nearly every act that I perform or that the Secretary of War performs is by direction of the President. He is the Commander in Chief.

The CHAIRMAN. And you act under the President and of course in touch with him at all times?

Secretary DANIELS. Upon all great policies.

The CHAIRMAN. And the Commander in Chief—when you refer to the Commander in Chief you refer to the President as Commander in Chief, or do you refer to the actual force commander?

Secretary DANIELS. Of course I refer to the President.

The CHAIRMAN. And you act under the President?

Secretary DANIELS. I act under the President.

The CHAIRMAN. And you are kept in touch, then, by the President with his policy?

Secretary DANIELS. On all great policies which he wishes the Navy to execute.

The CHAIRMAN. Now, we have certain outstanding policies that we are supposed to keep up, and one of those is the Monroe doctrine, is it not?

Secretary DANIELS. It is a very pillar of cloud by day and a fire by night of American policies.

The CHAIRMAN. Another is the protection of the Panama Canal, is it not?

Secretary DANIELS. That is under the control of the Army.

The CHAIRMAN. But the Navy has to do a good deal toward protecting it, has it not? It has plans for the protection of the canal?

Secretary DANIELS. We have by inference, but the whole control, government and protection of the Panama Canal is under the control of the Army; but the Navy assists when it is called upon.

The CHAIRMAN. If the Panama Canal were ever attacked the Navy would be a part of its defense?

Secretary DANIELS. Outside, before they reached the canal; yes.

The CHAIRMAN. The Navy would be called upon if the canal were ever threatened?

Secretary DANIELS. The plans of the General Board are that in case of any serious apprehension as to the Panama Canal the Navy would protect its approaches.

The CHAIRMAN. Another would be the open-door policy. That is one of our policies, is it not?

Secretary DANIELS. As to how that should be carried out would be a matter entirely for the Commander in Chief or Congress to give authorization about; and even in carrying out the Monroe doctrine the Navy would not be free of itself to initiate a method of enforcing that doctrine.

The CHAIRMAN. Should not the building program of the Navy and all of its war plans and organization be drawn up in relation to these outstanding policies that we have always had.

Secretary DANIELS. They are.

The CHAIRMAN. They are?

Secretary DANIELS. Of course; always.

The CHAIRMAN. And the size of the Navy and everything of that sort would depend largely upon these outstanding policies that we have?

Secretary DANIELS. It ought to do so, but unfortunately Congress has not taken that view.

The CHAIRMAN. Have you recommended to Congress that it should take that view?

Secretary DANIELS. No; I mean this, that for many years, up to 1913, Congress gave a very small appropriation to our Navy, and

in 1909 we sunk from second place to third place, and it has been with very great difficulty that past Congresses—I do not speak of the Congresses since 1914 or 1915—past Congresses have been very slow to appropriate enough money.

For example, in the year 1912, though all these doctrines you speak of were just as vital as they are now, Congress appropriated money for only one dreadnaught, and previous Congresses had made very small appropriations; so that in 1913, when I became Secretary of the Navy, we found it necessary to increase by threefold, in the first Congress after I became Secretary, the number of dreadnaughts authorized, in order to begin the large expansion of the Navy, which came about and which gave us such efficiency in the World War.

The CHAIRMAN. So I take it that if Congress is to give you appropriations enough to keep up these policies that I have spoken about, in each case you make it clear to Congress that those policies will be jeopardized if they do not appropriate a sufficient sum of money to take care of them, do you not?

Secretary DANIELS. In the first place it is the function of the State Department to communicate to the President any foreign policy that should receive the attention of the country. The Navy Department is the policeman, and wherever the State Department recommends to the Commander in Chief, and he orders us, we undertake any duty. It is not my duty to come to Congress and say, "Gentlemen, Mr. Monroe enunciated a great doctrine. I tell you what to do about it." That is for the State Department; but when the President says, "In pursuance of the Monroe doctrine I wish the Navy to go to a certain place and do a certain thing," we go there.

The CHAIRMAN. Does the Secretary of State ever come before the Congress and recommend an increase in naval appropriations?

Secretary DANIELS. He does not. It is not his function.

The CHAIRMAN. Then the President would be the one to bring it before Congress, would he not?

Secretary DANIELS. Matters of great national policy.

The CHAIRMAN. Matters of the expansion or contraction of the Navy Department on account of national policies.

Secretary DANIELS. You asked me just now, Mr. Chairman, about the fact that the Navy ought to be ready to defend these policies, and I answered you that the Navy ought to be ready and is ready so far as Congress authorizes the money; but previous to 1914 or 1913 the appropriations had been very small, so small that our Navy had sunk from second to third place. Now, for example, let us go back, because a navy is not built in a day. It takes a long time to do it.

In 1898, in the Spanish-American War, the appropriations were \$144,000,000. They sunk in the years 1899 to \$57,000,000; in 1900, to \$66,000,000; in 1901, to \$83,000,000.

Now, it is manifest that you could not build a very great navy on that appropriation.

In 1902 the appropriations for the Navy were \$85,000,000; in 1903, \$84,000,000; in 1904, \$103,000,000; in 1905, \$118,000,000; in 1906, they went down to \$105,000,000; in 1907, \$100,000,000.

In 1908 the appropriations for the Navy went up to \$130,000,000; in 1909, \$140,000,000; in 1910 they went down to \$133,000,000; in

1911, still further down, to \$127,000,000; in 1912, \$129,000,000; in 1913, \$142,000,000.

In 1914, which was the first year I was Secretary of the Navy, it went up to \$148,000,000; in 1915, \$151,000,000; in 1916, \$313,000,000.

Now, let me illustrate the situation, because we want to get it clear in our minds, Mr. Chairman, as to the attitude of our country toward preparedness.

The first year I was Secretary of the Navy I recommended to Congress as high above everything else it should do was to appropriate the money to build two dreadnaughts. The year before that they had appropriated money to build only one dreadnaught. We secured that money after a very hard fight. Shortly thereafter we were enabled to sell the old *Idaho* and *Mississippi*, which were always misfits, ships that ought never to have been built, and which were built over the protest of the best naval constructors. We had an opportunity to sell those ships for enough money to build a modern dreadnaught, and so that year we secured three great dreadnaughts as against one in the previous bill.

In 1914 I again recommended two dreadnaughts, and there was a great fight against it.

I call attention to the fact that after that proposition had received the approval of the Naval Affairs Committee and went before the House, on February 5, 1915, as appears by the Congressional Record, page 3438, Mr. Witherspoon moved to recommit the bill to the Committee on Naval Affairs with instructions to forthwith report it back to the House with an amendment to strike out the word "two" where it occurs in line 4, page 64, and insert the word "one" in place thereof. That is to say, to strike out two dreadnaughts and build only one, the same number that was built in 1912.

Now, Mr. Chairman, in view of the large appropriations of Congress in the last six or seven years we can hardly believe the state of the country at that time and the sentiment in Congress; but against that motion I hinged my whole fight. I made the hardest fight I have made since I have been in Washington to secure an appropriation for two dreadnaughts that year. When that motion was made by Mr. Witherspoon, which would have reduced the appropriation to the building of only one dreadnaught that year when two was the minimum we ought to have had, the vote on that proposition was 149 for one dreadnaught and 165 for two dreadnaughts. A change of 8 votes would have knocked out one of our dreadnaughts, which, in my opinion and the opinion of the General Board, by all odds the biggest and most important need of the Navy—two dreadnaughts. Only 8 votes would have changed the result, and I call attention to the fact that the leaders of both political parties in the House of Representatives, Mr. Mann, of Illinois, the leader of the Republican Party, and Mr. Underwood, of Alabama, the leader of the Democratic Party, voted for one dreadnaught. I am not criticizing those gentlemen. They are among the ablest and most patriotic men in Congress; but public opinion in America then was not what it has been since. Public opinion was very narrow on the line of giving the Navy large amounts of money. But we secured the two dreadnaughts by a margin of 8 votes, and I regard it as the most difficult and the most important of the things the Navy Department did in those years to strengthen the Navy.

The CHAIRMAN. What I am trying to get at is the attitude of the Navy in regard to our foreign policies. If those foreign policies are not given to Congress Congress can not be blamed for not appropriating the money to keep up those policies, if it knows nothing about them, or unless they are brought specifically to its attention. Now, what I want to know is whether these matters are customarily brought to the attention of committees of Congress when appropriations are asked for, or are you simply asking for an extra dreadnaught because you as Secretary of the Navy think we ought to have it. I want to know whether that has been done in the past during your administration.

Secretary DANIELS. I told you just now that the General Board makes plans for any possible war in which we might be engaged, and in doing so it takes into consideration all the possible dangers by the attack upon any of our foreign policies or any of our rights.

The CHAIRMAN. And are their reasons given to Congress?

Secretary DANIELS. Do you mean as to foreign matters?

The CHAIRMAN. Yes.

Secretary DANIELS. Never in public.

The CHAIRMAN. I have been on the Naval Affairs Committee for a number of years. I do not recall, until very recently, having any matter connected with foreign policy brought up before that committee, and that was when Admiral Rodman spoke to us the other day.

Secretary DANIELS. As a matter of fact, the Naval Affairs Committee always has every information about it. As a rule, the Senate committee has not held elaborate hearings or gone into very large policies. The House has very long hearings and the hearings of the House committee are printed, and, of course, the Senate has access to them. I would not go before any Naval Affairs Committee in public and speak of what ought to be the American foreign policy. It would be out of my province.

The CHAIRMAN. At least you could speak to the committee about these outstanding policies that I have spoken about, could you not?

Secretary DANIELS. I speak to the Naval Affairs Committee. I might say, Mr. Chairman, that in the recent months I have been before the committees of the House and Senate and discussed at very great length matters of foreign policy which might affect the Navy, and made certain requests based upon those conditions, but I did not publish them and neither did the committee.

The CHAIRMAN. Were you yourself kept in thorough touch, during your administration as Secretary of the Navy, with the foreign policies of the administration?

Secretary DANIELS. All foreign policies that touched the Navy, or where the Navy was expected to function, and in the large—yes.

The CHAIRMAN. From March, 1913, to April, 1917, did the President or the Secretary of State keep you actively informed of the President's changing foreign policies, so that you could keep the Navy prepared in all respects with reference to those policies instantly?

Secretary DANIELS. Mr. Chairman, I never repeat to any committee or any individual, anywhere, any communication between the President and the Secretary of the Navy.

The CHAIRMAN. I am not asking you to repeat them. I am asking you if you were kept informed.

Secretary DANIELS. I knew of the policies that the President felt for the Secretary of the Navy—I knew the policies in the large.

The CHAIRMAN. Enough to give you a basis for recommendations about the Navy?

Secretary DANIELS. I was in very close touch with the President always, and his attitude toward the Navy was always far in advance of any appropriations that Congress would give.

The CHAIRMAN. And were you kept posted as to what sudden demands the President's foreign policies might make on the Navy?

Secretary DANIELS. I answer that by saying that I can not disclose any communications I had with the President.

The CHAIRMAN. I did not ask you to. I asked you if there were.

Secretary DANIELS. You asked me the same thing. The discussions of the Cabinet and the discussions between the President and his Cabinet officers are such matters that I have not the liberty to disclose. I say this, that in the large I knew the policies of the administration.

The CHAIRMAN. Enough so that you could go ahead and adequately prepare the Navy for any action that might be necessary under these policies?

Secretary DANIELS. You spoke of 1913, did you not?

The CHAIRMAN. From 1913 to 1917.

Secretary DANIELS. In 1913 I became Secretary of the Navy. On the 5th day of March I found that the previous Congress had authorized only one dreadnaught; that the personnel of the Navy was about four or five thousand short; that the attitude of nearly one-half of the Congress was not in favor of a very large expansion of the Navy, and it was my duty to present to that Congress and procure, for the strengthening of the Navy, such additions as could be secured.

The CHAIRMAN. That is, for any specific plans or for just the general welfare of the Navy?

Secretary DANIELS. Why, we always had specific plans.

The CHAIRMAN. And your recommendations were based on these specific plans?

Secretary DANIELS. Always based on strengthening the Navy for the service it would be called upon to perform.

The CHAIRMAN. And you knew what that service would be? You were kept posted?

Secretary DANIELS. Well, if I had known, Mr. Chairman, in 1913 what possible service should be ahead of the Navy, or the world, I would have been ten times a prophet. I went before Congress, a Congress that had varying opinions, and secured from that Congress the largest appropriations for increase of the Navy that had ever been secured before in time of peace, and it was no easy task, because, while in that Congress there were many men like Chairman Padgett then and Chairman Butler now, and Chairman Tillman then and Mr. Lodge, and those gentlemen, if you will go back to those days of 1912, why, in 1912, Mr. Chairman, they had a fight here all summer whether they should have one dreadnaught or two. I was not Secretary of the Navy; I was a private citizen; I had no responsibility about it; but I worked with every Member from my State, and a

dozen others that I knew, urging them to vote for the two-battleship program.

The CHAIRMAN. That was the two-year program——

Secretary DANIELS. That was in 1912.

The CHAIRMAN. What you were referring to before—the great increase in the Navy—was in 1913?

Secretary DANIELS. No; the program I recommended in December, 1913, was the biggest appropriation of money for the Navy ever enacted except in time of war.

The CHAIRMAN. And was that so recommended to carry out any specific foreign policies of the administration with which you were familiar?

Secretary DANIELS. It was recommended to make the Navy fit, so far as Congress would give the money, for carrying out any policy which the General Board had worked out in its plans of battle.

The CHAIRMAN. But no specific policy?

Secretary DANIELS. Do you think, Mr. Chairman—I forgot; I must not ask you questions.

The CHAIRMAN. I am not on the witness stand.

Secretary DANIELS. No; you are not on the witness stand. In 1913 there was only the necessity for strengthening the Navy. But specific plans had been made for war with Germany; I can speak of that now; and specific plans for war with any country. They were all full. I examined them carefully. I had not been in office but a few days before I went over to the General Board, and Admiral Dewey and his assistants showed me the plans drawn up for a war with Germany, if need be, or war with any other country with which we might be engaged; and I knew all the time that that board of naval statesmen, who were charged with large responsibilities, were performing them with great ability——

The CHAIRMAN. Were they kept posted on the President's foreign policies by you?

Secretary DANIELS. I posted them with the general policies so far as related to the Navy.

The CHAIRMAN. And from 1913 to 1917 did you keep them thoroughly posted about these shifting foreign policies?

Secretary DANIELS. Well, they were always posted. When you say, Did I keep them thoroughly posted——

The CHAIRMAN. They had no access to the President, I suppose?

Secretary DANIELS. No; but I was always in close touch with them.

The CHAIRMAN. But you had not yet told me whether you yourself were kept sufficiently posted by the administration on these foreign policies to make definite plans.

Secretary DANIELS. I have told you very clearly that in the large I was familiar with them.

The CHAIRMAN. In the large?

Secretary DANIELS. In the large and in general; with any and every thing that touched the Navy, fully.

The CHAIRMAN. But were you sufficiently posted as to follow the logical procedure of having detailed base plans and operative plans worked out to fit each major contingency of the President's policies?

Secretary DANIELS. The General Board had plans worked out for war with any country.

The CHAIRMAN. No; I asked you if you, yourself, were sufficiently posted to do this?

Secretary DANIELS. I was in touch with the General Board and knew they were doing——

The CHAIRMAN. No, no; were you sufficiently posted by the administration so that you would know definitely what to go ahead on?

Secretary DANIELS. I do not understand you.

The CHAIRMAN. I asked you if you were sufficiently posted so as to follow the logical procedure of having detailed base plans and operative plans worked out to fit each major contingency of the President's policies; if you, yourself, were sufficiently posted by the administration to do that, so that you could go ahead and make plans?

Secretary DANIELS. Well, I have told you, Mr. Hale, that in the large I knew of the foreign policies; and in everything that concerned the Navy I knew them and communicated with the General Board, who worked out all plans that would be ready for any emergency.

The CHAIRMAN. And as these policies shifted you were informed of them if the Navy was in any way concerned?

Secretary DANIELS. I was fully acquainted with them wherever the Navy was touched, certainly.

The CHAIRMAN. And you were informed at once when any change was made in these policies?

Secretary DANIELS. I was at a Cabinet meeting twice in every week, and in anything particular I was in touch with the President also; and his interest in the Navy, in its strengthening, its readiness, was always far in excess of that of any other man who talked about the Navy.

The CHAIRMAN. Then did you have detailed base plans and operative plans worked out to support the Monroe doctrine, for instance?

Secretary DANIELS. Mr. Chairman, I have told you that we had plans worked out for war with any nation in the world.

The CHAIRMAN. That is, specific plans, docketed, for each nation?

Secretary DANIELS. For any nation that we might be at war with; yes.

The CHAIRMAN. That is, for war with Germany?

Secretary DANIELS. I have said so; for war with Germany.

The CHAIRMAN. For war with England?

Secretary DANIELS. I decline to state what plans we had worked out for war with any other nation but Germany, because I can not discuss any nations with which we were friendly.

The CHAIRMAN. But is it customary that the Navy should have plans worked out for war in case we should get into war with other countries?

Secretary DANIELS. It is; and we had them.

The CHAIRMAN. With other countries?

Secretary DANIELS. Yes.

The CHAIRMAN. Besides Germany?

Secretary DANIELS. With any possible enemies?

The CHAIRMAN. With all possible enemies?

Secretary DANIELS. With any possible enemies.

The CHAIRMAN. And that means any nation; might mean any nation?

Secretary DANIELS. It might mean any nation. They are distinguished by colors, you know; you have a yellow plan and a green plan and a blue plan. Of course, each color means a country.

The CHAIRMAN. You did not have any specific plan, so far as the Monroe doctrine was concerned or so far as the open-door policy was concerned or so far as the Panama Canal was concerned, did you?

Secretary DANIELS. Well, those doctrines could only be maintained by a specific plan for war with some country, and we had them.

The CHAIRMAN. You did have specific plans for each individual country as related to those particular policies?

Secretary DANIELS. With any country with which we might be at war.

The CHAIRMAN. And that, you say, might be any country.

Secretary DANIELS. That might be any country that attacks our rights.

The CHAIRMAN. Did you have those plans for half a dozen countries, say?

Secretary DANIELS. We had plans for every country that had power enough to make it possible they could give us trouble.

The CHAIRMAN. And kept right up to date?

Secretary DANIELS. Always up to date.

The CHAIRMAN. And those plans are on file in the department now?

Secretary DANIELS. Those plans are worked up to date, in the General Board.

The CHAIRMAN. And they were worked up-to-date on April 6, 1917?

Secretary DANIELS. Worked up-to-date all the time.

The CHAIRMAN. Specific, detailed, basic, and operational plans?

Secretary DANIELS. Plans that the General Board worked out carefully and thoroughly and fully.

The CHAIRMAN. I think there has been some conflict of testimony about that.

Secretary DANIELS. Well, I will refer you to the testimony of Admiral Badger with reference to the General Board's plans.

The CHAIRMAN. On what specific basis did you make recommendations to Congress for the building program? Was it on these specific plans that you had worked out?

Secretary DANIELS. What years?

The CHAIRMAN. While you were Secretary.

Secretary DANIELS. All the years?

The CHAIRMAN. Yes.

Secretary DANIELS. In the first year, 1913, I was confronted with a situation in which the previous Congress had declined to appropriate for one dreadnaught. The sentiment in the country was very much divided. I discussed with able naval advisors, among them Admiral Dewey, and we felt that the supreme thing that year, the very basis of the whole naval structure, was to secure more dreadnaughts, and so I made my recommendation on the basis of strengthening the Navy in the place where it would have the strongest power.

The CHAIRMAN. More dreadnaughts for what purpose; for what specific foreign policy?

Secretary DANIELS. Why, to fight an enemy.

The CHAIRMAN. For any particular enemy?

Secretary DANIELS. Any enemy that came.

The CHAIRMAN. That is, general preparation for the fleet; not for any specific occasion?

Secretary DANIELS. Why, I would not make a different kind of a dreadnaught to fight Germany—

The CHAIRMAN. You would if you knew we were going to fight Germany; you would need dreadnaughts of a certain type?

Secretary DANIELS (continuing). Or Dorenia or X, or Y, or Z.

The CHAIRMAN. If you knew we were going to fight them, you would want the best kind of dreadnaughts most adapted to fight them, would you not?

Secretary DANIELS. I would build a dreadnaught so powerful and so big that it would not make any difference whether it was Germany or Utopia, that we could have the strongest power with it. Of course, I did not sit down and say to the committee, "Gentlemen, build this kind of battleship for Germany; build this kind of battleship for A; build this kind of a battleship for B, and this kind for C." That would be folly. I said, "Build the best dreadnaught you can build, for anybody in the world"—that was the policy—"and build all you will."

The CHAIRMAN. The best general dreadnaught for any nation in the world would be the best for the majority of them, and not the best for the country with which we would specifically go to war; and if you knew that we were going to war you would naturally adopt that which was best adapted to fight that country with which we were going to war, would you not?

Secretary DANIELS. The dreadnaughts we secured authorization for then were the best possible fighting ships to fight any particular nation.

The CHAIRMAN. That may very well be, so that they would be the best for Germany or whatever country we were going to war with.

Secretary DANIELS. The best for Germany; and, of course, Mr. Chairman, in the type of dreadnaught we build, that was a matter for the technical experts of the Navy; and the method of determining what kind of ship you will build in the Navy—I can explain it to you. The General Board fixes the characteristics of ships, and in doing so it always has before it the Chief of Naval Construction, the Chief of Steam Engineering, the Chief of Ordnance, and the chief of every bureau that has anything to do with building that ship; and after they have gotten the opinions of all of them—after they have studied all their plans—they fix up the plan to build a ship.

The CHAIRMAN. Now, will you give the recommendations you made, giving the further years while you were Secretary, and tell me how they were based on foreign policies of the Government?

Secretary DANIELS. I have explained 1913.

The CHAIRMAN. You did not say anything about foreign policies.

Secretary DANIELS. Why, I did. I said I based them to fight any enemy that would contest with them.

The CHAIRMAN. That is the general reason.

Secretary DANIELS. Any nation that fought us.

The CHAIRMAN. Will you go ahead with the other years?

Secretary DANIELS. In 1914 I recommended two dreadnaughts—sold the *Mississippi* and *Idaho* after a very hard fight. There was a

great fight in the House. I asked Congress to let me sell those two ships, and that was everywhere indorsed; and then I said I wished this money appropriated to build a new dreadnaught—to sell these two old ships for a new one. That proposition we had a very hard fight on—lasting for days—and the contention was that two dreadnaughts were enough, and we ought not to build any more, and that this money we got from the *Idaho* and *Mississippi* ought to be covered into the Treasury for ordinary purposes. But we succeeded in getting three. That was my recommendation in 1914.

Let me get my figures for 1915. I will take up 1915. The act of March 3, 1915, created a Chief of Naval Operations and provided for the establishment of a Naval Reserve; provided for the building of 2 dreadnaughts, 6 destroyers, 2 seagoing submarines, and 16 smaller submarines; and, for the first time in the Navy, appropriated \$1,000,000 to begin aviation.

In addition, as I have said, we sold the *Idaho* and *Mississippi* and received the money to secure the building of a modern dreadnaught. I will give you the dates in 1915, because they come in very properly here. April 24, 1915, I had a letter from Dr. Garfield, the president of Williams College, asking about the condition of the Navy, and I wrote and told him there were fully commissioned 225 vessels, 36 more than when I became Secretary in 1913; 100 vessels of various types in reserve and in ordinary; 77 under construction, including 9 dreadnaughts, 23 destroyers, 38 submarines, and 7 auxiliaries, as compared with 54 on March 1, 1913; and the personnel, line and staff, had been increased 5,824 on April 28, 1913. The law having passed in March authorizing the creation of Naval Operations, I appointed William S. Benson, charged with the "operations of the fleet and with the preparations and readiness of plans for its use in war." That is the law.

On May 7, 1915, the *Lusitania* was sunk.

On May 11 Admiral Benson took office as Chief of Operations, with Capt. Volney Chase as senior aid and two other assistants.

On May 15, 1915, there was a review of the Atlantic Fleet at New York, at which I spoke and urged the building of a greater Navy. I have presented an extract from a newspaper, in my direct statement, stating this policy.

On May 28, 1915, I sent a letter to all chiefs of bureaus directing them to report on their preparedness for war, with a view to remedying all deficiencies.

On May 28, 1915, Rear Admiral Grant was placed in command of our entire submarine service, being given broad powers with the object of remedying any deficiencies.

On June 2, 1915, I started a new policy of making the commandant of the Marine Corps a member of the General Board.

On June 11, 1915, I held a conference with Admiral Benson and other naval authorities regarding the expansion of the Navy and plans for larger construction program.

June 19 I signed an order putting into effect a new accounting system for navy yards.

On June 28 I created the advisory council, composed of the Assistant Secretary, the Chief of Naval Operations, the chiefs of bureaus, and the commandant of the Marine Corps, and at its weekly meetings all phases of naval policy and preparedness were dis-

cussed; increased the inspection board and survey begun of all merchant vessels with a view to their utilization as naval auxiliaries in case of war.

Steps were taken to reorganize and improve the system of naval communication, including radio, telegraph, and telephone service.

In July, 1915, I directed the General Board to submit a program, "formulated in the most definite terms," for a consistent and progressive development of the Navy.

The CHAIRMAN. I am asking specifically, Mr. Secretary, about your recommendations?

Secretary DANIELS. I am coming to them.

July 30, 1915, the General Board reported that the United States Navy should ultimately be equal to the most powerful maintained by any other program for the next fiscal year in accordance with this policy.

July, 1915, I appointed the Naval Consulting Board, with Mr. Edison as its head, he consenting to become its president.

August, 1915, as in the preceding months, numerous discussions were held as to a larger continuous building program and general expansion of the Navy, including personnel as well as vessels, extension and improvement of navy yards and stations, and other measures of preparedness.

September, department and various bureaus were making up their estimates for the next fiscal year, which had to be submitted before October 15, and were to include estimates not only for many more ships and larger personnel, but yards, stations, etc., in readiness for emergency, and for accumulating reserves of munitions, supplies, materials, spare parts, etc.

Naval Consulting Board actively at work. Survey of the country's plants and factories, sources of supply, and materials for war purposes planned and soon begun.

October 7, 1915, Secretary directed the General Board to prepare "a building program for the Navy that will continue over a period of five years, with an expenditure of about \$100,000,000 each year for five years, on new construction only."

October 12, General Board submitted five-year continuous-building program, embracing 156 naval vessels; total cost (estimated), \$499,876,000.

October 15, Secretary submitted naval estimates to Secretary of the Treasury, including estimates for 55 vessels to be appropriated for in the next naval bill—the first year of the new building program.

December 1, 1915, Secretary, in annual report, recommended five-year building program and urged its adoption. Also recommended increase in personnel.

December 6, estimates submitted to Congress by the Secretary of the Treasury.

December 7, the President, in his annual message to Congress, urged the authorization of the continuous-building program recommended by the Secretary and the General Board.

That gives you the first three years.

The CHAIRMAN. I do not see therein any special recommendation of increases in the Navy on account of keeping up with the foreign policies of the Government. It seems to me it was just a general rounding out of the Navy.

Secretary DANIELS. Well, Mr. Chairman, I can not understand what you mean by my discussing general foreign policies. General foreign policies are not within the purview of the Navy; they are matters that come under the purview of the Secretary of State.

The CHAIRMAN. And they are discussed, I presume, in the Cabinet meetings, and the Secretary of the Navy is kept in touch with those foreign policies in order that he may know just how much increase he may need at any time in the Navy; is not that right?

Secretary DANIELS. You may assume what the Cabinet discusses, but I can not tell you what the Cabinet discusses.

The CHAIRMAN. I do not think you would be violating any confidence to tell me whether or not you were kept up with these policies so that you would know what to do.

Secretary DANIELS. I have told you several times that I knew, in the large, the foreign policies. In detail I knew such of them as concerned the Navy.

The CHAIRMAN. Now, you state that before we entered the war there were prepared comprehensive base and operative plans for war with Germany in cooperation with the Allies?

Secretary DANIELS. Admiral Badger gave you all the statement about plans.

The CHAIRMAN. Yes; but I want you to state this. You have stated that you had comprehensive plans for war with a number of countries, and Germany was one of them.

Secretary DANIELS. When it comes to the details of the plans, that is the duty that is committed to the General Board, and they assured me always—and I saw many of them—that they had a comprehensive plan.

The CHAIRMAN. As the responsible head of the Navy, I suppose that you would naturally be kept in touch with those plans more than anyone else, would you not?

Secretary DANIELS. I did not go into the detail of every plan.

The CHAIRMAN. Did you not know whether they were thoroughly up-to-date, detailed plans; and did you have such a one with Germany when war was declared?

Secretary DANIELS. They were thoroughly up to date.

The CHAIRMAN. When war was declared?

Secretary DANIELS. Thoroughly up to date.

The CHAIRMAN. And thoroughly up to date on February 2, when the German ambassador was given his papers?

Secretary DANIELS. Thoroughly up to date.

The CHAIRMAN. Can you give the committee the plan which touched war with Germany that was thoroughly up to date?

Secretary DANIELS. If the committee will visit the General Board office, Admiral Badger will give them, for their information, any information they desire, but I can not put in the record any plan as to any particular country, because the plans in general have a common basis, and you would give away to the world the result of the study of decades of able naval officers, which no nation ever makes public.

The CHAIRMAN. I will ask you to give us specifically, then, the plan for Germany which you had in the department and which you say was thoroughly up to date on April 6, 1917.

Secretary DANIELS. If your committee desires to see the plans we had with Germany, Admiral Badger will show them to the committee, but I can not put them in the record.

The CHAIRMAN. I will ask you to bring that plan here to-morrow.

Secretary DANIELS. I will confer with Admiral Badger about it and the General Board. All plans for war have basic policies.

The CHAIRMAN. But Admiral Badger submitted a number of memoranda and data which are referred to as plans. Now, I would like to concretely and definitely get the plans that we had for war with Germany when war was declared in April, 1917.

Secretary DANIELS. He submitted to you such data as the able naval statesmen believed should be printed. As to any other data, I will take that up with the General Board.

The CHAIRMAN. I have not been able yet to find any specific plan for war with Germany that has been shown or testified to before the committee, and I would like to have that matter cleared up.

Secretary DANIELS. I will take that up with the General Board.

The CHAIRMAN. And when you appear next before the committee—

Secretary DANIELS (interposing). I will answer your question.

The CHAIRMAN. You will answer the question?

Secretary DANIELS. Yes; I will either bring it or tell you why I can not?

The CHAIRMAN. Not this afternoon, but in the next day or two?

Secretary DANIELS. Yes; I will.

The CHAIRMAN. And if you can not give the plan specifically, will you post yourself on it so that you can tell us in general the nature of it?

Secretary DANIELS. I will confer with the General Board—

The CHAIRMAN (continuing). And not thereby violate any confidence?

Secretary DANIELS. I will confer with the General Board about it.

The CHAIRMAN. Very well. The committee will stand adjourned until 2 o'clock this afternoon.

(Thereupon, at 12.45 o'clock p. m., the subcommittee took a recess until 2 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee reconvened, pursuant to the taking of the recess, at 2 o'clock p. m., Hon. Frederick Hale (chairman), presiding.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. The committee will come to order. Mr. Secretary, you stated this morning that the General Board had a detailed plan prepared for war with Germany, did you not, at the outbreak of the war?

Secretary DANIELS. Yes; we had plans for war with every nation in the Atlantic.

The CHAIRMAN. And especially one for war with Germany?

Secretary DANIELS. Yes. I would like to say, Mr. Chairman, that since the morning session I have had a conference with Admiral

Badger, chairman of the General Board, and he will be very happy, at the pleasure of the committee, at any time after to-day, to bring all the plans in executive session of the committee, so that you may see the plans. I would like to say, Mr. Chairman, that this morning, in response to a question which you asked me, I referred to a statement of Admiral Sims with reference to the fact that he had charged Admiral Benson with not having the will to win, and neither you nor I remembered exactly the place where that occurred, nor exactly what Admiral Sims had said. I find my recollection was very clear about it. I refer to pages 656 and 657 of your typewritten record, in Admiral Sims's cross-examination.

The CHAIRMAN. My recollection is that there was nothing of the kind in the letter. This is not in the letter?

Secretary DANIELS. No; I said it is in the cross-examination. He was explaining the letter. I wished to be very careful not to misquote Admiral Sims, so I looked back to see what his language was. Admiral Sims says on page 657 of the typewritten record:

Now, my reason for putting it in the letter may not be so clear to a civilian as it is to a military man, but the spiritual foundation of every war is the will to victory, and if any man, no matter how honest, has an invincible prejudice against the people that we are fighting alongside of, it is very probable that it has an unconscious influence upon him; and that is the reason that in submitting this letter for the consideration of the Navy Department I put that in there, as one of the most important things in the letter, that if ever we go into a war again we want to make sure that the spiritual foundation of our organization, the will to victory, is sound.

The CHAIRMAN. I do not think anyone can question that. That is good doctrine, is it not?

Secretary DANIELS. But when you charge the Chief of Operations with not having the will to win, you charge him with a grave crime.

The CHAIRMAN. I do not think it does charge him.

Secretary DANIELS. I think that would be the interpretation of it. I do not see any other interpretation of it.

The CHAIRMAN. He says that the "spiritual foundation of every war is the will to victory, and if any man, no matter how honest, has an invincible prejudice against the people that we are fighting alongside of, it is very probable that it has an unconscious influence upon him." Certainly that could not be disputed.

Secretary DANIELS. I wish to say that charge is a seriously grave one, inexcusable.

The CHAIRMAN. That statement you have just read?

Secretary DANIELS. The only inference from that statement is that the gentleman concerning whom he uttered that statement did not have the will to win.

The CHAIRMAN. I would like to put in at that same place the statement that Admiral Sims made just before making that on page 657. [Reading:]

I would also like to say that I have always had the best possible relations with Admiral Benson. I regard him as an upstanding and honest man who has exceedingly strong convictions, and who is very firm in adherence to these convictions. I believe everything he has done during the war has been done conscientiously and to get along with the war. I believe that it is due to Admiral Benson alone that I was given the opportunity to serve in this war as the commander of the forces abroad. In fact, he told me that his insistence upon my being put in command of those forces abroad had brought upon him the enmity of pretty much all the senior officers of the Navy, that being due to

the fact that when I was appointed I was the last name on the list of rear admirals in the naval register at that time. I state this in order to make it clear that there is nothing whatever personal about this.

Secretary DANIELS. When we adjourned this morning, Mr. Chairman, we were talking about plans. The ambassador from Germany was given his walking papers on February 3. On February 4 the General Board wrote to the Secretary of the Navy as follows:

[G. B. No. 425. Confidential. Serial No. 666.]

FEBRUARY 4, 1917.

From: Senior member present:

To: Secretary of the Navy.

Subject: Steps to be taken to meet a possible condition of war with the Central European Powers.

On account of existing conditions, the General Board recommends that the following steps be taken to meet a possible condition of war with the Central European Powers:

1. Complete complements and allowances of all kinds, first of the A and B fleet, then of the C fleet, and naval districts.

2. Mobilize the A fleet in the lower Chesapeake, and increase it immediately to the B fleet. (See Black plan.)

3. Dock and repair all ships in reserve and ordinary that will be used.

4. Arrange for the supply of fuel to the fleet and stock all fuel depots to capacity.

5. Establish additional recruiting stations and increase personnel of the Navy and Marine Corps to the total number required to supply complements for all the ships built, building, and authorized, and to maintain shore establishments and naval defense districts, including aviation service, with 10 per cent additional for casualties as follows:

Enlisted force: Navy, 150,000; marines, 30,000; officers in proportion prescribed by law.

6. Mobilize the naval districts, including the Coast Guard and Lighthouse Services, and put patrol vessels, mine sweepers, etc., of the Atlantic coast districts on their sweepers, etc., of the Atlantic coast districts, on their stations; no commercial vessels to be mobilized in the Pacific coast districts at present.

7. Prepare to the utmost detail for the employment of mines along our coast as may be necessary.

8. Prepare nets and other obstructions for submarines, ready for immediate use, at the Chesapeake Capes, Delaware Capes, entrance to New York Bay, eastern entrance to Long Island Sound, Narragansett Bay, Panama Canal, and Guantanamo.

The **CHAIRMAN.** What is this you are reading? Is this in reply to my question about a detailed plan?

Secretary DANIELS. This is in reply to your question about plans of the Navy.

The **CHAIRMAN.** But this has already gone into the record, has it not?

Secretary DANIELS. Yes; it is in Admiral Badger's testimony.

The **CHAIRMAN.** You see, you have already made your testimony, your direct statement, Mr. Secretary, and now I want to ask you some questions. It is no good to me if you do not answer my questions.

Secretary DANIELS. This is an answer to your question, because you raised the question of plans.

The **CHAIRMAN.** I am in hopes to get from you, before we get through, a statement of just what plans we had at the outbreak of the war, and on February 2; and if you are not at liberty to give them out because they are confidential, I want the plans to be mentioned, as confidential, as stated. This that you are reading has already been put in the record.

Secretary DANIELS. This is answering your question, and is exceedingly important. Here was the German ambassador sent home February 3. This communication is dated February 4. Here is what we did, and this is the detailed plan.

The CHAIRMAN. It has been put in already once, has it not?

Secretary DANIELS. It is in Admiral Badger's testimony. It does not come in in response to your questions to me.

The CHAIRMAN. I am not asking you about what was in the plan, but I am asking you about the plan, so that I can get it in my mind.

Secretary DANIELS. I am giving you the plan now.

The CHAIRMAN. So far I have been unable to.

Secretary DANIELS. I am giving you the plans now. [Continuing reading:]

12. For the present use the greater part of the destroyer flotillas as patrol for submarines in the vicinity of the principal ports or entrances leading to them.

13. Base the submarines at Canal, Guantanamo, and points along the coast in accordance with Black plan.

14. Rush to completion all naval vessels building or authorized; also build up the aviation service as rapidly as possible.

15. Guard all bays and harbors on the coast of Maine, to prevent their use as bases of supply. Patrol waters of Haiti, Santo Domingo, Porto Rico, and Danish West Indies; Cuban Coast Guard Service to assist in patrolling all bays and gulfs of the coast of Cuba.

Prepare to close entrances to all ports at night and discontinue or change such aids to navigation as may be necessary.

17. Organize a comprehensive system of intelligence service covering the whole theater of war in accordance with the plans of the Office of Naval Intelligence.

18. Take possession of all interned vessels of war of central powers, also take control of all commercial vessels of central powers now in United States waters.

19. Place under surveillance all citizens of the central powers in the Navy or in Government employ in naval establishments and remove them from positions in which they may do possible harm.

20. Arm our merchant ships for purposes of defense.

21. In accordance with Black plan, carry out the following:

(a) Issue proclamation prescribing defensive sea areas and put rules in regard to them in force.

(b) Issue proclamation prescribing press regulations and establishing censorship of cable and radio, including naval control of all commercial and private radio stations.

(c) Issue President's order in regard to visit and search, capture, etc.

22. And as most important—

Now, this is February 4, 1917—

arrange, as soon as possible, plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce and for offensive naval operations against the common enemy.

CHAS. J. BADGER.

That was the day after the walking papers had been given to the German ambassador, showing that the General Board made a very comprehensive plan, with 22 specific directions.

The CHAIRMAN. That was approved by you when?

Secretary DANIELS. I have not the date here, but it was approved as soon as it came to me.

The CHAIRMAN. Does that appear on the plan?

Secretary DANIELS. It was approved by me, Mr. Chairman. I do not see in this testimony the actual official action.

The CHAIRMAN. Then what became of it after it was approved by you?

Secretary DANIELS. It went to Operations to carry out.

The CHAIRMAN. It went to Operations?

Secretary DANIELS. To carry out.

The CHAIRMAN. February 4. March 22, 1917, there is another letter from the senior member present to the Secretary of the Navy, war being imminent; protection of merchant shipping recommended; April 5—I am going to ask you some specific questions, Mr. Secretary, that will take in all these matters, and I suggest that you put them in following my questions, if you have no objection.

Did you state, Mr. Secretary, that there was a detailed plan, a base and operational plan, in the General Board as early as February 1, 1917?

Secretary DANIELS. There were plans not only on that date but previously, and continued up to date.

The CHAIRMAN. Was there a plan that was right up to date on February 1, 1917?

Secretary DANIELS. Yes; and has been always, from the time the General Board was organized up to this minute.

The CHAIRMAN. Which would cover a war with Germany?

Secretary DANIELS. Which would cover a war with the central Empire; yes, sir.

The CHAIRMAN. Which would cover a war with Germany?

Secretary DANIELS. Yes.

The CHAIRMAN. And that plan was in the possession of the General Board at that time—that is a plan which you say you can not show us now on account of its confidential matter and bearing?

Secretary DANIELS. No; I said I could not show you any basic plan, but that Admiral Badger would show your committee, in confidential session, any of the plans.

The CHAIRMAN. But do you not claim that these other matters you are putting in are a part of the basic plan?

Secretary DANIELS. No; these do not go into details. These are plans showing what will be done; and this plan is not in detail.

The CHAIRMAN. Are they operational plans?

Secretary DANIELS. They are plans of policy.

The CHAIRMAN. Plans of policy?

Secretary DANIELS. Yes.

The CHAIRMAN. Then you would say they were base plans—plans of policy and operational plans?

Secretary DANIELS. I would say they were plans of policy to be carried out in operations; but the detailed plans will be shown you by Admiral Badger.

The CHAIRMAN. Very well; then, you say on February 1 there was a detailed plan in the Office of Operations, and that can not be made public?

Secretary DANIELS. There was a detailed plan made by the General Board for a war against Germany or any power in the Atlantic Ocean.

The CHAIRMAN. Yes; but specifically against Germany? I ask you that.

Secretary DANIELS. The plans they made, Mr. Chairman, were of two characters; a plan for war in the Atlantic, a plan for war in the

Pacific; and those plans would operate against any nation in the Atlantic or the Pacific.

The CHAIRMAN. That would cover the whole world, would it?

Secretary DANIELS. It would cover any power that was big enough to fight us.

The CHAIRMAN. When you speak of the Atlantic, you mean that would cover the North Sea and all waters on the coast of Europe, would it?

Secretary DANIELS. It would cover a plan for a war with any nation big enough to fight us.

The CHAIRMAN. And it would cover those waters to which I referred, would it not?

Secretary DANIELS. I will let Admiral Badger go into that.

The CHAIRMAN. But I want to know now just what you had. Now, you said you had this plan in the General Board at that time?

Secretary DANIELS. I said we had plans in the General Board for war with any nation in the Atlantic.

The CHAIRMAN. And you have specifically included Germany in that?

Secretary DANIELS. Or in the Pacific.

The CHAIRMAN. But you have specifically included Germany. Therefore, the General Board had on February 1 that plan including a war with Germany?

Secretary DANIELS. They had plans for including war with Germany.

The CHAIRMAN. They had them worked out for a war with Germany?

Secretary DANIELS. They had the plans for including war with any and every nation.

The CHAIRMAN. What was the plan of the General Board between February 1 and April 6, 1917, so that we can have the plan worked out just as it was on April 6? You do not need to read the plans. They have already been put in the record. You can just give me the names, and I will add them to what we already have.

Secretary DANIELS. March 20, 1917, you will find here——

The CHAIRMAN. Were there not any before that?

Secretary DANIELS. There was, February——

The CHAIRMAN. You have already stated there was one February 4.

Secretary DANIELS. February 4.

The CHAIRMAN. Then you will include that with the other plan that you had, would you, as a part of it?

Secretary DANIELS. I am not certain about the date of the plan. There is a plan here of March 20, and there is a letter here.

The CHAIRMAN. The plan of March 20 dealing with what? The heading will probably give it. I would rather have them in chronological order, and if there were any before that I would like them first, and the others in order.

Secretary DANIELS. I have not the date. I have here Admiral Badger's testimony in which he gives March 20, 1917, and I have here a letter.

The CHAIRMAN. I think you gather from me what I want. The next time you come before us, will you have a schedule made out

showing exactly what plans there were in existence at the time of the war, and when they were adopted?

Secretary DANIELS. I will have Admiral Badger give you the information confidentially.

The CHAIRMAN. No; it is not confidential. These matters have all been put in the record. The only one that is confidential is the so-called "Black plan," unless I am mistaken.

Secretary DANIELS. All the plans are confidential, referred to by Operations.

The CHAIRMAN. But these plans have been put in the record.

Secretary DANIELS. All the plans in the record are here.

The CHAIRMAN. And I want a schedule made up showing just how those apply to the base plan, so that anyone can tell just what plans we had on April 6, 1917, a matter which I have not been able to find out yet.

Secretary DANIELS. Well, it is very hard if Admiral Badger has not been able to give you all the facts, because he goes into it very fully.

The CHAIRMAN. Well, you are the responsible head of the department, and I presume are responsible for it.

Secretary DANIELS. Absolutely; but in the matter of plans, you must understand, Mr. Chairman, and in the matter of plans for war, there are two agencies to which are committed the technical plans of the Navy—the General Board and Operations.

The CHAIRMAN. Very well, then; I want you in your schedule to give just which goes with each department.

Secretary DANIELS. You have it all here.

The CHAIRMAN. Yes; but I want you to work out another one so that we will have it perfectly clear to us. We have not got it clear yet.

Secretary DANIELS. If you will write down what you desire, I shall be very glad to furnish it.

In the meantime, while we are on the matter of plans, I wish to call attention on pages 3051 and 3052 of the hearings to the testimony of Capt. Pratt, in which he told you that he himself, as the war progressed, worked out something like 30 different plans.

The CHAIRMAN. Memoranda?

Secretary DANIELS. Plans.

The CHAIRMAN. I think he called them memoranda.

Secretary DANIELS. I do not know; he may have called them that, but they were worked out. Capt. Pratt worked the plans out in the line prescribed by the Naval War College, and if you will go over them carefully, you will see that all of them are the specific and technical methods of the War College—that is, first, forces involved; second, information; third, men; fourth, logistics; fifth, estimate of situation; and, sixth, decision.

The CHAIRMAN. What page is this?

Secretary DANIELS. If you will look on pages 3001 and 3002, and continuing.

The CHAIRMAN. Where was that list made that you just read—what page?

Secretary DANIELS. That is not there at all. This is my testimony. I am telling you these plans were worked out by Capt. Pratt and were

War College plans, and those methods that are in existence with all War College men, and on this page you will see Capt. Pratt says:

I will now proceed to the next phase in the testimony, which is the consideration of our plans in preparation for entry into the war, and during such time as I was a member of the small planning section which we had in the Office of Operations. To start in the very beginning, it is necessary to understand what a plan is, and the difference between base plans and operating plans.

Thus far in the testimony that I have seen there has been drawn no marked line of distinction between these two separate thoughts. It is the province of the General Board, and the province of any board who prepare a preliminary plan to outline a plan of preparation. That takes in the activities of every bureau. It sets us in a position so that when war is to be declared we enter the war with all of our basic industries, as far as we can so do it, and at least all of our naval forces, prepared to commit themselves to a first operation; and also the general scheme, that is the broad strategy of the situation, in so far as it is possible to do so must be outlined in this preliminary plan. The movement in a preliminary plan should not be committed beyond its conception of grand strategy, and the first movement in which the forces may be engaged. To do anything else is to commit an error, because it commits your commander in the field, or whoever may be the commander detailed to handle local operations, possibly to a movement to which he can not adjust himself well. Therefore a distinction must be drawn, as I said before, between the base plan which it is the province of the board to draw and the more detailed plans of operations, which must continually adjust themselves to local conditions as they occur; and also I wish at this time to make a comment upon Admiral Fiske's interpretation of what a general plan must be.

If we were to accept in tota all that Admiral Fiske has stated about a general plan, and the ability to put your hand in a drawer and pull out a plan which at once throws us into war, that is at once to accept the proposition that we are a military Nation, and having a man like von Moltke, he can put his hand in a drawer and commit himself to a movement at once, because that means that the aggressive nation can always take the initiative.

A nation on the defense has got to adjust itself to the initial movement that enemy plans against it, and that is why here must be a distinction made between the general plan, as Admiral Fiske has outlined it, and a general plan which a nation like the United States must make in order to prepare itself for war. There is a vast difference in the conception of the two ideas, and in the execution.

I submit herewith a list of plans of preparation.

And Capt. Pratt gives you here a very able technical, fine statement of the proposition he lays down, and you will observe on February 10, 1917, a letter which I wrote to the General Board:

Subject: Solution of problem.

The department desires the General Board—

now this is written by the Secretary of the Navy February 10, 1917.

The department desires the General Board to consider the following problem and submit its solution as soon as practicable.

General situation: Conditions as at present except that war with Germany is declared.

Special situation: The Allies do not desire our battleship force at present.

Required: Naval estimate of the situation.

1. As to the grand strategy demanded by the situation.
2. As to disposition of battleship force.
3. As to method of assisting in maintaining communications with Europe including scheme for cooperation with allies.

February 10, 1917, written by me.

The CHAIRMAN. That was your letter to the board?

Secretary DANIELS. To the General Board.

4. As to methods of driving submarine from the sea. Assume: Mobilization of all naval vessels and possibility of mobilizing merchant vessels as required.

That was signed February 10.

The CHAIRMAN. And what was done in reply to that letter?

Secretary DANIELS. Admiral Badger forwarded to operations a plan in accordance with that.

The CHAIRMAN. Have you that plan there?

Secretary DANIELS. I have not.

The CHAIRMAN. That is the plan that was lost, was it not?

Secretary DANIELS. That is the plan Admiral Badger was not able to find—he or Capt. Pratt.

The CHAIRMAN. So it was not used in the war as far as you know?

Secretary DANIELS. Capt. Pratt testified, if I remember correctly, that it was in operations, and I am not very clear about what his statement was, because he thought it was in operations. I have no doubt it was fully used and carried out.

The CHAIRMAN. Well, on page 3837 Capt. Pratt states that was afterwards lost and he did not see it.

Secretary DANIELS. Did he? I have forgotten about that. Well, at that time, Mr. Chairman, Capt. Volney Chase was the assistant for Operations and, as I said to you in my direct testimony, it is a matter of great regret on all lines that Capt. Chase gave his life in the first three months of the war by his strenuous services in Operations, and that plan was undoubtedly in the possession of Capt. Chase and was not able to be found after he died.

The CHAIRMAN. Well, Mr. Secretary, in view of the fact that from February 1 to April 1 Capt. Pratt was in the planning section of Operations and supposed to be working on plans and, therefore, would naturally have any plans that were there available for his use, would he probably not have seen that plan if it had been in use?

Secretary DANIELS. If he testified he did not see it, of course, it was correct.

The CHAIRMAN. That appears in the testimony to which I have referred.

Secretary DANIELS. But Capt. Chase was in charge of carrying out the plans. Capt. Pratt at that time was charged with working in the planning section. If you look on page 3146 of Capt. Pratt's testimony, you will see he says:

The next plan, which I have marked 7, was also before the war. It is as follows (pp. 3146-47; pp. 3148-49).

The CHAIRMAN. What date was this?

Secretary DANIELS. Capt. Pratt says before the war. He does not—

The CHAIRMAN. Are you running over new plans you are going to put in this statement I have asked you for?

Secretary DANIELS. I am referring to the plans that were made for use in the war.

The CHAIRMAN. Of course all of those will be grouped into one plan so we can look at it as one comprehensive plan.

Secretary DANIELS. I shall give you the information as to plans of the General Board and also plans for Operations.

The CHAIRMAN. Just what, in your mind, constitutes a plan, Mr. Secretary—a memorandum that has been agreed to or a memorandum that has simply been written or handed in, or what?

Secretary DANIELS. In Operations, after the war was on and conditions were changing, Operations changed conditions—the General Board laid down their large general plans.

The CHAIRMAN. This was after the war?

Secretary DANIELS. What did you say?

The CHAIRMAN. After the war commenced?

Secretary DANIELS. I think they did then, but Capt. Pratt, as assistant of Operations, says he made 30 plans, and he knows these other plans were approved, because he himself carried them out.

The CHAIRMAN. Certain ones he himself carried out?

Secretary DANIELS. Certain ones he himself carried out.

The CHAIRMAN. Is that what you mean by a department plan, that a man wrote down a memorandum and carried it out and nobody else saw it?

Secretary DANIELS. I should say any plan that Capt. Pratt wrote that was approved by the Chief of Operations, whether it was signed or not signed, was a plan.

The CHAIRMAN. Whether it was what?

Secretary DANIELS. Whether there was a signature or not.

The CHAIRMAN. How could you tell whether it was approved or not?

Secretary DANIELS. After the war began the Operations worked like this [slapping the hands]. Capt. Pratt made from day to day plans for meeting this and that emergency. He did not stop to write all around about it. He made the plan and he carried it out, and he has given in his testimony the 30 different plans he made out himself.

The CHAIRMAN. What I want is the plan we had before the war.

Secretary DANIELS. I told you he had typical plans, and Admiral Badger will give you all the operations.

The CHAIRMAN. And you will give a detailed statement when you come on next?

Secretary DANIELS. I will give the statement from Admiral Badger.

The CHAIRMAN. I want you to look over it and approve of it, so it will go in as your reply.

Secretary DANIELS. Certainly I will look over it.

The CHAIRMAN. Let me read you what Capt. Pratt says about plans, page 3835 of the testimony:

The CHAIRMAN. When you entered the planning section of the Office of Operations what general plan for naval warfare existed in the department?

Capt. PRATT. That I can not tell you, sir. I knew that there was a general plan in the General Board. From my studies of the general situation, made entirely independently, I had some idea of the situation. I had thought of it a great deal, had studied it, and then had come to the conclusion that Germany would not make the initial break until 1920, unless she were forced to do it by economic conditions.

I did not see the General Board's plan because it was a very general one. I realized, however, that whatever plans and conditions Operations would be forced to adopt would have to be made largely upon the various situations as they arose. A study of the original base plan would not have availed me so much as it would probably the bureau chiefs, because a general plan such as the General Board would prepare is very basic in character. It goes into those preparations which require money and material and must be prepared some time ahead.

The conditions which actually confronted us in the early part of February were quite different from those which we would have worked under in working

under the basic plan, because it is my impression—I do not know—that that basic plan was conceived with the idea that we might be forced to compete with Germany alone. We called it "black." That is the technical name we speak of.

The CHAIRMAN. I think some of the witnesses have testified that the idea of a basic plan was to have a general plan which from time to time was added to, and which was always viewed as the basic plan of the department.

Capt. PRATT. Yes.

The CHAIRMAN. Now, Capt. Pratt, you say you do not know—you did not see any such plan when you went into the department. Did you at any subsequent time run across, in the course of your duty, any such plan; that is, the basic plan that the General Board developed up to date?

Capt. PRATT. Well no; I do not think I needed it—

The CHAIRMAN. I know, but I want an answer to my question.

Capt. PRATT. No, sir; I did not. But I will just explain a little further. A base plan is not an operating plan.

Except for the first projected movement there is quite a line of demarkation drawn, or should be drawn, between this basic plan and the operating plan. The base plan makes a strategic review of the situation as they see it at the day the plan is laid down, and the additions that are placed into this plan are the additions which should be placed as the ideas change.

The CHAIRMAN. You have explained that very clearly in your testimony heretofore.

Capt. PRATT. Might I also put it in here, in order that I might not make any confusing answer. I want to state the thing as clearly as possible, if you do not object, sir.

The CHAIRMAN. Very well.

Capt. PRATT. So that any base plan which would contemplate projecting operations beyond the first movement, that basic plan must be absolutely sound in its strategic conception. If it is not, everything else goes wrong; and the leaders in the department and the leaders in the field are committed to a false strategy which no amount of brilliant tactics will ever overcome. That is, to my mind, my idea of the fault with the Germans' operations entirely, from base.

Therefore the work I had to do was to take into consideration the situation as it existed, the German submarine menace, which broke upon us very suddenly, and therefore it consisted in a series of moves to meet that situation, a series of plan moves, we will say.

The CHAIRMAN. Were there any definite plans in existence when you went into the Office of Operations, drawn up to meet the kind of warfare in which the Navy might be engaged?

Capt. PRATT. The one that I told you of, which was the one of February 10.

The CHAIRMAN. Which was afterwards lost?

Capt. PRATT. Which was afterwards lost; and I did not see it.

The CHAIRMAN. That was not a general basic plan, then?

Capt. PRATT. No.

The CHAIRMAN. It was an operational plan, was it?

Capt. PRATT. No; it was intended to modify the original base plan of the General Board to meet the situation that had arisen. But let me explain just a little bit further about that. Sometimes men who work a great deal on these particular subjects are like a little band of brothers united together in thoughts and in their studies, so that in a way they speak a common language. We were very fortunate in having in the plans section at that time Capt. Chase, who, although he was an administrator and was the aid for Operations, really was our guiding and directing head—

Secretary DANIELS. Read that again.

The CHAIRMAN (reading):

We were very fortunate in having in the plans section at that time Capt. Chase, who, although he was an administrator and was the aid for Operations, really was our guiding and directing head.

Secretary DANIELS. That is what I told you.

The CHAIRMAN (reading):

And associated with him, and with me, were Capt. Schofield and Capt. Scott. I was the third man. We had all been students of the Naval War College, as Admiral Sims was also; and so, in talking things over we had rather a definite idea of what we thought should be done.

The CHAIRMAN. You say, then, that the plan of February 10 is the only one you recollect which was drawn up to meet the plan of warfare in which the Navy might be engaged, and that was lost?

Now, did you make any effort to prepare plans for that purpose?

Capt. PRATT. Yes, sir.

The CHAIRMAN. I think your testimony shows that you did.

Capt. PRATT. Yes, sir; I think most of those that I submitted I wrote myself.

The CHAIRMAN. Those were definite plans?

Capt. PRATT. It is very difficult, sir, to quite draw the line where policy melts into plan and where plan passes from its general aspect into definite action. Those plans that I outlined looked behind, looked at the time we were in, and tried to look ahead; and a great many of them passed from the atmosphere of policy into definite action.

Secretary DANIELS. Mr. Chairman, I want to call your attention—

The CHAIRMAN. Now, I want to put in one or two other statements which were made on that subject.

Secretary DANIELS. All right.

The CHAIRMAN. Here is Capt. Palmer:

The CHAIRMAN. Now, captain, can you tell me what plan of operations was given you by the department, or by the Chief of Naval Operations, on which to base, in logical manner, your general future assignment of personnel to different forces?

Capt. PALMER. I did not quite understand the question.

The CHAIRMAN. What plan of operations, if any, was given to you by the department or the Chief of Naval Operations on which to base your assignments, your general future assignments of personnel, in a logical manner, to different forces?

Capt. PALMER. Oh, well, we had no plan. We had only a mobilization sheet, which was a sheet stating the vessels which would be required for mobilization. That was gotten up by the Office of Naval Operations; but we had no definite plan on which to base future assignments. I could not go on the plan that we were going to go into a battleship warfare or a submarine warfare, or anything of the kind. I could not look far enough ahead and specialize on those people both as regards numbers and duties; but I did receive from Operations from time to time—they said "We will have to take away 10 ships here probably within a month," or the next day it might be, "We must have trawlers"; probably had to have 20 or 40 trawlers. And another time it would be, "We are going to undertake this mine-force business now, and we want to have the vessels ready on a certain date." Of course the mine force is a very large organization, and the transport force was another that was a very large organization; the ships that we required to take over the Army, and later to bring the Army back. I must say they were a fine lot, too. The Navy takes off its hat to the Army on the kind of men they sent over there, and the way they looked, and the way they acted. They were splendid. We had various calls of that kind from time to time, and in each case, when I would say, "When are these to be ready," they would say, "Oh, we want them now, or just as soon as you can possibly get them; in fact, in a month or two months." Just ordinarily the training of any people, enrolling them, and so forth, and getting barracks ready for them, nothing can be done in two months to speak of.

The CHAIRMAN. But was there any general plan in the department under which all the bureaus could cooperate together, and which was to be followed out throughout?

Capt. PALMER. Not that I know of, sir. Not in my bureau. We did not get anything of that kind. In fact, we had simply that thing from the General Board which said that we should be prepared to furnish in a week after the order the personnel. Well, that was not any plan. I understood though that a plan was being prepared in Operations, and I went up and asked for it several times—that is, an estimate of the situation and what we were going to do, because it was very valuable for me to have such a plan, so that I could place the personnel in a logical way, and endeavor to train them; but I was told that there was a plan in process; that they were getting one at that

time. That was just before the war. And I heard again that it was being drawn up during the first months of the war. But I did not get that plan. I do not know whether it was actually gotten out or not; but I understood that the thing that affected personnel was some letter which I think was mentioned in Capt. Laning's hearing yesterday; some letter about personnel which showed the priorities of ships in July or August; that is, which ships were to have the call for personnel; that is, whether they were to be battleships or destroyers.

The CHAIRMAN. Did you get any orders about priority of ships?

Capt. PALMER. Not until that time.

The CHAIRMAN. What time was that?

Capt. PALMER. I do not remember what date that was. It was July or August.

The CHAIRMAN. 1918?

Capt. PALMER. No, sir; 1917.

The CHAIRMAN. 1917.

Capt. PALMER. Yes, sir. But of course that was not the kind of plan we could go on in personnel. We had already established our own priorities. Since I found that there was not any plan such as I expected them to have; that is, I had been led to believe from the War College course up there—which I have not had the opportunity to take yet, but I had been led to believe—that each thing would generally have a plan drawn up for the particular situation which existed at the time, and say what you are to do, "Each force is to prepare this and prepare that"; and so I thought there would be such a plan. But when I found that there was not, and we could not get a definite order of the kind, I went ahead and made my plan. To be sure, that is not a very good way to do, because I did not have the information which should have been had before you tried to work out any plan. I established my own priorities on vessels; but that really was a very small part of it, etc.

Secretary DANIELS. You were reading Capt. Palmer. Have you finished?

The CHAIRMAN. I was reading Capt. Palmer's testimony; yes.

Secretary DANIELS. Have you finished what he said?

The CHAIRMAN. No.

In fact, we established the priorities which the department got out in that letter, later on, of July and August. But I remember one particular point was I wanted to know enough about the war to decide whether I could make use of personnel on battleships to train other personnel. Of course we were short on personnel right at the start, and I asked Operations if they could give me any probable date before which our battleships would not be actively required in the war area for actual fighting, and I was told they could not.

Then I asked, "Can you give me six months?" "No." Just in general, they did not feel justified in saying, "Well, you can go on the plan that they will not go in action for six months, or one month." There was the cry always to have the battleships ready for anything; and of course if they were to be ready for anything, they could not of course take people off of them to train others; so I worked out in my own bureau a scheme for making use of the officers that we had, and in order to do that I had to establish some definite propositions, one of which was I made the assumption that the battleships of the active fleet would not be required to take active part in the actual operations of the war zone within six months, at least. Of course that was a decision which was made without adequate information. It just happened that they were not called in that time; but I had to adopt something, so that I took that plan and then decided to take off six officers from the 36 or 34 out of the actual battleships, and then put them in to train other people for the enormous expansion in the other activities. In fact, the battleships were training people all the time. Every ship afloat was a training ship, including the destroyers afterwards on the other side. But this thing of taking 10 officers off the battleships when they considered that they did not have enough officers, was a very important step, and I would not have been able to do it at all if I had not communicated with Admiral Mayo and gotten his cooperation. He took a remarkable view of the situation, and I think it shows just what type of man he is.

I explained to him what I thought were the probable duties and the great expansion we needed for forces everywhere, and he would have been perfectly

justified in saying, "Well, I am in command of the battleships of the Atlantic Fleet, and we are short of personnel, and I am going to keep them"; and I believe if he had taken that stand I could not have gotten them. But he sized up the whole situation from a broad viewpoint, and he said, "I hate to do it, but I think it is not best for me, for my battleships, but it is best for the way we have got to win this war." So that, off came the officers, one at a time, and the captains rightfully objected. I think I would have made a great deal more objection than any one of them did; and they did object, and persisted in their objections, but at the same time they went to the job. They said, "Well, it is in order, and we will deliver the goods"; and they did. Of course, that was a step that I had to take, on the assumption that we would not have them in the war for six months. If they had gone to war in two months—I mean if they had not gone to war, but had gone over on the other side and been put in battle in two months—my assumption would have been wrong, and I would then have gotten what I deserved.

The CHAIRMAN. Then you do not know of any definite plan of procedure in the conduct of this particular war, worked out and given to you, on which your bureau could make complete preparations to proceed logically with the personnel?

Capt. PALMER. I do not.

The CHAIRMAN. That is all.

That is the Chief of the Bureau of Navigation during the war.

Secretary DANIELS. My answer to that, Mr. Chairman, is—

The CHAIRMAN. Wait a minute. I have another to put in.

Secretary DANIELS. Is it from Palmer?

The CHAIRMAN. No; Capt. Laning.

Secretary DANIELS. I submit as you read a statement from one officer that you put into my cross-examination that I shall be permitted—

The CHAIRMAN. I am perfectly ready to have—

Secretary DANIELS (continuing). To make a statement.

The CHAIRMAN. I am perfectly ready to have you make any statement about the matter I have dealt with, but I simply want you to know I have some other matter to put in at the same time.

Secretary DANIELS. If Capt. Palmer did not have any plan, and a plan requiring the Bureau of Navigation to do certain important things, he was the only chief of a bureau that did not have it from the General Board, which had required in 1915 every bureau chief to carry out certain policies and be ready for war. Capt. Palmer testified in this record before your committee that there never was a time from the beginning of the war to the end when there was need for men and officers for a ship that he did not have the men and officers. The reports of Capt. Palmer—

The CHAIRMAN. Mr. Secretary, will you give me the place in the record where that can be found? That has been referred to several times, and I would like to find it in the record.

Secretary DANIELS. Yes; I will give that. Never any time in case of war when a ship was ready that we did not have the officers and the men. Now, Capt. Palmer estimated—when you are speaking about estimates—he estimated it would take 93,000 men to man the Navy in the war before it began. The General Board in March, 1917, when Congress was in recess, recommended to me it would take 150,000 men. We obtained over 500,000 men.

Mr. Chairman, there is a great deal of bunk about this plan business. The whole country has read about the fiction that when the Franco-Prussian War began von Moltke was asleep and he turned over in his bed and said "Look in a certain drawer and find the plan

and run the war," and that has persisted with military men and civilians ever since. It is about the biggest canard ever exploded. The Germans had a plan this last war "Made in Germany," the most perfect plan, in accordance with Prussian militarism, that could have been made, and it worked very well until the Battle of the Marne, and when that plan was exploded there they never found themselves again.

Men who make a fetich of a plan lose initiative, they lose resources, they lose victory.

General plans must be made in advance. Everything possible must be studied out. There is not a wise military leader in the world that supposes he is going to run a war after it is started upon plans worked out before.

The French ruined the German plan at the Marne.

You must have plans that are progressive. They change with changing conditions. Nine-tenths of the strategists who lay down plans presuppose that the enemy is going to come in a certain place and attack them, and that is a perfect plan for that campaign. But, as a matter of fact, the enemy does not always come where you expect him, and your plan is in the scrap heap.

Now, Capt. Pratt showed that very fully when he told you he made 30 different plans himself, looking before and looking all the time for the changing conditions. And the only military leader who ever wins a victory is the man who studies the plans before the war, changes them, makes them up to date for changed conditions.

Now, as to the plans for personnel, when Capt. Palmer made his estimate of 93,000 and the General Board made their estimate of 100,000, and I recommended to the Naval Committee 97,000, there is not an officer in the Navy who did not think that was enough men. In March the General Board thought 150,00 ought to be had, and I asked Congress for them. We did not then expect to man the merchant ships; we did not expect to man all ships, and do a hundred things we never did, and for anybody to sit down in March and tell the Bureau of Navigation that six months hence you have got to have men for this or that, when changing conditions of war brought new ships and new methods and new lines, was an impossibility.

Let us have wisdom about plans. Let us have great men, like Badger, to make plans, general plans and specific plans for certain wars, but do not let us ever fool ourselves. Any set of men that ever lived, even Von Moltke, could not do it. Hindenburg failed and Ludendorff failed. There is not a military man who ever lived who can sit down before the war and draw up all the plans and say do this and do that.

So that in navigation we had plans, absolutely the best plans that were possible with the contingencies. Our first plan was this, to ask Congress for enough men. In 1914 I asked Congress for a Naval Reserve. The Secretaries had been asking for it for 10 years and did not get it. Congress gave it to us. In the act of 1916 we changed that Naval Reserve, and that Naval Reserve saved our lives.

In January, 1917, although we had had an increase authorized by Congress from fifty-odd thousand to seventy-odd thousand, with 20,000 additional for emergency, when January 1 came we were 20,000 men behind, and I gave orders to Navigation to enlist the

regulars to the full. We enlisted them all the way through, and there never was a minute when the plan of Navigation did not have enough men for the job they had to do, and the Navy cooperated in every way, so that we never failed at any time to have men for any job, and the big jobs that were put upon us.

The CHAIRMAN. I have just read you, Mr. Secretary, the specific objections raised by the Chief of the Bureau of Navigation because he did not have——

Secretary DANIELS. And I am telling you the Chief of the Bureau of Navigation, if he did not have the plans——

The CHAIRMAN. Did not have anything.

Secretary DANIELS. Well, he had the General Board plans.

The CHAIRMAN. Which were very general and had nothing to do with this matter.

Secretary DANIELS. But he has these directions; he had the directions to enlist 97,000 men.

The CHAIRMAN. He states here that he had directions to get the men ready a week after they were called.

Secretary DANIELS. Wait until I get through. He had instructions to enroll 97,000 men from August until January and very few were enlisted. He had instructions to enroll every man possible and thousands were enrolled. Now, what did he complain of? That somebody did not sit down, when we had no idea of manning the merchant ships, when we had never thought of armed guards, when no nation on earth had planned the great things the Navy did—that somebody did not sit down and write a paper saying, six months hence you do this, and four months hence you do this, and five months hence you do that, when the war was a continually changing war? The answer is we had the plans, we had the men, we got the officers. There never was a ship from——

The CHAIRMAN. I do not see how you can say you had the plans when the Chief of Bureau says you did not have the plans.

Secretary DANIELS. I say the Chief of the Bureau's memory is not very good.

The CHAIRMAN. He knew about his own bureau.

Secretary DANIELS. His memory, when he was before the committee, showed he had a better forgettery than a memory.

The CHAIRMAN. You say that about his general statement?

Secretary DANIELS. A better forgettery.

The CHAIRMAN. Perhaps it would be better to specify why.

Secretary DANIELS. In my direct testimony I have.

The CHAIRMAN. You have specified perhaps one or two cases.

Secretary DANIELS. All right. He said he had no plan. The General Board sent a plan to every bureau. He told you in his testimony that I directed him to stop enrolling reserves in January.

The CHAIRMAN. He says:

We have simply that thing from the General Board, which says that we be prepared to furnish within a week after the order, the personnel.

Secretary DANIELS. He said "only that thing." Now, Mr. Chairman, I do not think it is very proper for an officer of the Navy to refer to a plan which the General Board worked out with great care as a "thing." It was a very definite and very able and very comprehensive and statesmanlike statement.

The CHAIRMAN. I do not think that is a very serious matter, Mr. Secretary.

Secretary DANIELS. I do not think it is very serious either, but you seem to think——

The CHAIRMAN. No; I am speaking about where——

Secretary DANIELS. You seem to be stressing the fact that the Chief of Navigation did not have any plans.

The CHAIRMAN. No plans?

Secretary DANIELS. Well, I say he did have plans but that he has forgotten them.

The CHAIRMAN. Except the General War Board's plan, which was of no particular value, apparently.

Secretary DANIELS. If he says it is of no particular value, that is his opinion.

The CHAIRMAN. I am saying that. I can not find from the testimony that it was of any great value.

Secretary DANIELS. Let me read you what Admiral Badger says, page 2621:

The gist of the criticism of the operations of the Navy Department and the Navy now under investigation is contained in the charges of unpreparedness to enter the war; absence of war plans or policies at the commencement of the war; vacillating and hand-to-mouth policies and plans after war was declared resulting in extending the duration of the war and thereby enormously increasing the allied war losses in lives, ocean tonnage, and money.

Now, Admiral Badger says:

To each and all of these I enter emphatic denial.

The CHAIRMAN. Would you not think the testimony of the Chief of the Bureau of Navigation would be of some value in matters connected with his bureau?

Secretary DANIELS. Yes; undoubtedly; but he is——

The CHAIRMAN. And he has shown the difficulties that he encountered because he did not have a plan.

Secretary DANIELS. Why, Mr. Chairman, there was not a minute from April 6 to November 10 when there were not difficulties everywhere, when there were not obstacles everywhere, where every man was not working under steam and pressure. Of course, he had difficulties. Of course, everybody had difficulties. But there are two kinds of officers: One officer is one where he sees an obstacle says: What is an obstacle? It is something to overcome.

The CHAIRMAN. That is exactly what Capt. Palmer did.

Secretary DANIELS. There were obstacles. They were overcome. What is the wisdom of saying there were obstacles?

The CHAIRMAN. So that the next time we shall have a proper plan.

Secretary DANIELS. Well, we had proper plans.

The CHAIRMAN. Not according to the testimony of the officers who were immediately interested.

Secretary DANIELS. Admiral Badger tells you so; Capt. Pratt tells you so; the evidence discloses it. But the question is: What is a plan?

The CHAIRMAN. Yes; that is what we have been trying to find out for some time.

Secretary DANIELS. I think, Mr. Chairman, if you will allow me to say so, that you and many of us who are civilians think that a plan is a fetich; that some men think they can come in a room and sit

down and take a pencil and a map and before war begins have drawn out exactly where it is going to be fought.

Take the Spanish-American War. When Admiral Dewey sailed away to Manila every ranking officer of the Navy nearly was anxious to get down to Cuba, wanting to get in the war zone, and all the maps and all the plans were going to have the fight in the Caribbean, and the world woke up to see the war zone was at Manila. And not one man in a thousand had thought about that being the war zone.

The CHAIRMAN. There was very little warning on that occasion. In this case, however, we had three years of warning.

Secretary DANIELS. And we had prepared for it.

The CHAIRMAN. That is what I want to find out. I do not believe you were prepared as far as personnel is concerned—as far as the plans for operating personnel are concerned.

Secretary DANIELS. When I tell you that there never was a minute during the whole war, with a demand five times as great as Capt. Palmer, the General Board, Operations, the Secretary, the Congress, ever dreamed of, and that we got these men, and there never was a ship ready, merchant ship, cargo ship, battleship, submarine, or destroyer, that we did not have the men for them, why it is a great—

The CHAIRMAN. How did you get the men? Capt. Palmer says here, "I had to adopt something, so that I took that plan and then decided to take off 6 officers from the 36 or 34 out of the actual battleships," and I understand they were already undermanned with officers, and he had to take them from one ship and transfer them to another. If a battleship had 1,000 men on it you could probably get enough men for 10 destroyers, but what would happen to the battleship?

Secretary DANIELS. We would put other men on it. We did this—and there was no other way to do it—we would take a ship that ought to have 1,000 men and we would put a certain number of men, experienced and trained men, on there, and we would take younger men and newer recruits and put them on there, and you would be astounded how fast they learned, how splendid they were.

The CHAIRMAN. But in the meanwhile the personnel of the battleship would suffer greatly by taking them off, just as Admiral Mayo testified happened to the fleet?

Secretary DANIELS. Well, of course, temporarily; but what would you have done? I asked the Congress for every man that the General Board and Operations and Navigation said we needed. We tried our best from August with a great recruiting campaign—from August 15 up to January—and we lacked 20,000 men of getting them. You can not compel a man to join the Navy in peace.

The CHAIRMAN. But if you had plans for personnel and had told the Chief of Navigation about it beforehand he could have made his arrangements for taking those men from places where they would not be greatly needed.

Secretary DANIELS. I told him when he first came into office:

I have just got a bill from Congress giving you 77,000 men at once, with 20,000 more in any emergency. Go ahead and enlist them.

What did he do? We opened stations, we sent out, we enlisted—bear this in mind—we enlisted in the Navy in 1915 every man we could get in.

The CHAIRMAN. That may all very well be, but that has nothing to do with the plan.

Secretary DANIELS. What do you say?

The CHAIRMAN. That may all very well be, but that has nothing to do with the plan that I am speaking about.

Secretary DANIELS. Well, my dear sir, the plan—you may have all the plans in the world and if you can not get the men——

The CHAIRMAN. But with properly worked out plans you can utilize the men you have to the best advantage, and Capt. Palmer states he was not informed of what action would be taken so that he could use them in such a way.

Secretary DANIELS. Well, I am telling you that plans were worked out. He was told this: "We wish you would have so many men on certain ships which are going into commission."

Now, to be sure, the refusal of young men to enlist in the Navy before the war gave us a shorter personnel than Congress authorized, but you could not compel them to come in. But from the beginning we had enough men and we trained them very rapidly.

I have very little patience with people who talk about great obstacles. There were great obstacles, but they were overcome, every one of them.

The CHAIRMAN. Now, Capt. Laning introduced a plan on March 13 to deal with submarines. On page 958 he states:

On or about March 14, 1917, that estimate and outline of plan was handed to Admiral Benson, who, after reading it, directed Capt. V. O. Chase, Capt. W. V. Pratt, and Capt. F. H. Schofield to examine it and draw up a more complete estimate and plan. I was never shown the results of their work, but was several times questioned by them as to certain features of my estimate, and Capt. Pratt told me that their decisions were practically the same that I had reached. Later I was told by Capt. Schofield that they had completed their estimate and plan, and that it had received the approval of Admiral Benson, but that they had been unable to get departmental approval to go ahead with it.

Had the department approved that plan, or even authorized Admiral Benson to go ahead with the plan, which must have been presented about the time war was declared, the various parts of the Navy Department would have been informed as to what their missions were and could have proceeded to carry them out. Without such a plan no one knew what to do. The Bureau of Ordnance not having any definite plan to provide guns and ammunition for, was forced to order them for all kinds of projects whether or not such projects might be feasible in the war as it was necessary to wage it. The Bureau of Supplies and Accounts had no information on which to base their purchase of supplies and was forced to buy not what actually would be needed, but what they guessed they might possibly be called on for. The Bureau of Navigation had no idea of what they should do as to providing personnel. Every bureau and every office was in a similar predicament. Such a plan was equally necessary to those at sea, for without it instructions could not be given them as to how to best direct their efforts. All of these faults would have at once disappeared had there been an approved plan on which the whole Navy could be concentrated.

I do not mean to infer that the Navy Department had no general plans whatsoever for war. As in all navies, we had a more or less well-prepared plan for the conduct of a war along the ordinary lines where all classes of ships are free to operate. What we did not have and what we needed at that time was a plan for waging war against an enemy that used only submarines. That such plans were not prepared long before is not remarkable, for until the Germans used their submarines as they did, no one conceived of such a war. However, at the time we entered the war submarine warfare was an established fact, and its methods were sufficiently well known for us to lay plans to combat it.

And this plan to which I refer was the plan to determine the best plan for utilizing those funds provided by Congress and was not simply a plan about submarines.

Secretary DANIELS. Well, Mr. Chairman, have you finished Laning?

The CHAIRMAN. Yes.

Secretary DANIELS. Well, Capt. Laning, if he made a plan, it is news to me. I suppose a thousand officers made plans. I brought before your committee suggestions of 300 or 400. Capt. Laning never brought any plan to me.

The CHAIRMAN. He brought it to the Chief of Operations.

Secretary DANIELS. I never heard of any plan Capt. Laning made, and with all due deference to Capt. Laning I do not think what he says is true, that if what he said had been adopted, everything would have been all right.

Now let me read you something about Capt. Laning. Capt. Laning, who read you a long and doleful statement of alleged shortcomings, referred to what he called the "personal characteristics" of the Secretary of the Navy. He really complained that I was the real Secretary of the Navy and not a rubber stamp. Hear this commendation of my zeal and determination to full the duties of the office in perilous days when the "God-savers" in the department each had a plan he had evolved and which he believed was the only plan that could win the war:

The personal interest taken by him [the Secretary] in all matters connected with the department absorbed so much of his time that he never had much left to give us on the more important affairs. It was my duty to endeavor to understand "all matters connected with the department."

That is news to everybody, that Capt. Laning's duty was to understand all matters connected with the department.

The CHAIRMAN. What was his position?

Secretary DANIELS. I think at that time he was under Benson; I think third man under Admiral Benson.

The CHAIRMAN. And later Acting Chief of Operations?

Secretary DANIELS. Later Chief of Navigation.

The CHAIRMAN. And never was Acting Chief of Operations?

Secretary DANIELS. He was transferred from Operations to Navigation as officer in charge of detail, and then Capt. Palmer went to sea and he became the Acting Chief of Operations——

The CHAIRMAN. Of Navigation?

Secretary DANIELS. Of Navigation.

It was my duty to endeavor to understand "all matters connected with the department," to support the officers intrusted with important duties, and to direct the policy of the Navy Department and to determine for myself and not leave to a subordinate to fix the naval policy. Capt. Laning thought what he recommended embraced "the more important affairs," but I did not agree with him. For example, he presents copies of letters drafted to the Secretary of the Treasury and the Secretary of War with reference to turning over all the German ships to the Navy Department. He evidently did not know—and I did not have the time to send for him and tell him about the "more important matters" that were engaging my attention—that the best method of utilizing the German ships had been under consideration between Cabinet officers before the letters were prepared for my signature. This was a governmental, not a departmental,

question. It was determined in personal conference by members of the Cabinet and high officers of the Navy and high officers of other departments and my recommendation made in person was adopted.

It is the height of vanity for a subordinate in a bureau to suppose the Secretary of the Navy, who was giving most of his time to inter-departmental plans, to pause to send for that officer and explain why he refused to adopt the policy of signing letters to other Cabinet officials when he was able to secure what was for the good of all by personal conferences. Not for a moment during the World War, though it was suggested now and then by a subordinate officer, was I guilty of the offense of "passing the buck." In naval circles that means to fix the record so as to show that you recommend everything possible and put the responsibility upon some other person or department. I recognized that other departments of Government were vitally concerned with the question of transporting troops to Europe, that whole-hearted teamwork was required, and that this could not be promoted by "passing the buck." I should have despised myself if I had at any time pursued such a course.

Capt. Laning also devotes much time in the vain attempt to prove that I exercised great delay in the great destroyer program. From the passage of the three-year program, in 1916, every shipbuilding plant in America that could construct a destroyer was busy, and in cooperation with the responsible officers I pressed through as early as it was possible to make new plants the great destroyer-building program. Out of the first emergency fund I placed orders for every destroyer every plant in America could undertake and then called upon Congress to build other great plants. This criticism, without the shadow of foundation, falls to the ground when all the facts are known, just as do all others.

Only one more reference is necessary to refute Capt. Laning's indictment that I did not sign every letter suggested to me on the very moment of its presentation. He furnished your committee with a statement which might convey the impression that my delay materially aided in losing the war because I did not immediately place orders for torpedoes and shells when the Bureau of Ordnance pointed out their need. Even in war times I had some regard for the prices that the Navy should pay for supplies and munitions; and except in case of great emergency before Congress gave authority to place "Navy orders," was diligent to secure a dollar's worth of naval efficiency for the expenditure of a dollar of public money. I did hold up the recommendation of the Bureau of Ordnance for torpedoes until I could see the manufacturers, and saved over \$5,000,000 by this negotiation in the purchase of torpedoes. I did not place the orders for shells until conferences with manufacturers, and saved about \$200,000 for shells. These negotiations were conducted jointly by me and the Chief of the Bureau of Ordnance, and nobody can say that the action taken affected the war by a hair's breadth, that we ever needed one torpedo when did not have hundreds, or that there was ever a need for shells when there was not an abundance.

Now, Mr. Chairman, I call your attention to a letter written by Admiral Palmer on October 10, 1916.

The CHAIRMAN. Does this appear in the record?

Secretary DANIELS. It is a part of my testimony.

The CHAIRMAN. Will you give me the page?

Secretary DANIELS. It is page 9 of my testimony on increase in personnel. I will just read a paragraph from it. I want to show you what Capt. Palmer thought officially as to the need of men in the Navy on October 10, 1916 [reading]:

Appreciation of the immediate needs of the service has been shown to be nation wide, and in the recent naval appropriation bill Congress carried out the wishes of the people by enacting legislation of far-reaching importance. This includes a provision for an immediate "authorized enlisted strength" of 68,700 men and 6,000 apprentice seamen, a total of 74,700. Preparation for the future was not neglected, and the same bill authorized the President, in emergency, to increase the "authorized enlisted strength" to 87,000. It is evident that Congress considered the present needs of the naval service in deciding on this number at this time, as the usual additional allowance of apprentice seamen—6,000—would provide for an actual enlisted strength of the Regular Navy of 93,000.

It is interesting to note that the above figure closely approximates the bureau's preliminary estimate of 93,957, which provides for the number of enlisted men (including average sick allowance) necessary to fill the billets in 1921, the year of completion of almost all of the present program.

He only wanted 93,000 up to 1921, the year almost of the completion of the present program. I will not read all of that. That was his opinion at that time.

The CHAIRMAN. So far as the three-year program was concerned, none of the ships that were provided for in that program were expected to be ready until the end of the three years, were they?

Secretary DANIELS. Mr. Chairman, we built, finished, and put in commission during the war 471 ships.

The CHAIRMAN. Under the three-year program?

Secretary DANIELS. Some of them under the three-year program.

The CHAIRMAN. Yes; but how many under the three-year program?

Secretary DANIELS. I will read you first the number we finished during the war, some of them under the three-year program:

Destroyers, 38; submarines, 10; Eagle boats, 3; subchasers, 408; mine sweepers, 17; motor boats, 471; built and completed and commissioned.

The CHAIRMAN. And how many of these were under the program?

Secretary DANIELS. I think practically all the destroyers, Mr. Chairman.

The CHAIRMAN. Work, I presume, was speeded up on them on account of the war?

Secretary DANIELS. The very day that the three-year program was signed by the President—I will give you the statement here:

Twenty destroyers appropriated for in the act of 1916 were contracted for at once, bids invited, plans and specifications issued, on the day the bill was approved. Fifteen more of the 50 authorized in the three-year program were provided for in the act of March, 1917. They were immediately contracted for.

Under the naval emergency fund appropriated by Congress March 4, 1917, to be expended at the discretion of the President, further orders were placed for 76 destroyers, some of them being contracted for in March and others as early as the contracts could be placed.

The CHAIRMAN. Those had nothing to do with the three-year program.

Secretary DANIELS. They followed that; so that by the middle of August, 1917, there were building or contracted for 111 destroyers.

The act of October 6, 1917, authorized the building of 150 more destroyers, and all of these were contracted for immediately, 70 on

October 9. Think of it! The act passed on October 6. We contracted for 70 on October 9, three days afterwards; for 40 on October 11, and for 40 on October 15. Thus we had contracted for 241 destroyers within six months after the war was declared, in addition to the 20 contracted for in the fall of 1916.

The CHAIRMAN. Do you recall how much we spent on these destroyers?

Secretary DANIELS. I think it was \$350,000,000.

The CHAIRMAN. How many of them did we use in the war?

Secretary DANIELS. I will get you the figures, Mr. Chairman. I have not the figures here.

The CHAIRMAN. Therefore, 20 of them were built under the three-year program, were they not?

Secretary DANIELS. Thirty-eight.

The CHAIRMAN. I thought you said 20.

Secretary DANIELS. Thirty-eight.

The CHAIRMAN. Thirty-eight?

Secretary DANIELS. Thirty-eight.

The CHAIRMAN. And you say Admiral Palmer estimated that he would need 93,000 men. Of course, that had nothing to do with anything that came about beyond the three-year program?

Secretary DANIELS. Well, that is the number of men he thought we would need in 1921.

The CHAIRMAN. When did he make his estimate?

Secretary DANIELS. October 10, 1916.

The CHAIRMAN. So that his estimates were based on the three-year program, which at that time was not expected to be finished for at least two to three years?

Secretary DANIELS. Based on that, and what he thought might possibly be the requirements if we went into war.

The CHAIRMAN. Where do you get that?

Secretary DANIELS. Where do I get that?

The CHAIRMAN. Yes; did he tell you in his estimate? Did he say he would specially provide for what we would need if we went into war?

Secretary DANIELS. Well, Mr. Chairman, the General Board, you know, had called on all the bureaus to be ready for war, and I take it that he had in mind enough men, if we should have such an emergency come. I will look up his letter and see.

The CHAIRMAN. And you say the 38 destroyers under the three-year program were used in the war, do you?

Secretary DANIELS. Thirty-eight.

The CHAIRMAN. They were ready and were used in the war?

Secretary DANIELS. I think that is correct. I will verify that by reference.

The CHAIRMAN. Where were they used? Were they used over in European waters, in the war zone?

Secretary DANIELS. If you will look in Admiral McKean's testimony or Capt. Pratt's testimony, you will see. I do not recall. They were sent wherever the Bureau of Operations thought they were most needed.

Mr. Chairman, you asked me if he had in view anything about the war. He says: "Preparation for the future was not neglected,

and the same bill authorized the President, in emergency," etc. That shows that he had in mind that some emergency might exist.

The CHAIRMAN. And that was what was done, was it not?

Secretary DANIELS. What?

The CHAIRMAN. On March 24 the President called for 93,000 men or 97,000 men, including 6,000 yeomen?

Secretary DANIELS. Yes; on March 24 the President issued his Executive order.

The CHAIRMAN. Therefore Admiral Palmer had called for those in 1916—

Secretary DANIELS. Oh, no.

The CHAIRMAN. Had made his estimates in 1916?

Secretary DANIELS. Wait and let us get the facts straight. In August, 1916, before Admiral Palmer came to the Bureau of Navigation, the Congress, upon my recommendation, authorized an increase to 83,000, with a provision in emergency—

The CHAIRMAN. Seventy-one thousand four hundred, was it not?

Secretary DANIELS. Yes; and adding apprentice seamen and hospital, and so on, it makes 83,000. You never count those. You say 71,000, and the percentage of the others. Under that bill Admiral Palmer, under the Bureau of Navigation, was authorized to have 71,700 places, making with the others eighty-odd thousand that was authorized by Congress.

The CHAIRMAN. Yes.

Secretary DANIELS. In that same bill the President was authorized to add about 20,000 more than that in emergency. And now, on October 10 that was done; that was accomplished; that was settled; that was law. But Admiral Palmer came on—

The CHAIRMAN. No; the emergency call did not come until March 24.

Secretary DANIELS. The emergency call came later; and in October Admiral Palmer recommended that if the Congress would give us 93,000 men that would be sufficient to fill all of our needs up to 1921. He undoubtedly had the same view that the General Board had, and all naval officers, that if we had a naval war the Navy would only man naval ships, not merchant ships, not convoys; that we would not send 50,000 men across the sea on aviation, and things of that kind. I am not criticizing him.

The CHAIRMAN. The fact that the President recommended it as an emergency question four or five months later shows that he took the same view when he made the emergency call, does it not?

Secretary DANIELS. Why, of course, the President called for these men the very minute; even before all the regulars authorized had been enlisted.

The CHAIRMAN. Yes.

Secretary DANIELS. Admiral Palmer, you know, as I said just now, his memory was not very good. He told your committee that the President did not issue this extra call for these men until May.

The CHAIRMAN. That may have been a mistake in the reporting. I do not know.

Secretary DANIELS. It is just a matter of memory. He did not intend to do it. But I told you it was before the President issued his call for these extra men.

The CHAIRMAN. But that has nothing to do with this other matter.

Secretary DANIELS. Nothing at all, except that the President issued the call before we had filled the quota of the extra men.

The CHAIRMAN. What I wanted to find out was whether his recommendation of October, 1916, was not a reasonable recommendation.

Secretary DANIELS. It was a reasonable recommendation.

The CHAIRMAN. And it was the same thing that the President in an emergency called for four or five months later?

Secretary DANIELS. Not at all. Here is the difference: In August, 1916, before Admiral Palmer came to the bureau, the Congress—

The CHAIRMAN. Oh, I understand that.

Secretary DANIELS. Well, let us get it straight. You did not seem to understand it. The Congress authorized a total in emergency of 97,000.

The CHAIRMAN. Yes.

Secretary DANIELS. That was law. All the President had to do was to issue a proclamation to get them, if they would enlist.

The CHAIRMAN. Admiral Palmer indorsed that not as an emergency, but for the Regular Navy.

Secretary DANIELS. October 10, 1916. When Admiral Palmer was required to make his usual estimates to Congress, to the Secretary of the Navy for Congress, taking everything into consideration, he recommended—he says that he recommended—93,000 men. That was in order to enable us to get along until 1921. The General Board then thought 100,000 would be sufficient. Congress had given us 97,000. In March the General Board recommended 150,000. I recommended it to Congress and Congress granted it.

The CHAIRMAN. I have here a list of the destroyers on November 1, 1918. There were at home, 29; Europe, 58. Those were oil burners. Coal burners there were 8 at home and in Europe 12. In Europe both oil burners and coal burners, there were 70.

Secretary DANIELS. Will you let me have those figures, Mr. Chairman? I would like to verify them.

The CHAIRMAN. They are taken from Capt. Pratt's statement [handing paper to the witness].

Secretary DANIELS. Yes; I would like to verify the statement as to numbers.

The CHAIRMAN. Yes. Now, I think we had in the latter months of the summer of 1917 something like 50 destroyers on the other side, did we not?

Secretary DANIELS. What month is that? I have forgotten the number, Mr. Chairman.

The CHAIRMAN. Fifty, during the summer of 1917.

Secretary DANIELS. On April 24, I think it was, 1917, Admiral Sims cabled us that the war council and the British Admiralty agreed that if we would send twenty-odd destroyers over that would defeat the submarines in the critical area and keep them down. We sent 28. I will get the figures about that. I do not carry figures in my head very well.

The CHAIRMAN. But we had substantially 50, or I will not say that we did not have more, on September 1, 1917; and at the close of the war, November 1, 1918, we only had 20 more.

Secretary DANIELS. Yes.

The CHAIRMAN. Now, you say we spent between three and four hundreds of millions of dollars on destroyers during the war, and out

of that we only increased the number that we had available over there by 20?

Secretary DANIELS. Mr. Chairman, up to August, 1916—up to January, 1917—no destroyer had ever been built in the world under 22 months. It generally took 24 months. We built every destroyer at the very top speed that any concern in America could build destroyers, and we built a plant at Squantum and built 104 more destroyers. Now, as to the figures of how many we had there at any given date—

The CHAIRMAN. I want to know what we got out of the three hundred and fifty or four hundred millions of dollars that we spent on destroyers.

Secretary DANIELS. We got them.

The CHAIRMAN. But did we get them during the war?

Secretary DANIELS. We got them as quick as any people in the world could build them; as quick as the Navy could get them.

The CHAIRMAN. But we did not get them during the war?

Secretary DANIELS. I will have the figures for you on that. I do not recall them. I do not carry in my head the number of ships or dates very well.

The CHAIRMAN. And at the same time, Mr. Secretary, I would like to have a list of all the ships that were in the 1916 program that were actually used during the war.

Secretary DANIELS. Yes.

The CHAIRMAN. That were eventually and actually used during the war.

Now, Mr. Secretary, I can not be here to-morrow for a hearing, and when we adjourn we will therefore adjourn until Monday morning, and at that time you will bring me a schedule showing the plans, will you not?

Secretary DANIELS. I will confer with Admiral Badger and bring you a statement.

The CHAIRMAN. Yes; but—

Secretary DANIELS. And whenever you wish, Admiral Badger—

The CHAIRMAN. If you can not bring the plans themselves—if you can not give the plan itself—I want a statement giving the date of the adoption of the plan, and the reasons why it can not be produced, and I want a list of all of the plans that were in the hands of the General Board that had to do with any possible war with Germany, from July 1 on, both basic and operational, so that we can put them all together, and know just what we had for plans at the date of the opening of the war, April 6, 1917.

Secretary DANIELS. Of course, they are all in the hearings; but I will see Admiral Badger.

The CHAIRMAN. Yes; you can get them from the hearings; and, if you will, have them put those together, and then get them from Operations.

Secretary DANIELS. I will see Admiral Badger about that.

The CHAIRMAN. Then, I will have some further questions about the plans at that time. The committee will stand adjourned until Monday morning at 10 o'clock.

(Thereupon, at 4 o'clock p. m., the subcommittee adjourned until Monday, May 24, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

MONDAY, MAY 24, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, in room 235, Senate Office Building, at 10 o'clock a. m., Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Keyes, and Trammell.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. The committee will come to order. Mr. Secretary, at the last meeting I asked you to bring a schedule showing the different plans of the General Board.

Secretary DANIELS. Yes; I have that. Mr. Chairman and gentlemen, at the close of the hearing on Friday you requested me to make a statement of all the plans made by the General Board that had to do with any possible war with Germany, from January 1, both basic and operational, so that we could put them all together and that you might know just what plans we had on the opening of the war, April 6, 1917.

In response to the question of your chairman, as I stated to your committee on Friday, there are certain basic plans disclosing the naval strategy and tactics which, if printed in these hearings, would be contrary to the naval policies of all countries; but, of course, these large and comprehensive plans, necessarily confidential, are open to the inspection of your committee, and Admiral Badger, chairman of the General Board, will be pleased in executive session to present them to your committee and to show in detail that the General Board, charged with the important duty of making plans for war in the Atlantic and the Pacific, did not neglect this duty imposed upon it.

The General Board, as testified by Admiral Badger, had with great care proceeded with a general study of plans covering the possible war with Germany—those prepared years ago and coming down to date—and the General Board had prepared plans according to the opinions of trained and expert naval officers. These officers, the members of the General Board, composed of some of the ablest naval officers in this or any other country, devoted themselves constantly to the change in conditions in Europe after the war began in 1914, and made numerous plans and studies of the different phases of this war. Different plans and studies were made to cover the various

operations that became necessary as soon as the nations began to take part in the war.

On February 4, 1917, the very day after the German ambassador was handed his passports by our Government, the General Board prepared a definite plan "as to steps to be taken to meet the possible conditions of war with the Central Powers." This was the plan of February 4, 1917, which concluded with these important recommendations, which were acted upon and which were carried out from the very first moment we entered the war until the end of it:

And, as most important, arrange as soon as possible plans of cooperation with the naval forces of the Allies for joint protection of trans-Atlantic commerce and for effective naval cooperation against the enemy.

That plan is as follows:

The CHAIRMAN. Is this the plan referred to on page 2617 of the typewritten record, in Admiral Badger's testimony, of February 4, 1917, "Steps taken to meet a possible condition of war with the Central European Powers"?

Secretary DANIELS. Yes.

The CHAIRMAN. General Board, 425?

Secretary DANIELS. Yes; E. D. 425. Can I read it all?

The CHAIRMAN. Yes.

Secretary DANIELS (reading):

[G. B. No. 425. Confidential. Serial No. 666.]

FEBRUARY 4, 1917.

From: Senior member present.

To: Secretary of the Navy.

Subject: Steps to be taken to meet a possible condition of war—

The CHAIRMAN. I think we have that in the record.

Secretary DANIELS. Yes; but you asked me to put them all together so that we could have them in one place. Shall I read it?

The CHAIRMAN. No; simply give us the plans.

Secretary DANIELS. Bear in mind, gentlemen, this comprehensive and definite recommendation was made on February 4, 1917, a month or two before war was declared, and the day after relations were broken off with Germany. It shows that neither the General Board nor the department were neglectful nor ignorant of the critical situation, as has been charged, or that they lacked the wisdom to take the action necessary to throw the maximum of naval efficiency into the war. Until Congress gave the authority, it was impossible for the Navy Department to commit an overt act or to do anything except to do everything possible to have the Navy and all contributing agencies as nearly perfect as possible, which was done. With reference to the concluding paragraph in these policies set forth by the General Board, and approved by the department and generally carried out, the General Board regarded "as most important of all to arrange, as soon as possible, plans for cooperation with the naval forces of the Allies." This was not an indefinite sort of cooperation, but it recommended two specific things to be done at once, first joint protection of trans-Atlantic commerce; second, offensive naval cooperation against the common enemy.

It is thus seen that even before we entered the war the idea of "offensive cooperation" was the dominating thought of the General

Board and the Navy Department. After we entered the war and in pursuance of coöperation, the General Board and the department considered the boldest and most audacious plans of naval warfare. In pursuance of this recommendation of the General Board in its plans of February 4, I recommended and obtained from Congress additional personnel for the Navy and Marine Corps and other operations and recommendations were carried out for the Navy's participation in the war were made as effective as it was possible for them to be made.

The CHAIRMAN. Was this recommendation directly in regard to something that was mentioned in the report of the board?

Secretary DANIELS. Yes; they recommended the increase of personnel of the Marine Corps.

The CHAIRMAN. And an increase in pay?

Secretary DANIELS. I do not remember whether the General Board made the increase in pay or not; but I did, and we secured it. I recommended and obtained from Congress additional personnel for the Navy and Marine Corps, and other operations and recommendations were carried out for the Navy's participation in the war were made as effective as it was possible for them to be made.

The CHAIRMAN. Yes; but that had nothing to do, you say, with the plans of the board. They did not say anything about additional pay; so that it was not in pursuance of their plans that you recommended it.

Senator DANIELS. Their plan was to secure additional enlisted force. They asked for 150,000 men for the Navy and 30,000 marines. I do not recall whether——

The CHAIRMAN. And did you in your recommendations ask for 150,000 enlisted men for the Navy and 30,000 marines?

Secretary DANIELS. Yes; and secured them, in March.

The CHAIRMAN. One hundred and fifty thousand men?

Secretary DANIELS. I think it was May 22.

The CHAIRMAN. It was not until May 22, then, that you took action on this?

Secretary DANIELS. Congress was not in session, you understand. Congress adjourned on the 4th of March, and Congress did not come back to Washington, my recollection is, until April 5, so that I could have made no recommendation to Congress in its absence.

The CHAIRMAN. But you could have made the recommendation——

Secretary DANIELS. In February; yes.

The CHAIRMAN. This was February, was it not?

Secretary DANIELS. Yes; in February. I will look into the facts about the date. I always like to refresh my memory by the record as to dates.

The CHAIRMAN. And you say that you recommended 150,000 men for the Navy in May?

Secretary DANIELS. I say that I will get the date for you. I recommended this number.

The CHAIRMAN. Very well.

Secretary DANIELS. I will get the exact date when the law was passed and when I recommended it. To be sure, neither the General Board nor the Navy Department had been furnished by any of the nations with which we were to later become allied with their plans of

cooperation. We were then a neutral Nation, and no matter how much the Navy Department or the General Board wished to secure close cooperation with the allied nations, it was manifest that they could do nothing as to securing war plans until Congress declared war. Our naval attachés were sending us such information as they had and we were getting much information through the State Department, but as Ambassador Page cabled, when he suggested that we should send an officer of high rank to Great Britain, the admiralty of that country would not give to the naval attaché or put in writing the most important of their operations against the enemy, even after we had broken off relations with Germany, except by personal conference with an admiral sent out by the American Government for the specific purpose of having conferences looking to the joint cooperation when Congress should declare war. Therefore the recommendation of the General Board in paragraph 22, in which they declared as "most important"—meaning securing cooperation with the naval forces of the Allies "as soon as possible"—was the wisest recommendation they could have made.

Indeed, it was the only plan to secure allied cooperation at that time and it was for the purpose of being ready on the instant that war was declared to cooperate with the Allies that Admiral Sims was sent to Great Britain. The General Board's plan of February 4, in the light of all that has happened, shows their wisdom and foresight and judgment and demonstrates that the department insisted on being prepared, and, as has been unfairly alleged, was not lacking in plans and lacking in foresight and lacking in readiness. The board was not only correct in its war plans immediately prior to the breaking off of relations with Germany, but was, after that, making ready for the emergency which came in April.

I have therefore given you, Mr. Chairman, the February 4 plan, for it was completed just one day after we broke off relations with Germany.

I will present to you now a letter which I sent to the General Board on November 26, 1915, which shows that we were making ready even before Congress had given us the three-year program, and the large increase of personnel and ships and other additions to the naval strength, which I had estimated for in October, 1915. It will be seen that I was calling for a study of plans necessary for participation of the fleet in the war. That letter is as follows:

[First Indorsement.]

NAVY DEPARTMENT, November 26, 1915.

From: Secretary of the Navy.

To: General Board.

Subject: Principal plans necessary for preparedness of the fleet for war.

1. Referred to the General Board for its information and consideration.

2. The principal plans necessary for the preparedness of the fleet for war and for its orderly conduct throughout a campaign are:

I. *Mobilization plan*.—A plan providing for the program of equipping and assembling all the naval forces and for placing on a war footing all naval shore stations and the Navy Department.

II. *Organization plan*.—A plan for grouping all naval forces as organs of the fleet, based on the tactics of types and of groups.

III. *Command plan*.—A plan giving the assignments of personnel to the organization plan to make the latter operative.

IV. *Strategic plan*.—A plan laying down the lines along which the naval operations should take direction.

V. *Base plan*.—A plan defining the area and locality upon which operations of the fleet must be based and supported, and giving the character and capacity of each base.

VI. *Advance base plan*.—A plan giving the location of temporary bases, a tactical study of each, material required, and extent of defensive works.

VII. *Logistic plan*.—A plan giving in detail all steps for equipping and supporting the fleet according to the strategic plan.

VIII. *Naval districts plan*.—A plan in detail for the local defense of coasts. 3. In order that the Navy may be thoroughly prepared for war, each of these plans for war in either ocean, or against any probable enemy, should be complete in great detail.

The CHAIRMAN. Mr. Secretary, one minute. Does this refer, now, to the plan of February 4. I want these matters to be put in chronologically.

Secretary DANIELS. I am putting in the plans showing that in advance we called upon the General Board, and I am showing that the General Board followed this out from the time I wrote to the General Board, specifically, in November, 1915, up to the time, as you asked, when we entered the war.

The CHAIRMAN. I understood you to say that on February 4, when we broke off relations with Germany, you had certain plans that were worked up to date at that time.

Secretary DANIELS. Which I have given to you.

The CHAIRMAN. Then, thereafter, you put in other plans to perfect them. Now, I want to get the list of the other plans that were put in to perfect them. This that you are reading now has to do with the original plans?

Secretary DANIELS. Yes.

The CHAIRMAN. I want the plans in chronological order, so that we can know what we are talking about.

Senator TRAMMELL. I think the Secretary has the right, and it is only fair to let the Secretary show that he had something to do with bringing about those plans.

The CHAIRMAN. That is all right; but I want to get it in chronological order.

Secretary DANIELS. I am giving it in chronological order.

The CHAIRMAN. You commenced with February 4, and now you are going back to something two or three years before.

Secretary DANIELS. I have given you the plan, and now I say to you, why was this plan worked up? This plan has been worked up consistently and constantly—

The CHAIRMAN. To get information.

Secretary DANIELS. No.

The CHAIRMAN. Yes; it was—

Secretary DANIELS. I do not mean by you; I do not mean by the members of this committee; but the charge has been made here continually that we had no plans; that if we had plans, the Secretary of the Navy did not have vision and foresight; and I have a right to show that in 1915, in a letter to the General Board, concretely I laid down the very lines on which I wished their action.

The CHAIRMAN. Now, do I understand that these plans of 1915—these suggestions of yours—all lead up to the plan of February 4, 1917?

Secretary DANIELS. They all lead up to the plan of having the Navy ready with plans for war when we entered the war.

The CHAIRMAN. Do they deal with the plan of February 4?

Secretary DANIELS. If you have read the plan and have listened to what I have said, you will see——

The CHAIRMAN. Then you are confining yourself to the plan of February 4, and later on you are going back to another plan?

Secretary DANIELS. I am confining myself to the plans made for war.

The CHAIRMAN. But I asked you to do it in a certain way.

Secretary DANIELS. But, Mr. Chairman, I insist that the certain way you ask me would leave out that I directed the General Board in 1915 to make these plans, and I will not permit witnesses to come here and tell your committee that I was negligent and I did not look ahead, and that I had nothing to do with this. I am going to show you, in this letter, that in 1915 I laid down identically the kind of plans we desired, and I am showing you that the General Board gave us these extensive plans, in accordance with the orders of the Secretary of the Navy.

The CHAIRMAN. If we do not get it chronologically, we shall have to go over the same thing again and again and again, until we do get it.

Secretary DANIELS. Now, Mr. Chairman, if you want it chronologically——

The CHAIRMAN. I do.

Secretary DANIELS. I will let your stenographer take this February 4 date and place it after the letter of mine.

The CHAIRMAN. That will mix the record up, because there will be a question——

Secretary DANIELS (continuing). After 1915. Whether this letter of mine of 1915 is essential——

The CHAIRMAN. There is no objection to having the whole thing in, but I want it in chronological order.

Senator TRAMMELL. I submit, Mr. Chairman, that in the preparation of testimony or a brief, you lay down your principal premise, and then support it with the authorities which bring about that result.

Secretary DANIELS. That is what I have asked him to do in regard to this particular plan, and he will not answer.

Senator TRAMMELL. He has cited an order, and now he is showing the basis on which this order was brought forth.

The CHAIRMAN. He was asked for a particular thing, and that particular thing I do not get.

Senator TRAMMELL. I think that in fairness the Secretary ought to be allowed to show what he had to do with the production of those plans, and he ought to be allowed to do it right in connection with the plans, and not a day or two later.

The CHAIRMAN. It is in connection with this plan. That is what I asked him, if it is in connection with this particular plan of February 4 that he is talking about.

Secretary DANIELS. I say to you this, that this plan is in compliance with my letter of November 26, and so are the other plans which I will read to you, carrying out my directions of November 26.

The CHAIRMAN. When you give a plan will you give anything you have to say about it in connection with that particular plan?

Secretary DANIELS. I am coming to that [continuing reading]:

In order that the Navy may be thoroughly prepared for war—

Now, this is 1915—

Each of these plans for war in either ocean, or against any probably enemy, should be complete in great detail, and should include all necessary orders drafted for carrying them into effect. It is not only necessary that each of the executive offices of the department should have defined the task which it must itself undertake, but each office should know the relation that its task bears to other tasks in the general scheme.

4. The eight plans enumerated are urgently needed, but the need for the first three is most pressing, and the department desires that the General Board submit for its approval, as early as practicable, complete detail plans for mobilization, organization, and command.

In compliance with this direction of the Secretary of the Navy the General Board made the plan of February 4, which is most complete.

The CHAIRMAN. This was two years before, and they did nothing in between?

Secretary DANIELS. Oh, on the contrary, I am showing you now what they had done in between. Here is a letter in which they review, on November 16, all that they have done in the year or 10 months [reading]:

In compliance with the directions of the Secretary of the Navy in the preceding indorsement, the plans requested were prepared and submitted by the General Board from time to time.

When completed the fact was so reported to the Secretary in the following indorsement of the General Board:

[Second indorsement.]

GENERAL BOARD,
September 8, 1916.

From: Senior member present.

To: Secretary of the Navy.

Subject: Principal plans necessary for preparedness of the fleet for war.

1. Returned.

2. Referring to the first indorsement, the General Board's action thereon has been as follows:

I. *Mobilization plan*.—This plan is contained in the Black plan, pages 70 to 118-F, inclusive, and Appendix A, pages 126-a to 144-g, inclusive.

II. *Organization plan*.—This plan was submitted to the Navy Department with G. B. letter No. 420, December 29, 1915, and was approved as revised and published in General Order No. 218, of June 5, 1916.

III. *Command plan*.—The details of this plan are being handled by the Bureau of Navigation and the portion of it relating to officers is kept revised to date as published monthly in the Navy and Marine Corps List and Directory.

IV. *Strategic plan*.—This plan is contained in the Black plan, pages 1 to 60-b, inclusive, and is being added to in accordance with Navy Department's letter of June 13, 1916, General Board Serial No. 553, covering special cases.

V. *Base plan*.—This plan was submitted to the Navy Department March 4, 1916, G. B. letter No. 404-A (serial No. 480) and approved by the Navy Department August 28, 1916, with the exception of the portion relating to a permanent repair and supply base in the Caribbean, on which decision is deferred for the present.

VI. *Advanced base plan*.—This plan was submitted to the Navy Department in General Board letter of June 16, 1916, and approved July 14, 1916, which approval directed certain additions which are now being prepared.

VII. *Logistic plan*.—The general logistic plan is contained in the Black plan—

That is for war with Germany——

The CHAIRMAN. That is the plan that can not be made public?

Secretary DANIELS. Yes. [Continues reading:]

The general logistic plan is contained in the Black plan, Appendix B, pages 145 to 150-a, inclusive. The detailed logistic plans are being handled by the bureaus having cognizance of the material concerned.

VIII. *Naval district plan.*—The general plan of organization of naval districts and assignment of naval vessels thereto is contained in the Black plan, Appendix A, pages 135-a to 140-d, inclusive. The details of the operation of naval districts are being handled by the officer in charge of naval districts in the office of the Chief of Operations.

3. In view of the foregoing, it is considered that the first indorsement, taken up by the General Board as serial No. 461, has been complied with in so far as is now practicable, and it has been removed from the list of papers under consideration by the General Board.

CHAS. J. BADGER.

To return to the matter in hand, immediately upon breaking off relations with Germany, I have given you the plans of February 4. One week later, or February 10, I addressed the following letter to the General Board:

FEBRUARY 10, 1917.

To: The General Board.

Subject: Solution of problem.

1. The department desires the General Board to consider the following problem and submit its solution as soon as practicable:

Problem: General situation—Conditions as at present except that war with Germany is declared.

The CHAIRMAN. Will you tell me again about that plan which was prepared on June 24, 1916?

Secretary DANIELS. Where is that?

The CHAIRMAN. The one you just read about.

Secretary DANIELS. I did not say June 24; I said June 13.

The CHAIRMAN. June 13?

Secretary DANIELS. Yes; General Board, serial No. 553.

The CHAIRMAN. And when did they take action on that?

Secretary DANIELS. This was a letter of Admiral Badger. He does not say when he took action on that. I will get that date. That may be or may not be a confidential plan. I will look into that. If it is a matter of strategy of war with Germany, it is confidential. If it is not, it can go in the record.

The CHAIRMAN. I have here a list given by Admiral Badger of the various acts of the board, and I do not find any such reference in the list.

Secretary DANIELS. Well, this is a letter from him which I am reading you, so that if he did not place it in here, why——

The CHAIRMAN. What is the date of the letter?

Secretary DANIELS. The date of the letter is September 8, 1916.

The CHAIRMAN. Oh, here is a letter of September 8, 1916.

Secretary DANIELS. Yes; this is his letter.

The CHAIRMAN. Apparently no action was taken on it.

Secretary DANIELS. Well, that is 1916.

The CHAIRMAN. Yes.

Secretary DANIELS. The plan of February 4 would have found that they had summed up in their actual working plan and basic plan

everything that was desired, and the subsequent plans that they sent, on up to April. [Reading:]

The general logistic plan is contained in the Black plan—that is, war with Germany—Appendix B, pages 145 to 150-a, inclusive. The detailed logistic plans are being handled by the bureaus having cognizance of the material concerned.

VIII. *Naval districts plan.*—The general plan of organization of naval districts and assignment of naval vessels thereto is contained in the Black plan, Appendix A, pages 135-a to 140-d, inclusive. The details of the operation of naval districts are being handled by the officer in charge of naval districts in the office of the Chief of Operations.

3. In view of the foregoing it is considered that the first indorsement, taken up by the General Board as serial No. 461, has been complied with, in so far as is now practicable, and it has been removed from the list of papers under consideration by the General Board.

CHAS. J. BADGER.

To return to the matter in hand, immediately upon breaking off relations with Germany, I have given you the plans of February 4. One week later, or February 10, I addressed the following letter to the General Board:

FEBRUARY 10, 1917.

To: The General Board.

Subject: Solution of problem.

1. The department desires the General Board to consider the following problem and submit its solution as soon as practicable.

Problem: General situation—Conditions as at present except that war with Germany is declared. Special situation—The Allies do not desire our battleship force at present. Required—Naval estimate of the situation—

We had that from Mr. Balfour, through the ambassador—

First. As to the grand strategy demanded by the situation.

Second. As to disposition of battleship force.

Third. As to method of assisting in maintaining communications with Europe, including scheme for cooperation with Allies.

Fourth. As to methods of driving submarine from the sea.

Assume: Mobilization of all naval vessels and possibility of mobilizing merchant vessels as required.

JOSEPHUS DANIELS.

On February 17 the General Board presented a report to the Secretary of the Navy, accompanied with the following letter:

GENERAL BOARD, NAVY DEPARTMENT,
Washington, February 17, 1917.

To: Secretary of the Navy.

Subject: Solution of problem—Black.

Reference: (a) Navy Department confidential letter of February 10, 1917.

1. In accordance with reference (2) the General Board submits herewith problem and solution based upon the general and special situations described in the Navy Department's instructions.

CHARLES J. BADGER.

The CHAIRMAN. That was what date—February, 1917?

Secretary DANIELS. February, 1917.

The CHAIRMAN. That was the plan that was lost?

Secretary DANIELS. That is the plan that they have not been able to find. This report was approved by the department and taken up by Operations.

The CHAIRMAN. What is that?

Secretary DANIELS. This report was approved by the department and taken up by Operations.

The CHAIRMAN. What, the plan that was lost?

Secretary DANIELS. Yes. When Admiral Badger came before your committee, and also Capt. Pratt, they said they were unable to find this report, which was an amplification of the report of February 4, and when approval of it was sent to the office of Operations it was undoubtedly acted upon by Operations for the carrying out of the first steps taken even before we entered the war and after we entered the war.

The CHAIRMAN. How could a report of that kind be lost, Mr. Secretary?

Secretary DANIELS. Search me! It was sent to the General Board by the Chief of Operations and returned to the Chief of Operations. I would say this, Mr. Chairman: Those confidential reports, when they were sent to Operations, were put in a safe, as a rule, and taken out either by the Chief of Operations or the Assistant Chief of Operations, and they were held as strictly confidential, and he gave out to other people such parts of them as he wished them to carry out. I told you the other day that it was a matter of very deep regret that Capt. Volney Chase could not be here. His death was a great loss to the Navy. He was assistant for Operations in the early days of the war. He gave his life, by his hard work day and night, in the Office of Operations.

Capt. Pratt made a diligent search for this, and so did Admiral Badger.

Under the rules a copy of this is never left in the Secretary's office. When it is sent by the General Board it is sent to the Chief of Operations, who brings it to the Secretary for his approval. Upon its approval he immediately takes it back and acts upon it. Now Admiral Badger, whose testimony, of course, will be accepted everywhere, says this report was sent as an amplification of the plan of February 4. Capt. Pratt tells you that he has made diligent search for it and he could not find it.

The CHAIRMAN. And you have no record of its being used, or anything like that?

Secretary DANIELS. There is no record in the Secretary's office. In Operations, whatever amplification of the plan of February 4 was contained in that plan undoubtedly was carried out.

The CHAIRMAN. But you do not know, specifically, about what happened in relation to the recommendations, and you do not know specifically what was in the plan?

Secretary DANIELS. As a matter of fact, that plan was an amplification of the plan of February 4, and the plan of February 4 outlined, as I have shown you, the plan on which the Navy Department should act. The amplification of it was undoubtedly carried out.

The CHAIRMAN. I would like to hear the plan of February 4 now.

Secretary DANIELS. You suggested that I need not read it.

The CHAIRMAN. Yes.

Secretary DANIELS. I will read it now [reading]:

Steps to be taken to meet a possible condition of war with the central European powers.

On account of existing conditions—

This was the day after the German ambassador had received his papers and went home—

the General Board recommends that the following steps be taken to meet a possible condition of war with central European powers:

1. Complete complements and allowances of all kinds, first of the A and B fleets, then of the C fleet, and naval districts.

These fleets that I refer to—A, B, and C—are in the Black plan, that is for war with Germany.

2. Mobilize the A fleet in the lower Chesapeake and increase it immediately to the B fleet. (See Black plan.)

3. Dock and repair all ships in reserve and ordinary that will be used.

4. Arrange for the supply of fuel to the fleet and stock all fuel depots to capacity.

5. Establish additional recruiting stations and increase personnel of the Navy and Marine Corps to the total number required to supply complements for all the ships built, building, and authorized, and to maintain shore establishments and naval defense districts, including aviation service, with 10 per cent additional for casualties, as follows: Enlisted force, Navy, 150,000; marines, 30,000; officers in the proportion prescribed by law.

6. Mobilize the naval districts, including the Coast Guard and Lighthouse Services, and put patrol vessels, mine sweepers, etc., of the Atlantic coast districts on their stations; no commercial vessels to be mobilized in the Pacific coast districts at present.

7. Prepare to the utmost detail for the employment of mines along our coast as may be necessary.

8. Prepare nets and other obstructions for submarines, ready for immediate use, at the Chesapeake Capes, Delaware Capes, entrance to New York Bay, eastern entrance to Long Island Sound Narragansett Bay, Panama Canal, and Guantanamo. Other places as their need becomes apparent. The General Board considers it of the utmost importance that net protection shall be immediately provided for the fleet during its mobilization in Chesapeake Bay.

9. Establish immediately the guards at all navy yards, magazines, radio stations, powder factories, munition plants, bases, shipbuilding yards, and naval shore utilities in accordance with the mobilization plans.

10. Reduce the force of marines in Haiti and Santo Domingo to the smallest number that can maintain order there; transferring these men to the United States to perform necessary guard duty at navy yards, magazines, radio stations, shipbuilding plants, and to form cadres for the organization of new regiments as recruits are obtained. Organize the advanced-base force and complete its equipment.

11. Leave in the Caribbean a sufficient number of light cruisers to keep a lookout for submarines in those waters and for the protection of our interests there. Protect the canal and Guantanamo, as far as possible, by the use of mines, and where possible by monitors, submarines, and nets.

12. For the present use the greater part of the destroyer flotillas as patrol for submarines in the vicinity of the principal ports or entrance leading to them.

13. Base the submarines at canal, Guantanamo, and points along the coast in accordance with the Black plan.

14. Rush to completion all naval vessels building or authorized; also build up the Aviation Service as rapidly as possible.

15. Guard all bays and harbors on the coast of Maine to prevent their use as bases of supply. Patrol waters of Haiti, Santo Domingo, Porto Rico, and Danish West Indies; Cuban Coast Guard service, to assist in patrolling all bays and gulfs of the coast of Cuba.

16. Prepare to close entrance to all ports at night and discontinue or change such aids to navigation as may be necessary.

17. Organize a comprehensive system of intelligence service covering the whole theater of war in accordance with the plans of the Office of Naval Intelligence.

18. Take possession of all interned vessels of war of Central Powers, also take control of all commercial vessels of Central Powers now in the United States waters.

19. Place under surveillance all citizens of the Central Powers in the Navy or in Government employ in naval establishments, and remove them from positions in which they may do possible harm.

20. Arm our merchant ships for the purpose of defense.

21. In accordance with Black plan carry out the following:

(a) Issue proclamation prescribing defensive sea areas and put rules in regard to them in force.

(b) Issue proclamation prescribing press regulations and establishing censorship of cable and radio, including naval control of all commercial and private radio stations.

(c) Issue President's order in regard to visit and search, capture, etc.

22. And, as most important, arrange, as soon as possible, plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce and for offensive naval operations against the common enemy.

CHAS. J. BADGER.

The CHAIRMAN. Now, Mr. Secretary, you have already read me your letter of February 10, have you not, your letter to the board asking for further plans?

Secretary DANIELS. Yes; I read that.

The CHAIRMAN. Without putting it in the record now, will you read that again?

Secretary DANIELS. My letter of February 10?

The CHAIRMAN. Yes; your letter of February 10.

Secretary DANIELS. Yes.

(Secretary Daniels again read the letter of February 10.)

The CHAIRMAN. That is to be taken as an amplification of this plan of February 4?

Secretary DANIELS. Mr. Chairman, the letter of February 10 and the plan of February 4 indicate what the plan of February 17 was. It was made in response to my letter of February 10.

The CHAIRMAN. Yes; but you do not know what was in it. I say, that letter was written to get them to amplify that plan of February 4?

Secretary DANIELS. To carry out exactly what is said in the letter.

The CHAIRMAN. Very well.

Secretary DANIELS. Now, proceeding chronologically, the General Board was in continuous session making studies and plans. In February and March the General Board was studying every possible condition which the Navy might be called upon to meet. The February 4, 1917, plans, as I have shown you, dealt with the large operation and policies at home and abroad which should govern us in our conduct of the war abroad and at home, laying stress on the necessity of the immediate close cooperation with the Allies and offensive action to secure victory.

On March 17 the General Board having in mind the danger of an attack upon our metropolis, the city of New York, the great shipping port through which most of our troops and supplies went to Europe, presented the following study and plan:

GENERAL BOARD, DEPARTMENT OF THE NAVY,
Washington, D. C., March 17, 1917.

From: Senior member present.

To: Secretary of the Navy.

Subject: Estimate of the situation as to system of patrol and sweeping best adapted for protection of shipping off port of New York.

Inclosure: Chart.

Mission: To protect from submarine attack all shipping approaching or leaving New York.

1. According to shipping reports \$1,000,000,000 is a conservative estimate of the value of shipping and cargoes entering and leaving New York monthly,

from and to foreign ports. In 12 months this is \$12,000,000,000. One per cent of this is \$120,000,000. Thus the money needed to provide protection to shipping against submarine operations off New York will be a very small percentage of the value of the property to be protected.

2. *Enemy forces—Strength, disposition, probable intentions, etc.*—The number of enemy submarines which may appear off the harbor is uncertain, but in view of the number supposed to be available, the distance they have to come, and the lack of any known bases on this coast, it is probable they will appear in groups of two or more, possibly accompanied by submarine tenders, but in any case the number will be small. As the object of the enemy is to destroy as much merchant shipping as possible in order to stop or reduce the shipment of supplies to the Entente Allies, attacks will primarily be made on merchant vessels.

3. To accomplish this the submarines will use torpedoes, guns, or mines.

4. Guns will be effective against unarmed shipping and be the most economical of the three weapons, because with a given weight of ammunition the return will be greater.

5. Torpedoes may be fired by submarines from the surface or submerged, but the number carried by a single submarine is limited, and therefore the range at which it will be profitable to fire torpedoes must be short, especially when the submarine is submerged. Torpedoes will be used against the largest ships, as such ships will present the largest target and may be destroyed by a single torpedo.

6. Mines can be used in water not over 50 fathoms in depth, and if used, will be laid in the most probable tracks to be followed by shipping and as near the focus of those tracks off the port as possible. They may be laid from large submarine mine layers, and have been laid from neutral vessels fitted with secret compartments. A combination mine laying and supply submarine may be employed.

7. It is improbable that mines will be laid in the areas in which it is expected to employ submarines with torpedoes and guns. Consequently a combination mine laying-supply submarine may at first lay its mines as close in as possible, and then proceed to a determined rendezvous to supply the gun and torpedo type operating off shore. Presence of mines in an area before a port will indicate that such an area will not be a cruising ground for submarines using torpedoes and guns.

8. *Our own forces—Strength, disposition, and courses open to us.*—Destroyers, light cruisers, and gunboats are all we have available at present to use against submarines. There are not enough of these to meet the needs of the situation in general even if sufficient for a single port. It will be necessary to take over yachts, fishing vessels, and suitable commercial crafts to make up the numbers which will be needed. It remains, therefore, to determine approximately what those numbers will be and the armament and qualities they should possess.

9. To combat submarines and to deprive them of the advantages which the ability to submerge gives them:

(a) If they use the gun, guns of equal or greater power must be used against them.

(b) If they lay mines, waters where they can lay them, and which it may be necessary to use must be swept, and may be searched by aircraft.

(c) If they fire torpedoes when submerged by day or from the surface at night patrol of waters by surface craft or search by aircraft is necessary to locate and trap or force them to keep under the surface, and convoy of large vessels by small surface craft may also be necessary.

The CHAIRMAN. This is all on the plan of March 17, is it?

Secretary Daniels. It is all on the plan of March 17; yes; for the protection of the port of New York against submarine attacks.

Aircraft should be used to assist in the patrol of the approach to New York or other ports as necessary. In addition to shore bases hydroaerons might be employed as mobile bases for small aircraft.

(d) Steps must be taken to trap and destroy submarines when submerged. For this purpose trap nets may be anchored, drift nets used, and bombs provided for destroying submarines. Such bombs will be towed and exploded from towing vessels or thrown overboard from surface or aircraft, and fitted with firing mechanism set to explode at a determined depth.

PROTECTION AGAINST GUNS.

10. As submarines may suddenly appear in any direction, and carry one or two guns of 3 to 4-inch caliber, all merchant vessels should be provided with batteries of four guns (to obtain all around fire) of not less than 3-inch caliber, if practicable, but batteries of even six or three pounders will be of assistance to prevent submarines from closing in on the surface to short ranges.

11. Arming merchantment gives them a measure of protection which goes with them throughout a voyage. The greatest menace to shipping from submarines at present is in the prescribed zone of European waters; vessels proceeding through such zones should be armed first. Trained gun pointer groups will be needed for all guns.

PROTECTION AGAINST MINES.

12. While the menace from mines laid by enemy submarines on the United States coast is not believed to be great, provision should be made to meet it.

13. As New York harbor has been closed to submarines by nets placed at the Narrows, channels from that point to the lightships should be patrolled, and swept for mines if necessary. But as submarines can only enter these channels on the surface sweeping for mines outside the entrance channels to the 50-fathom curve will be the more important problem.

14. Due to distance which it is necessary to bring mines and the consequent limited number which will be available, the probability of repeated mine laying, under the present circumstances, is remote. If resorted to at all they will be laid as close in as possible to increase the chance of their being effective and at the same time not interfere with submarines using torpedoes. Under these conditions the continuous sweeping of an area approximately 8 miles wide and 15 miles long outside the channel entrances would probably be a good indication of the presence or absence of mines in the approaches to New York.

15. Assuming a pair of sweepers covers 400 yards and can sweep at 5 knots, the above area would require 10 pairs, or 20 sweepers, working 12 hours a day, or to sweep daily and allowing half-time on station, a total of 40 sweepers.

16. If mines are found in the above area, sweeping should be extended off-shore, possibly as far as the 50-fathoms curve. Sweeping should continue until it is demonstrated that no mines are present. The most direct route to deep water will require the fewest number of sweepers.

17. Off-shore sweeping may consist in:

(2) Sweeping a wide band in which mines may be laid in depths of 50 fathoms or less.

(b) Groups of sweepers to precede vessels proceeding singly or in groups.

(c) Continuous sweeping of a lane of definite width.

18. By the first method the area off New York would be over 5,000 square miles, and even if the vessels required were available the benefits obtained are not sufficient to warrant the adoption of this method.

19. By the second method, vessels singly or in groups could be conducted on any desirable course but only at the speed of the sweeping vessels (5 knots), and if mines were found the convoy would have to stop until the area was cleared. With a limited number of sweepers the number of vessels in a convoy group would necessarily be large. The large groups, slow speed, and possible necessity of stopping, all favor the attack by submarines. As the shortest distance from Ambrose Channel to the 50-fathom curve is more than 80 miles, vessels preceded by sweepers could cross this area in one daylight and must follow the sweepers at night or deploy over a possibly mined area. Therefore this method is rejected.

20. By the third method, given a large number of sweepers, a lane 10 to 20 miles wide could be kept swept and merchant vessels could proceed without further assistance at best speed at any hour across the area.

21. Allowing a distance of 400 yards per pair of sweepers and a speed of 5 knots, a lane 10 miles wide and 80 miles long would require 100 vessels and 16 hours, and to sweep the lane once per day and hold vessels one-half time on station, would require 200 sweepers. By reducing the lane in width the number of sweepers will be reduced proportionately, but the narrow lane must be well defined, as by a line of buoys, so that vessels keep in the swept area. This has the disadvantage of indicating the route to the enemy, but alternate

lines of buoys could be planted and the swept lanes shifted as deemed necessary.

22. The question then arises how wide a lane to sweep and what system would require the least number of sweepers.

23. Considering the question of a line of buoys spaced at 5 miles on a known bearing (say 130° from Ambrose Channel) merchant vessels should be able to keep within 1,000 yards of this line in average conditions of weather in daylight, outgoing vessels passing on one side (right) and incoming vessels on the other of the buoys. This will require a swept lane on each side of buoys, but if vessels going in both directions are on same side of buoys the outer vessels are more liable to get too far from line of buoys. The sweeping of this double lane can be done by:

(a) Assigning a group of sweepers to a section of so many miles.

(b) Sweepers proceeding out one side and in the other, groups to start from inner end at fixed intervals.

24. The latter method has the advantage that no vessels are required to proceed to distant stations, but all are usefully employed as soon as they start from inner limit.

25. Furthermore, no time is lost in turning at end of sections, sweepers are always proceeding in same direction, as traffic and overtaking vessels need only pass to opposite lane to pass a group of sweepers.

26. Reduced to a schedule this plan would work out as follows:

(a) Sweepers to work in groups of three pairs each; first and second pair to sweep in echelon, covering about 900 yards, and third pair to serve as guides and mine-destroying vessels, and to replace either of other pairs as necessary.

(b) Speed: Daylight (6 a. m. to 6 p. m.) 5 knots; night $2\frac{1}{2}$ knots.

(c) Group A leaves Ambrose Channel 6 a. m., first day; group B leaves Ambrose Channel noon, first day; group C leaves Ambrose Channel 6 p. m., first day; group D leaves Ambrose Channel 6 a. m., second day; group E leaves Ambrose Channel noon, second day; group F leaves Ambrose Channel 6 p. m., second day.

(d) Group A leave outer limit at 6 a. m. second day and other groups at correspondingly later hours.

(e) All sweepers return to starting point at 6 a. m., noon, or 6 p. m., and can be relieved there as necessary, after one or more round trips, 48 hours being required for each round trip.

(f) Allowing for reasonable delays, a distance of 75 miles will be swept; groups of sweepers will be 25 miles apart and every part of the lane will be swept twice during each day and once during each night.

(g) The number of sweepers required as outlined above would be 36, and, allowing only half time on station, a total of 72.

(h) If this number of sweepers is not available, a proportionately shorter distance, or less width of lane, could be swept by the same system, beginning at the inner end and extending as more sweepers become available.

27. The practicability of employing these vessels for sweeping as indicated is, however, problematical. Placing buoys to indicate a narrow lane and so restrict the area to be swept introduces an objectionable feature, because they indicate the track shipping will follow and assist the enemy in both mine laying and torpedo operations. A system of sweeping narrow lanes offshore marked by buoys is therefore not recommended.

PROTECTION AGAINST TORPEDOES.

28. If, under the circumstances, submarine operations are assumed to be practicable off New York, attack with torpedo seconded by the gun is more probable than by laying mines. Consequently, a protective patrol by armed surface craft should be maintained for the purpose of capturing, destroying, or driving submarines from the area patrolled. This surface patrol should be supplemented by aircraft.

29. The waters to be patrolled extend from the net obstruction at the Narrows to as far offshore as practicable with vessels available. For the part from the Narrows to the channel entrances, the smaller harbor craft can be used.

30. The vessels used for the outer patrol should have good seakeeping qualities and it is desirable that they be of not over 12 feet in draft. Speed to overtake a submarine on the surface is desirable, 18-20 knots.

31. With an unlimited number of vessels the entire area off New York should be patrolled, but with a limited number better results would be obtained by a more efficient patrol of a limited area, or lane, such lane to be shifted as considered desirable.

32. Any method of protection by patrol vessels must follow the areas swept to the outer limits and then may extend in any desired direction.

33. Protection of vessels passing through danger zones may be effected by patrol vessels:

(a) By convoy of individual vessels.

(b) By continuous patrol of lanes, or areas, vessels to be protected to proceed through them at their maximum speeds.

(c) By a combination of these methods.

34. If convoy is adopted vessels should as far as possible be convoyed individually to avoid a massed formation and to present a target of minimum density.

35. During the month of January, 1917, 393 merchant vessels cleared from New York for foreign ports, an average of 13 per day, although some days this number was probably considerably exceeded. Allowing four patrol vessels for each vessel convoyed, 52 vessels would be required, and, assuming that an equal number of vessels enter, a total of 104 vessels for convoy would be needed daily. If the speed of the vessels convoyed averaged 12 knots, they would be protected for 100 to 150 miles offshore, and convoying vessels return with incoming vessels the following day.

36. The average number of vessels leaving daily for domestic ports is reported to be about 12. Under war conditions all vessels proceeding in and out would be subject to attack and it is probable that no attempt would be made to differentiate between coastwise shipping and shipping bound for Europe. Therefore, if individual vessels were given protection an average of 200 patrol vessels would be required, without allowing for reliefs.

37. If the method of continuous patrol of lanes is adopted it could be maintained as follows:

(a) Assign individual vessels to a certain section or area.

(b) Have all vessels work in a circuit over the area to be patrolled.

(c) Combine methods (a) and (b).

38. The distance between patrol vessels will depend upon the distance at which periscopes can ordinarily be sighted.

39. Of the above methods the first method of dividing the patrolled area into circuits or stations will permit the employment of vessels at distances from their bases proportionate with their endurance and the least seaworthy craft can be placed close to the port entrance.

40. Submarines will probably not attack single ships under way with torpedoes at a range greater than 1,000 yards, but assuming the maximum range at which the torpedo will be fired from the submarine at a single vessel as 2,000 yards, a lane at least 4,000 yards wide should be patrolled.

41. If the distance at which periscopes showing on the surface can be made out under average daylight conditions is 1,000 yards, then two lines of patrol vessels will cover a width of 4,000 yards and a patrolled limit of 100 miles will require 200 patrol vessels.

42. From the foregoing, it appears that for the average number of arrivals and departures from the port of New York the number of patrol vessels is approximately the same by the convoy method or the lane-patrol method. Necessary relief vessels would increase the numbers given above.

43. A combination of the two methods would consist in the patrol of such lanes as are more or less continuously swept and convoy beyond such lanes.

44. At night the efficiency of patrol is greatly decreased, therefore vessels should pass through closely patrolled area or lanes lying in the immediate approaches to the port or be convoyed through them during daylight as far as possible. The sinking of the *Laconia* demonstrates the possibility of successful torpedo attack by submarines at night. Patrol vessels operating along lanes closely spaced will, in a measure, indicate by night or day the routes along which submarines will find their prey.

45. It is desirable that all patrol vessels have at least one 3-inch gun, but experience abroad shows that submarines do not operate on the surface in the presence of surface craft armed with a lighter battery. Lightly armed patrol craft, however, should be supported, if possible, by vessels with heavier batteries.

DECISION.

1. Arm merchant vessels as follows:

(a) Assign guns, first to vessels proceeding to European waters, and to other vessels according to liability of attack along the routes they are to follow.

(b) Batteries will consist of guns of not over 5 or 6 inch caliber, nor less than 3-inch if available, and according as it is practicable to mount them.

(c) Mount at least one gun aft and one forward, but number, caliber, and location will depend upon numbers on hand, the practicability of mounting and working them, and the arc of the horizon which the guns will command.

(d) If guns of different calibers are mounted on the same ship, place the heaviest guns aft.

2. Establish sweeping operations as follows:

(a) Sweep entrance channels to New York as necessary and an area approximately 8 miles wide and 15 miles long southeasterly from the channel entrance. Forty sweepers will be required. This will require one-half sweepers to be on station at the same time. (See accompanying chart A.)

(b) Should mines be found in this area or should indications point to their being placed farther offshore, extend sweeping operations offshore, sweeping about 130° true, eventually to the 50-fathom curve, maintaining a lane at least 5 miles wide. Twenty-five pairs of sweepers could go over such a lane commencing beyond the above area in 14 to 16 hours. Patrol vessels will be necessary as guides and to assist in the destruction of mines if found. Discontinue this sweeping when this area is apparently clear of mines.

(c) The total number of sweepers required to meet above conditions and sweep to the 50-fathom curve will be 100, allowing one-half time off station.

(d) Fit paravanes as practicable to bows of vessels as additional protection against mines.

3. Establish a patrol from the Ambrose Channel entrance as follows:

(a) Assign the patrol force in groups of three or four patrol vessels to convoy departing merchant vessels singly or in pairs approximately 100 miles offshore. Passage to be made through swept area and then over diverging routes as desired, and, as far as practicable, during daylight.

(b) The patrol vessels which have proceeded offshore will return with incoming merchant vessels and reverse the process followed when proceeding out.

(c) Limit of draft of patrol vessels to be not more than 12 feet, if possible. They should have a sustained speed of not less than 12 knots, a maximum of 18-20 knots is desirable, and their endurance under service conditions should be seven days, if possible, but not less than four days.

(d) Provide all patrol vessels with signal set, radio set, submarine microphone attachment, bombs, and paravanes for use against submarines.

(e) In addition to sweepers and convoy patrol vessels, organize a combined force of submarine hunters consisting of surface and aircraft. This force should consist of 50 patrol vessels and the necessary aircraft.

(f) For patrol duty provide 250 patrol vessels.

4. Offshore outer patrol:

(a) Organize an offshore or outer patrol to patrol routes beyond the positions where convoy of vessels ends outward or begins inward.

(b) Such patrol will consist of sea-keeping yachts, small gunboats, destroyers, suitable fishing or other craft. The routes patroled will diverge from or converge to positions where convoy ceases or begins, as may be desirable, and extend beyond those positions 100 to 150 miles.

(c) Provide 20 vessels for this purpose, one-half the vessels to be on station at one time.

(d) Lay down written instructions for systematic movement of these patrol vessels, which may be modified by radio; but use of radio by all patrol vessels to be limited as far as possible to reports of enemy movements or signals of distress.

5. The command of the patrol and sweeping force and control of the traffic to and from New York and its approaches shall be centered in one officer:

(a) He shall be furnished with information 24 hours in advance of the readiness of all vessels for leaving the port of New York. He will then arrange for their escort and will notify the agents or masters of the time they shall leave the lower bay.

(b) He shall also be given all information available of the sailing of ships bound for New York and the probable date of their arrival. These vessels are

expected to pick up patrol vessels at or near the outer limit of the patrolled area and receive directions by word of mouth or signal (not radio) as to their further procedure.

6. Provide special radio code by which patrol vessels may receive or forward important information, but radio to be reserved for emergencies.

7. Cooperate with the Allies as to instructions to be given ships as to the methods of making passage and approaching port.

CHAS. J. BADGER.

The CHAIRMAN. I find a memorandum here in Admiral Badger's list, stating that this plan was referred to the commandant of the third naval district on April 16, 1917, for information and return. Of course, it was not adopted before the war, and was not one of the plans for which I asked you.

Secretary DANIELS. I wish to show you the extreme importance of this very comprehensive study and plan made by the General Board for protecting the port of New York. Now, I read in the Washington Post this morning the following, showing the absolute necessity of protecting the port of New York.

BERLIN, May 23.—If you succeed in measurably restricting American deliveries of war materials to the Entente until the end of 1915, we will in all probability have won the war.

The CHAIRMAN. What is the date of this?

Secretary DANIELS. May 23; from Berlin; yesterday. I wish to show you from German testimony, as well as the testimony of Gen. Wood, the extreme importance of our protecting the port of New York. This dispatch reads as follows:

BERLIN, May 23.—If you succeed in measurably restricting American deliveries of war materials to the Entente until the end of 1915, we will in all probability have won the war.

Gen. von Falkenhayn, then chief of the German general staff, wrote thus to Capt. Franz von Papen, German military attaché at Washington, in the spring of that year. The statement, which comprised part of the evidence submitted by Von Papen in a recent hearing before a parliamentary commission, was amplified by him to the extent that he directed his efforts to this end.

Capt. von Papen at the time was secretly examined by the national assembly commission, which also heard Count von Bernstorff, the former German ambassador to the United States. His evidence is only now made public.

Von Papen declared that he was of the same opinion politically as Von Bernstorff, with respect to the American situation, and so informed Gen. von Falkenhayn when he returned after his recall from Washington.

"If you do not succeed in keeping the United States out of the enemy coalition you will have lost the war," Von Papen informed the chief of staff. He added that tremendous material and moral assets were at the disposal of America. "But," continued Von Papen, "these were so imperfectly appraised here I deemed it necessary to enlighten the German public opinion concerning them."

The military attaché obtained the consent of Von Jagow, foreign secretary, to appear before the German editors for the purpose of informing them on the German attitude, but Maj. Nicoll, chief of the press and espionage division of the general staff, opposed the plan.

After detailing the plans to secure a corner in war materials in the United States, control factories, divert labor, and prevent munitions

from reaching the Entente, Von Papen said that the theft of Dr. Albert's portfolio, containing outlines of the scheme brought the secret into the Entente's possession. In the course of further evidence Von Papen touched upon the alleged unneutral attitude of official quarters in Washington, the American courts, and political circles and declared that the British military attaché was permitted to operate unmolested and given the support of official quarters and the American secret service.

Von Papen testified:

Gen. Wood once asked me to call on him at Governors Island. He was very cordial, and smilingly told me: "Several persons have called on me and given me a detailed plan of a plot, which you, Captain, are supposed to have worked out. The scheme provides for the handling of German U boats at New York, which would then proceed to blow up the subway tunnels and the city's water mains. We have your complete plans; where you propose to place your explosives and what points you will attack. Complete evidence is in my possession; you may see it if you are interested."

We did not waste a single word over the matter. But the incident shows the methods used against us at the time.

This shows that the General Board was very wise in thus making the most careful plans to protect New York against submarines.

The CHAIRMAN. And this was referred on April 16 to the commandant of the naval district for information and return, so, of course, it was not adopted before that time.

Secretary DANIELS. The commandant of each naval district was under orders to protect the district over which he was the commandant.

I beg to call your attention to this plan as it evidences a thorough knowledge and foresight and prudent protection in every possible way that human wisdom could foresee and I invite your attention to the fact that this report, as well as the one of February 4, 1917, closes with the recommendation which was approved and carried out and lived up to during the entire war: "Cooperation with the allies."

The General Board was considering, in view of the imminence of war, precautionary measures for the protection of American shipping, and on March 20, 1917, sent the following report to the Secretary of the Navy:

MARCH 20, 1917.

From: Senior member present.

To: Secretary of the Navy.

Subject: Protection of American shipping.

Reference: Secretary of the Navy's confidential letter, March 20, 1917.

Of the measures advocated by the General Board in its letter of February 4, 1917 (G. B. No. 425, serial No. 666), especial attention is invited to the following, which bear directly upon the protection of our commerce in transit between the United States and Europe:

(a) Escort vessels to deep water from our ports and similarly from deep water to our ports.

(b) Arrange with British and French Governments for the convoy of our merchant ships through the barred zone.

The CHAIRMAN. What is the date of this?

Secretary DANIELS. March 20, 1917, for convoy purposes.

(c) Merchant vessels to proceed on high seas from points of leaving and receiving escorts, depending upon their guns for protection and upon changes of course to follow alternate routes.

(d) Arrange with British and French Governments a code of signals to be used in directing merchant ships as to routes to be followed and points of meeting escorts.

(e) Establish a patrol of the Atlantic coast.

(f) Recruit us to the limit allowed by law for emergencies in order to provide crews for patrols and auxiliaries and fill battleship complements which have been depleted to supply gun crews to merchant ships.

2. In order to obtain what the General Board regards as the greatest measure of protection to American lives and American shipping on the high seas, the General Board invites attention to its letter March 20, 1917 (G. B. No. 425, serial No. 688), and of its previous letters of February 6, 1917 (G. B. No. 425-1, serial No. 553-b); February 17, 1917 (G. B. No. 425-1, serial No. 672); March 17, 1917 (G. B. No. 425, serial No. 683), on the same subject.

CHAS. J. BADGER.

The CHAIRMAN. This has already been put in the record by Admiral Badger.

Secretary DANIELS. Yes; but you wished it in chronological order.

The CHAIRMAN. We have the report.

Secretary DANIELS. Here is the report.

The CHAIRMAN. We already have it. So it will not be necessary to read it.

Secretary DANIELS. All right.

The CHAIRMAN. Also, Admiral Badger noted that there was no record of action by the department.

Secretary DANIELS. The record of performance is the best record on earth, and these things were done.

Observe that this report logically follows the plan of February 4, and invites special attention to the necessity of "arranging with the British and French Governments for a convoy of our merchant ships through the barred zone." This was before Sims had been sent to Europe, and was while the British Admiralty was still declaring that it believed that dispersion was the best policy. The General Board and the Navy Department were, therefore, far in advance of the British Admiralty or any of the Allies in its belief that the best thing was to "arrange with the Allies for the convoy of merchant ships," which America was the first to propose in the report of the General Board, and in the carrying out of which we made possible later on, when the British Admiralty, after three years of rejection of the convoy system, finally adopted it and it was put into effect by all the Allies.

The CHAIRMAN. That is the convoy system?

Secretary DANIELS. Yes.

The CHAIRMAN. Capt. Pratt testifies that that was entirely British, except—

Secretary DANIELS. I am showing you by the acts of the General Board that on March 20 the General Board recommended it and we afterwards carried it out, so it was not entirely British.

The CHAIRMAN. Then Capt. Pratt was mistaken?

Secretary DANIELS. I have not seen his testimony.

The CHAIRMAN. I can show it to you.

Secretary DANIELS. I am giving you the official records of the General Board in which they proposed that on March 20.

Admiral Sims was a member of the General Board and, of course, knew that when he went to Europe the matter of convoy was under discussion, and had been recommended by the General Board, and when he advocated the convoy system he was carrying out the recommendations of the General Board and the policy of the department as stated in the plan of February 4, 1917. I wish to call particularly to

your attention, Mr. Chairman, this report of the General Board which was approved by the Navy Department and carried out in these words:

Arrange with British and French Governments for the convoy of our merchant ships through the barred zone.

It was in the plan of the General Board of the Navy, with the approval of the Navy Department, that the policy of the convoy system was thus laid down and Admiral Sims in advocating it in England was carrying out what he must have known was the recommendation of the General Board and the policy of the Navy Department and it was no discovery of any particular officer in the American Navy, but the General Board's policy approved before Congress declared war.

On this same day the General Board sent the following letter to the Secretary of the Navy, in response to an inquiry from the Chief of Operations asking for suggestions or recommendations so that the department might do everything possible to insure the safety of lives and property of the Nation's citizens. I call your attention to the fact that the General Board's plans here presented are quite in keeping with their basic plans for war with Germany and it will be observed these plans are based upon the report which says: "In accordance with the Black plan," which means war with Germany. I call attention again to the fact that the General Board always had in view, and so did the Department in approving the General Board's recommendations that our most effective policies and efforts must be "Offensive cooperation with the Allies," and this report, as the others, ends with the words, "and arrange for cooperation with the Allies." Observe that every time the General Board held on to this basic North Star of naval policy by which we navigated the Navy into victorious ports. The following is the second plan of the General Board of March 20, 1917, made before the United States entered the war: G. B. No. 425. (Serial No. 688.) Confidential.

DEPARTMENT OF THE NAVY,
GENERAL BOARD,
Washington, D. C., March 20, 1917.

From: Senior member present;

To: Secretary of the Navy.

Subject: Safety of lives and property of United States citizens on board American ships on high seas.

The question orally submitted to the General Board by the Chief of Operations on the afternoon of March 19, 1917, is in substance as follows:

Does the General Board think that under the present situation everything has been done that can be done to insure the safety of lives and property of United States citizens on board American ships on the high seas? If not, what does the General Board recommend be done in addition?

2. The General Board is of the opinion that everything possible under the circumstances for the protection of American lives and property on the high seas is not being done.

3. In its letter G. B. No. 425, Serial No. 666, February 4, 1917, the General Board made recommendations as follows looking to the protection of the lives and property of Americans on the high seas:

"On account of existing conditions, the General Board recommends that the following steps be taken to meet a possible condition of war with the Central European Powers:

"1. Complete complements and allowances of all kinds, first of the A and B fleet, then of the C fleet, and naval districts.

"2. Mobilize the A fleet in the lower Chesapeake and increase it immediately to the B fleet. (See Black plan.)

"3. Dock and repair all ships in reserve and ordinary that will be used.

"4. Arrange for the supply of fuel to the fleet and stock all fuel depots to capacity.

"5. Establish additional recruiting stations and increase personnel of the Navy and Marine Corps to the total number required to supply complements for all the ships built, building, and authorized, and to maintain shore establishments and naval-defense districts, including aviation service, with 10 per cent additional for casualties, as follows: Enlisted force: Navy, 150,000; marines, 30,000. Officers in the proportions prescribed by law.

"6. Mobilize the naval districts, including the Coast Guard and Lighthouse Services, and put patrol vessels, mine sweepers, etc., of the Atlantic coast districts on their stations; no commercial vessels to be mobilized in the Pacific coast districts at present.

"7. Prepare to the utmost detail for the employment of mines along our coast as may be necessary.

"8. Prepare nets and other obstruction for submarines, ready for immediate use, at the Chesapeake Capes, Delaware Capes, entrance to New York Bay, eastern entrance to Long Island Sound, Narragansett Bay, Panama Canal, and Guantanamo. Other places as their need becomes apparent. The General Board considers it of the utmost importance that net protection shall be immediately provided for the fleet during its mobilization in Chesapeake Bay.

"9. Establish immediately the guards at all navy yards, magazines, radio stations, powder factories, munition plants, bases, shipbuilding yards, and naval shore utilities in accordance with the mobilization plans.

"Reduce the force of marines in Haiti and Santo Domingo to the smallest number that can maintain order there, transferring these men to the United States to perform necessary guard duty at navy yards, magazines, radio stations, shipbuilding plants, and to form cadres for the organization of new regiments as recruits are obtained. Organize the advanced base force and complete its equipment.

11. Leave in the Caribbean a sufficient number of light cruisers to keep a lookout for submarines in those waters and for the protection of our interests there. Protect the Canal and Guantanamo as far as possible by the use of mines and where possible by monitors, submarines, and nets.

12. For the present use the greater part of the destroyer flotilla as patrol for submarines in the vicinity of the principal ports or entrances leading to them.

13. Base the submarines at Canal, Guantanamo, and points along the coast in accordance with the Black plan.

14. Rush to completion all naval vessels building or authorized; also build up the Aviation Service as rapidly as possible.

15. Guard all bays and harbors on the coast of Maine to prevent their use as bases of supply. Patrol waters of Haiti, Santo Domingo, Porto Rico, and Danish West Indies; Cuban Coast Guard Service to assist in patrolling all bays and gulfs of the coast of Cuba.

16. Prepare to close entrances to all ports at night and discontinue or change such aids to navigation as may be necessary.

17. Organize a comprehensive system of intelligence service covering the whole theater of war in accordance with the plans of the Office of Naval Intelligence.

18. Take possession of all interned vessels of war of Central Powers, also take control of all commercial vessels of Central Powers now in United States waters.

19. Place under surveillance all citizens of the Central Powers in the Navy or in Government employ in naval establishments and remove them from positions in which they may do possible harm.

20. Arm our merchant vessels for purposes of defense.

21. In accordance with Black plan carry out the following:

(a) Issue proclamation prescribing defensive sea areas and put rules in regard to them in force.

(b) Issue proclamation prescribing press regulations and establishing censorship of cable and radio, including naval control, of all commercial and private radio stations.

(c) Issue President's order in regard to visit and search, capture, etc.

22. And as most important, arrange, as soon as possible, plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce and for offensive naval operations against the common enemy.

4. The General Board renews these recommendations believing as it does that they all have a pertinent bearing upon the protection of the lives and property of American citizens on the high seas, and that the illegal acts and claims of Germany on the high seas have created, in the opinion of the General Board, an emergency equivalent to a state of war. The General Board emphasizes as of first importance the mobilization of the naval forces, material, and personnel; the arming of merchant ships; and arranging for the cooperation with the allied powers, which must exist if our shipping is to be adequately protected in the "barred zones."

CHAS. J. BADGER.

The CHAIRMAN. Now, that plan of March 20, 1917, I find in Admiral Badger's list a minute that there is no record of action by the department.

Secretary DANIELS. I think this is not exactly the same that he has there, but I call your attention to the fact that it closes with the words—

and arranging for the cooperation with the allied powers, which must exist if our shipping is to be adequately protected in the barred zones.

The CHAIRMAN. This refers to safety of lives and property of Americans on the high seas?

Secretary DANIELS. If you will read it you will see what it does.

The CHAIRMAN. March 20—you have already read it?

Secretary DANIELS. Yes; but it refers in this letter, emphasizes it as the plan of February 4, 1917, this basic plan that I am telling you about.

The CHAIRMAN. There is no need of reading it again. It will go into the record.

Secretary DANIELS. There were two reports of March 20.

The CHAIRMAN. And on both of them there was a minute of no action.

Secretary DANIELS. I need not read this?

The CHAIRMAN. No.

Secretary DANIELS. The best record is the record of what was done, and these plans were carried out, nearly all of them. You will observe, Mr. Chairman, that they came in again with the proposition of 150,000 men and 30,000 marines. I will give you the exact date when Congress gave that authorization. The Congress declared that a state of war existed between this country and Germany on April 6. With its usual readiness and foresight of making plans the General Board on the day before Congress declared war forwarded to the Secretary of the Navy the following plan:

APRIL 5, 1917.

From: Senior Member Present.

To: Secretary of the Navy.

Subject: Assistance that United States can give Allies upon declaration of war.

Reference:

(a) General Board's letter, G. B. No. 425 (Serial No. 666), February 4, 1917; steps to be taken to meet a possible condition of war with the Central European Powers;

(b) General Board's letter, G. B. No. 425-1 (Serial No. 553-b), February 6, 1917; Black plan, Tactical Problem I;

(c) General Board's letter, G. B. No. 425-1 (Serial No. 672), February 17, 1917; solution of problem, Black;

(d) General Board's letter, G. B. No. 425 (serial No. 683), March 17, 1917; estimate of the situation as to system of patrol and sweeping best adapted for protection of shipping off port of New York;

(e) General Board's letter, G. B. No. 425 (serial No. 689), March 20, 1917; protection of American shipping.

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The General Board believes that the mission of our Navy when war is declared against Germany will best be determined—

I wish to emphasize this—

will best be determined by arrangement with the allied powers now engaged in war with that country. We should immediately obtain from the allied powers their views as to how we can best be of assistance to them and as far as possible conform our preparations and acts to their present needs, always bearing in mind that should peace be made by the powers now at war we must also be prepared to meet our enemies single-handed. We should not depend upon the defensive, but prepare for and conduct a vigorous offensive.

2. This recommendation has already been made by the General Board, reference (a) and (e), and is as follows:

"And as most important, arrange as soon as possible plans of cooperation with the naval forces of the Allies for the joint protection of trans-Atlantic commerce and for offensive naval operations against the common enemy."

The General Board wishes to emphasize strongly the necessity of such preliminary arrangement in order that economy of effort and concentration of purpose may become effective as early as possible.

The General Board suggests that consideration be given to the following measures in anticipation of cooperation with Allies:

(a) Protect shipping proceeding to and from our ports from submarines or other attack.

(b) Prevent the use of unfrequented bays or harbors on our own coasts, in the Gulf of Mexico, and the Caribbean from use by submarines as bases.

(c) Take over as far as may be desired and practicable the patrol of trade routes in the western, north, and south Atlantic and eastern Pacific, and prevent the exit of enemy merchant ships now finding asylum in the South American ports.

(d) There is no doubt that, if desired by the Allies, sending immediately a number of destroyers to cooperate with the allied powers in the barred zones would greatly add to the moral effect at home and abroad of the participation of the United States in the war. The number of this type which may eventually be sent abroad will depend upon the development of a German offensive on this side of the Atlantic, our immediate needs, and the increase of this type in our Navy.

(e). Should United States troops be sent to Europe, it will be necessary to escort the transports from shore to shore.

The General Board had the first vision of all this work.

At present we are short of transports and convoying vessels, and cooperation in this duty with the Allies would be necessary.

(f) The transportation of supplies for the Entente Allies is of the first importance.

I call your attention to the fact, Mr. Chairman, that this was before war was declared. When the General Board recommended this and said that the transportation of supplies for the entente Allies is of the first importance, that was before we declared war. Now, after we were at war, when we were sending soldiers, while, of course, the sending of supplies was of very minor importance compared to the sending of troops.

The CHAIRMAN. Mr. Secretary, I find this minute in regard to this recommendation of April 5:

June 8, 1917: All recommendations acted upon favorably and the measures taken in accordance therewith, as far as practicable.

Secretary DANIELS. Yes.

The CHAIRMAN. That was adopted in June.

Secretary DANIELS. That was the record made by Capt. Schofield in June. He said in June that they had been carried out.

The CHAIRMAN. In June?

Secretary DANIELS. They had been carried out, but on April 5 it was taken up, and as soon as war was declared, we succeeded at once in doing these things.

The CHAIRMAN. He says, "Recommendations acted upon favorably," dated June 8.

Secretary DANIELS. Yes; that was the note of the fact that action had been taken.

The CHAIRMAN. When were they acted upon, if acted upon?

Secretary DANIELS. Why, at once.

The CHAIRMAN. Where is the record of that?

Secretary DANIELS. Mr. Chairman, I will go back to the early part of it:

The General Board believes that the mission of our Navy, when war is declared against Germany, will best be determined by arrangement with the allied powers now engaged in war with that country.

That is, April 5. On April 11, in the office of the General Board, we held a conference with Admiral Browning, of the British Navy; Admiral Grassy, of the French Navy; and Admirals Benson, Wilson, and Mayo, Assistant Secretary Roosevelt, and all the General Board, and we there carried out, on April 11, the program of this perfect cooperation.

The CHAIRMAN. It had nothing in particular to do with this plan. It was what was done at that particular meeting, was it not?

Secretary DANIELS. In accordance with this plan; yes.

The CHAIRMAN. Then, why was not the memorandum entered which showed that it was accepted before June 8?

Secretary DANIELS. Mr. Chairman, that memorandum of Capt. Schofield just shows that it had been carried out at that time, most of it.

The CHAIRMAN. Two months afterwards.

Secretary DANIELS. It had been; yes. In other words, I will show you dates. I have shown you on April 11 we carried out the first plan. In the office of the General Board, in conjunction with the Secretary and the admirals of the fleet, they carried out this proposition, and in pursuance of that, Admiral Sims had been sent to Europe to secure the plans with the British and the French, so that we could cooperate with them, which we did.

Now, let us go on a little further. "Arrange as soon as possible," which we did, on April 11, not June, but five days afterwards.

The CHAIRMAN. I can not understand why the date June 8, 1917, should be in here if it was adopted before that.

Secretary DANIELS. It is very easy. Capt. Schofield, writing by direction of the Secretary, should have made a memorandum that those things had been done. If he had said on April 11, "This has been approved," he could not have said anything was done, so he made the memorandum afterwards. I do not know why he made it of that date.

The CHAIRMAN. That is, they were not done until June 8.

Secretary DANIELS. On the contrary, I have told you that the most important thing was done on April 11.

The CHAIRMAN. But he could not have said that all the recommendations were adopted before June 8.

Secretary DANIELS. I am going to take them up seriatim. I have shown you that the first one, recommended on April 6, was carried out April 11.

The CHAIRMAN. What was that?

Secretary DANIELS. April 5 the General Board said:

To secure an arrangement with the allied powers now engaged in the war and mutually obtain from the allied powers their view as to how we can best be of assistance to them.

That was their recommendation on April 5. On April 11 the admiral from Great Britain and the admiral from France came to Washington upon our invitation.

The CHAIRMAN. When were they invited?

Secretary DANIELS. As soon as we declared war. They had a conference on April 10 at Hampton Roads with Admirals Mayo, Benson, and Wilson, and then came to Washington and held this further conference, and we there arranged, and in pursuance of that arrangement I gave directions to send the first destroyers over to Europe at once; so this was carried out five days after.

The CHAIRMAN. But it did not of necessity have anything to do with this plan.

Secretary DANIELS. Absolutely. That was in accordance with this plan.

The CHAIRMAN. When war was declared, would you not naturally get together with all the representatives of the allied powers who were near you, regardless of any plans beforehand?

Secretary DANIELS. We certainly should have carried out this plan. This plan arranged it, and we carried it out, and whether we would or not without the plan is a mere academic question.

The CHAIRMAN. What I am trying to find out is whether you were following any definite plan. I do not think that that is conclusive proof that you were.

Secretary DANIELS. It is conclusive proof of that for this reason: Ordinarily, when we discussed the situation with Admiral Grant and Admiral Grassy, and other French, Italian, and allied admirals, the discussions were held in my office or in Operations, but when these gentlemen came down we had our meeting at the office of the General Board, and we all went over there pursuant to this plan of April 5. On April 11 we carried out the first and most important recommendation.

The CHAIRMAN. Whether the meeting was held at your office or at the office of the General Board, you naturally would hold such a meeting immediately after the war was declared, with all the available representatives of the Allies.

Secretary DANIELS. I can not see what you are driving at.

The CHAIRMAN. I do not understand that date of June 8. That is what I am driving at.

Secretary DANIELS. I have explained that. Now read what Capt. Schofield says.

The CHAIRMAN. "June 8, 1917. All recommendations acted upon favorably and measures taken in accordance therewith so far as practicable."

Secretary DANIELS. Capt. Schofield says to you, in effect, by direction of the Secretary I am informing the General Board that all these have been acted upon favorably that were possible.

The CHAIRMAN. "So far as practicable." Therefore, until that date, they could not have been acted upon.

Secretary DANIELS. Why, Mr. Chairman—

The CHAIRMAN. Not all of your recommendations.

Secretary DANIELS. All that were practicable. Capt. Schofield wrote that on June 8. I do not know why on April 12 he did not write and say—which he could have done truthfully; if we had been keeping records for investigation committees we would have done—he could have written truthfully and said, "April 11. First recommendation under General Board's plan of April 5 has been carried

We have had a meeting with the allied representatives and have made arrangements with them—entered into perfect cooperation—and that is done."

He had been giving you a detailed statement he would have said

Then on another day in April he would have said that so many destroyers went abroad, and on another day in April so many things were done, and on another day in May so many things were carrying out the plan. He says, "It has been done." If he had written and said, "This is approved on June 5," I could see the reason, but he says frankly and plainly, "This has been done."

The CHAIRMAN. Then he might just as well have put it down June 8, or June 8, 1919, might he not?

Secretary DANIELS. If he were making a report. Undoubtedly he was writing this report to show that this had been already done, all that was practicable, up to that date. Capt. Schofield's statement is perfectly proper statement. Now, if he had known, or if I had known, that you wished me to show when these things were done, I would not have had Capt. Schofield, by direction of the Secretary, say "This has been done," but I would have had him say, "April 5, the General Board recommended this cooperation; April 11, meeting at which it was arranged. April so and so, they recommended this, and they did it." I would have had him put in the dates.

The CHAIRMAN. Clear up to June 8; this last thing?

Secretary DANIELS. Yes; June 8, said it had been done; a matter of fact.

The CHAIRMAN. But, presumably, as soon as the last things that were practicable had been done, this memorandum was put in, that all recommendations had been acted upon that were practicable?

Secretary DANIELS. I have shown you that the most important one was the primary one of all, cooperation with the Allies, was recommended April 5. It had been recommended before. Every plan of the General Board made said, "As soon as we enter the war this will be done." Now, April 5 specifically they made the plans, which were approved and carried out the beginning of on April 11, and Capt. Schofield has written a history.

The CHAIRMAN. Mr. Secretary, if there had been no recommendation of the General Board on April 5, would you not still have had a conference with representatives of the Allies, and would you not have done just what you did at the conference, and agreed to cooperate with the Allies? I can not see any relation between the two ways.

Secretary DANIELS. The organization of the department is and has been for many years, since Admiral Dewey was made president,

and the General Board was organized, that the General Board should prepare the plans of great operations, and the General Board had prepared the plan of April 5.

On April 11 we met in the office of the General Board and carried out the plan they had proposed. It was a very good plan. It was a very wise plan. It was a plan other people undoubtedly thought about, but it was carried out in pursuance of this actual plan.

The CHAIRMAN. I do not think there is any question about the General Board having made plans or memoranda. The question is whether those plans or memoranda were adopted by the department.

Secretary DANIELS. Capt. Schofield tells you the fact.

The CHAIRMAN. The fact that you did one thing that was mentioned in the report does not show that it had anything to do with that report.

Secretary DANIELS. I am going to show you that we not only did one thing, but we did everything practicable, and we did it before June 6, so that Capt. Schofield is not writing down there something that we are doing June 6. He is writing what has been done since April 6.

The CHAIRMAN. What I am getting at is, what plans were made before war was declared. This, of course, was the day before war was declared, which is practically the same thing and nothing was carried out there of course until after war was declared.

Secretary DANIELS. That recommendation was made on April 5, and on April 11 we carried out the first recommendation.

The CHAIRMAN. War was declared the day after the 5th.

Secretary DANIELS. Yes.

The CHAIRMAN. Then you could not carry out that plan until after war was declared. Now, that is the kind of plan that I am particularly discussing. What I am trying to get at now is the plans which were made by the General Board and were put into operation by the department before war was declared. This of course does not cover that subject at all.

Secretary DANIELS. Mr. Chairman, do you mean to say that the department could put any plan in operation against the Central Powers, in an overt act, before Congress declared war?

The CHAIRMAN. In the way of preparation, most assuredly.

Secretary DANIELS. In the way of preparation I assure you that we did everything that was humanly possible.

The CHAIRMAN. That is a question, Mr. Secretary.

Secretary DANIELS. I say I have shown you that. You may not accept that fully. That is a matter of opinion, but I have given you the record, I have given you the data, I have given you the facts.

The CHAIRMAN. This particular plan of course is not one of those, because this could not have been carried out until after war was declared.

Secretary DANIELS. This particular plan was made the day before war was declared, to be carried out if Congress would give the authority.

The CHAIRMAN. There was no question about Congress giving you the authority.

Secretary DANIELS. But could the Secretary of the Navy issue an order to send a ship out against the enemy until Congress actually declared war?

The CHAIRMAN. Certainly not.

Secretary DANIELS. But to show you the foresight we had, we knew as well as you do—

The CHAIRMAN. The foresight of April 5. War was declared April 5, and it was very well known for a number of weeks before that that immediately upon the meeting of Congress war was to be declared.

Secretary DANIELS. I have given you the statement in 1915—my letter to the General Board telling them to get ready for war—and have given you the statement of February 4, of an actual basic working plan, and I have invited you and your committee, in secret session, to take up with Admiral Badger the Black plan, composed hundreds of pages, with maps and everything, that will show you that the General Board lacked nothing in preparedness.

The CHAIRMAN. That is what I am looking for. That is what I want to get, but this is not in that category.

Secretary DANIELS. This is an open plan to make public, and you will see here, as I say, that on April 5 the General Board made a plan, and, properly telling, what you and I thought, that war would be declared. We did not know whether it would be declared April 5, April 7 or April 8. We did not know how quickly Congress would act. It acted immediately, and on April 6 we had the plan. And the plan made weeks ahead, and then, as the last immediate war we had the plan of April 5, which we carried out April 11.

CHAIRMAN. That was practically a war plan after war had been declared.

Secretary DANIELS. All these plans were war plans. I have not shown you a plan here that is not a war plan.

CHAIRMAN. But I want the plans before war was declared—show what you did before.

Secretary DANIELS. I have given you the plans. What are the plans you have given you except war plans, before the war?

CHAIRMAN. They were plans for preparedness, for getting to know what to do when war was declared.

Secretary DANIELS. Getting ready to fight.

CHAIRMAN. You could not get ready very much between April 5 and April 6.

Secretary DANIELS. With the other plans we had gotten ready. Our plans were "ready." The plan of April 5 was "Aim." The plan of April 11 was "Fire."

CHAIRMAN. Mr. Secretary, I am looking for certain information. I can tell you that as far as the information I am looking for, the plan has very little to do with it.

Secretary DANIELS. I do not know what information you are looking for. I have told you that we found—

TRAMMELL. I think the best way to settle the controversy is to stick to the facts, and the chairman can put his own conclusion what you did before, and others can put their construction whether they were war plans or peace plans or joy-ride plans. Just state the facts. That seems to be the best way. The chairman does not seem to think those plans had anything to

do with getting ready for war. That is all. He has expressed himself several times to that effect.

The CHAIRMAN. That is what I want.

Senator TRAMMELL. Some others might entertain different views. I understand you do not seem to think any of these plans that the Secretary has made reference to had any reference to preparation for war.

The CHAIRMAN. I have not made any such statement. I want to find out what plans had reference to preparation for war.

Secretary DANIELS. Mr. Chairman, if you will read the plans I have given you, all the plans I have read were war plans, gotten up by the war-making body of the Navy, and nothing else.

The CHAIRMAN. Now, Mr. Secretary—

Secretary DANIELS. I have not finished yet.

The CHAIRMAN. Very well; finish.

Secretary DANIELS. But I shall go back to this plan of April 5 to show you that it was carried out very promptly:

(a) Protect shipping proceeding to and from our ports from submarines or other attack.

That was done.

(b) Prevent the use of unfrequented bays or harbors on our own coasts, in the Gulf of Mexico, and the Caribbean from use by submarines as bases.

At the request of the British admiral and the French admiral, on April 11 we agreed to take over the patrol of this entire coast from Halifax to Brazil. Admiral Browning and Admiral Grassy said, "The biggest thing you can do in this war at once, and the thing we request you to do above all others—we have had to keep our ships out of the 3-mile limit here since 1914 to protect our shipping as it left the ports carrying munitions and supplies. Now, if you will release our ships, so that they can go back home into the war zone, if you will take over the patrol of this coast to protect this shipping, that is the important thing we wish you to do."

And at that conference, Mr. Chairman, we had upon the walls very large maps of the entire coast from Halifax to Brazil, showing where there were British ships, showing where there were French ships, and where they were protecting their shipping, and we agreed to take that all over as rapidly as they desired us, and let them send their ships back to France and England. So that was done at once, not in June but in April, and it was of the highest importance that we should prevent the use of unfrequented bays and harbors on our own coast, in the Gulf of Mexico, and the Caribbean for use by the submarines as bases. At that time, you will remember, submarines had already been over to this country. We knew they could come, and the fear on the part of the British, the French, the Italians, and ourselves was that in the unfrequented bays of Maine, in those little bays and harbors, they might make a submarine base, or that they might make it down in some part of Santo Domingo, or somewhere in the Caribbean waters, where there was a very sparse population, and we had organized the Coast Guard, with all their agencies—did it at once—all the way along the coast to watch out, to protect this coast, so we did it at once.

(c) Take over, as far as may be desired and practicable, the patrol of trade routes in the western, north, and south Atlantic and eastern Pacific, and prevent

the exit of enemy merchant ships now finding asylum in the South American ports.

We did that in April and May.

(d) There is no doubt that, if desired by the Allies, sending immediately a number of destroyers to cooperate with the allied powers in the barred zones would greatly add to the moral effect, at home and abroad, of the participation of the United States in the war. The number of this type which may eventually be sent abroad will depend upon the development of a German offensive on this side of the Atlantic, our immediate needs, and the increase of this type in our Navy.

At that meeting of April 11 we ordered a division to go over. On April 24, I think it was the date—I will make certain of the date—Admiral Sims telegraphed:

The war council of the British Admiralty say if you will send over twenty-odd destroyers we can put down the submarines in the critical area and keep them down.

We sent 28 destroyers.

(e) Should United States troops be sent to Europe it will be necessary to escort the transports from shore to shore.

When they started we escorted them from shore to shore.

(f) The transportation of supplies for the Entente Allies is of the first importance.

We gave protection to them. Next—

Requisition all enemy ships detained in our ports—

Which we did—

and seize enemy converted ships interned—

Which we did—

repair them and place them in service as transports or supply ships.

Which we did. Take the *Leviathan* alone. She carried over nearly 100,000 troops.

(g) Mobilize the shipbuilding industries, both commercial and governmental, so that the energies of the Nation be extended in the directions needed to provide vessels to combat submarines.

That was done. As a matter of fact, when the Shipping Board got into the fight pretty actively, Mr. Schwab and Mr. Hurley and the others in charge of it said that the reason they could not act more rapidly was that the Navy Department had commandeered 70 per cent of the shipbuilding facilities in America, as we had done, so we were prepared.

(h) Keep constantly in view the possibility of the United States being in the not distant future compelled to conduct a war single-handed against some of the present belligerents and steadily increase the strength of the fighting line, large as well as small vessels—doing this with as little interference with the rapid building of destroyers and other small craft for the Navy and cargo ships for the merchant marine as possible.

(i) Manufacture the number of medium-caliber guns which will be needed for merchant shipping and patrol craft.

That was all done, and nearly all of it was done in April and May, so that this plan—

The CHAIRMAN. April, May, and what?

Secretary DANIELS. April, May, and June, most of it in April and May; every policy in April and May actually carried out, most of

it, and Capt. Schofield very truly says on June 6 that this had been done. This plan was approved, and, like all the preceding plans, it says:

The General Board believes that after war is declared with Germany we should immediately obtain from the allied powers their views as to how we can be of best assistance.

The General Board laid special emphasis upon the American policies as outlined by the President of the United States in his letter to Admiral Sims, and in his speech to the fleet with reference to a bold and aggressive policy. The General Board said:

We should not depend upon the defensive, but prepare for and conduct a vigorous offensive.

That was April 5, 1917, before we entered the war. The General Board then had the vision which the Navy Department had, and held to and carried out from the beginning to the end of the war.

The CHAIRMAN. The day before war was declared?

Secretary DANIELS. Yes. If we went into war we should not depend upon the defensive, but prepare for and conduct a vigorous offensive.

Admiral Badger in his testimony before your committee states that he had a letter from Capt. F. H. Schofield, one of the assistants to the Chief of Operations, in which Capt. Schofield, "by direction of the Secretary," said:

All recommendations acted upon favorably and measures taken in accordance therewith so far as possible.

This plan of April 5, as will be observed, follows consistently along the previous lines, particularly along the line of the plan of February 4.

Of course, the General Board was busy, as was the planning section of Operations from this time on and made various other studies and plans, as was shown you by Admiral Badger in his very illuminating statement and list of the plans studied, the General Board going back particularly as far as July, 1914, when Austria-Hungary declared war on Serbia. This list of studies and plans alone made up eight pages of his testimony in the hearings, and if it is the desire of the committee Admiral Badger will be pleased to show you, in executive session, every one of these studies and plans of statement of policy, all of which were in addition to and in accordance with the basic plans, some of which I have presented to you, and others which are confidential, which will be shown you in executive session, and explained to you in detail by Admiral Badger.

Of course, the great plans, embodied in hundreds of pages, are secret and confidential, and you will not wish them embodied in the record, but Admiral Badger will show them to you and explain them to you at such time as will suit the pleasure of the committee.

Admiral Badger, in his testimony before your committee, referred to the frequent charges that have been made about the lack of scientific plans for the conduct of war, made the following statement, to be found on page 2621-f:

The gist of the criticism of the operations of the Navy Department and the Navy now under investigation is contained in the charges of unpreparedness to enter the war; absence of war plans or policies at the commencement

of the war; vacillating and hand-to-mouth policies and plans after war was declared, resulting in extending the duration of the war, and thereby enormously increasing the Allied war losses in lives, ocean tonnage, and money.

To each and all of these I enter emphatic denial. I do not mean to say that we had attained perfection in the Navy—we never shall; that no errors of judgment or mistakes were made—they will always occur, but I assert that the Navy when it entered the war was, as a whole, well prepared and administered.

Now, this is the statement of Admiral Badger, commander in chief of the Atlantic Fleet and head of the General Board.

In the statement having given you a very clear and very full statement showing that the General Board failed in nothing in the making of basic plans and policies recommended to the department, and the department failed in nothing in approving the carrying out of these basic plans which set forth the essential policies that governed the Navy Department in its conduct of the World War, I will now present to you the 13 plans which should be called "operative" plans, drawn up in the Office of Operations before Congress declared war. These plans were drawn up in what is known as the planning section of the Office of Operations, at the head of which in the days before the war was Capt. W. V. Pratt, whose clear and able testimony before your committee has shown conclusively that just as the General Board and the department were preparing exhaustive and wise basic plans and policies, the Office of Operations was quite as diligent in preparing operative plans in keeping with these policies. The plans which were prepared in Operations, most of which were under the direction of Capt. Pratt, and many drawn up by him personally, are as follows—

The CHAIRMAN. Capt. Pratt has put those plans in.

Secretary DANIELS. I am reading the preface to these plans.

In his testimony Capt. Pratt, answering fully and completely the widely advertised and incorrect statement that the department had no plans, said:

We were there doing the work and we know what we are talking about.

And Capt. Pratt, referring to the visionary statement of Admiral Fiske about plans, said:

There was a comment made by Admiral Fiske, in which he submitted the plan under which the Office of Operations was to be organized, and he rather inferred that we had no plan up to that time, and no real plans section in the Office of Operations up to that time, which he submits those papers, which as a practical war measure have no real value at all. He does not know anything about it. We were there, doing the work, and we know what we are talking about. (See pp. 3299-3300.)

I want to set at rest any doubt that may have arisen as to whether we had plans, as far as being capable of coping with the questions that came up.

Having given you the 13 plans prepared under the direction of Capt. Pratt in Operations before we entered the war, I will present here the operative plans prepared in the Office of Operations by direction of Capt. Pratt during the conduct of the war.

The CHAIRMAN. As these have already gone into the record, there is no need of putting them in again.

Secretary DANIELS. You might here instruct the stenographer to say that the Secretary at this point presented the 13 plans.

The CHAIRMAN. Yes.

Secretary DANIELS. Presented by Capt. Pratt in his testimony, which will be found on pages so and so.

The CHAIRMAN. Very well.

Secretary DANIELS. That will save printing them again.

The CHAIRMAN. Yes.

Secretary DANIELS. And the Secretary also presented the following plans after we entered the war, which were presented by Capt. Pratt in his testimony, to be found on the following pages.

I conclude with these words:

Most of these plans were made in the months of April, May, and June, and it will be observed that these plans met conditions as they arose from day to day with a vision and foresight which must have impressed your committee and the country that the planning section of the Office of Operations was fully able to cope with every situation as it arose and even to look ahead and be prepared for every possible contingency that human wisdom could foresee.

After a careful reading of these basic plans and policies, if the wise policies of Operations are not sufficient to convince the greatest doubting Thomas that the American Navy was prepared with plans, I will invite the committee to hold an executive session with the General Board, and Capt. Pratt will come again, if necessary, and fully explain the great work which was done in Operations in the making of operative plans necessary to meet the changing conditions and which aided in the resulting in victory over the enemy.

Mr. Chairman, just as the close of the hearing Saturday you asked me a question. I said in my testimony that Capt. Palmer had said that there never was a time when a vessel was ready that we did not have the officers and men ready for it. You asked me to present the testimony of Capt. Palmer, his exact words. Of course, you did not question my statement—

The CHAIRMAN. I simply wanted it for a reference.

Secretary DANIELS. You did not recall it. I have here the complete statement of the questions and answers, as found on pages 1142-1145 of the typewritten record, as follows:

Senator TRAMMELL. You had charge of the personnel. Did you provide the necessary men for manning the ships and destroyers and for other duties as they were required?

Capt. PALMER. I had the personnel actually ready at the seaports to be put on the vessels before the vessels were ready. We never had a delay of a vessel on account of not having the officers and men; but I will not say that they were very highly trained, because with a very short war such as we had, and with the ordinary idea that it takes about two years to train a recruit so that he will be an ordinary man-of-war's man, and 10 years to train officers, you can see that we did not have any more trained men than we had in the beginning.

Senator TRAMMELL. You provided them, and they had at least sufficient training to meet the situation?

Capt. PALMER. To get the ships going. I do not mean that they would meet the situation in the most efficient way, by any means; but they were the best under the circumstances, with the amount of time given for training. They trained them intensively at all these places, and they did very fine work.

Senator TRAMMELL. The point I wanted to get at was, were they sufficiently trained and equipped to get the desired results?

Capt. PALMER. It would be pretty hard to tell, Senator. I know that in the specific cases we had people—for instance, Admiral Sims said that a certain bunch he had on little yachts or trawlers, I have forgotten which, over on the French coast, were very inefficient; and I think he used the words, "Their inefficiency was deplorable." I have forgotten whether it was on yachts or

trawlers; some small vessels. But, at any rate, I would not be sure that he was not correct in that. I do not know about the actual adjectives in the case, but I think there were a good many cases where there was a good deal of inefficiency among the organizations; that is, I mean among the individuals in organizations.

Senator TRAMMELL. As a matter of fact, would not that apply to people in the Regular Navy? Would it not apply to some particular individual connected with any man's staff? Some particular individual connected with your bureau, for instance, would not measure up to the highest standard?

Capt. PALMER. I will agree with you on all except my bureau. [Laughter.]

Senator TRAMMELL. That is what I thought.

Capt. PALMER. Oh, yes—

Senator TRAMMELL. I did not mean to reflect on anybody, but human nature and the frailties of human nature and the accomplishments and achievements of human nature run throughout the Navy just as through any ordinary, everyday bunch of men; that is the point I am making.

Capt. PALMER. That is exactly right.

Senator TRAMMELL. But the broader point is, taking it as a whole, did not the men that you provided accomplish results?

Capt. PALMER. I should say that the results accomplished by the Navy were perfectly wonderful during this war. I would say they were accomplished in spite of the obstacle of not having people to start with, and having a short time to train, and their newness in the war. I think the results were wonderful.

Senator TRAMMELL. That is my opinion. I would not pick out some isolated case of some fellow that made a failure, and cite it as the precedent for the Navy or for the reserve forces.

Capt. PALMER. No, sir.

Senator TRAMMELL. I would take it into consideration as a whole.

Capt. PALMER. I know what a fine showing our battleships, for instance, and our destroyers, made. In fact, all the comments we have seen in the papers and in books, bear that out; and Admiral Sims, for instance speaks of the wonderful lot of men we had on our destroyers, and that they were ready for anything. Also Admiral Rodman says about his people in the battleship force in the North Sea; and I know we have occupied a very high position with the British grand fleet; I could mention also the mine forces; I could go on and name all the forces.

The CHAIRMAN. Is that all?

Secretary DANIELS. That is not all of Capt. Palmer's testimony, but it is all with reference to that.

The CHAIRMAN. Admiral Palmer testified that in order to get these men he had to the battleships and take six officers from a number of them, and that the men had to be taken off battleships also for armed-guard service, and that the efficiency of the existing Navy had to be cut down in order to get these men, but in spite of that he did get the men.

Secretary DANIELS. But you must bear in mind that Capt. Palmer and the Bureau of Navigation estimated that we would need 93,000 men in the war. As a matter of fact, Mr. Chairman, with all our great personnel in that war, only 107,000 men were engaged in what Capt. Palmer, or the General Board, or the Bureau of Navigation, or any other naval officer supposed they would be employed in, in war; 107,000 were all the men we employed on fighting naval ships. The balance were employed in the character of service which we never expected the Navy would be called upon to do.

The CHAIRMAN. Now, Mr. Secretary, we have taken a very long while to get what I asked for, and that is this schedule of plans.

Secretary DANIELS. I have given them to you very fully.

The CHAIRMAN. Very fully; and I take it, from the data that you have given, that the plans that the Navy had were the General Board plans which they had on February 1 and which you say were

brought up to date at that time, and, in addition thereto, the plan of February 4, the plan of—what was the one after that?

Secretary DANIELS. Well, we had one of February 4, one of February 10, and one of February 17.

The CHAIRMAN. No; one minute. We have here the one of February 17, which was the one asked for on February 10. Was there anything between February 4 and February 17?

Secretary DANIELS. We asked for it on the 4th and got it on the 17th of February.

The CHAIRMAN. Was there anything between February 4 and that?

Secretary DANIELS. I think not.

The CHAIRMAN. Then there was the plan of February 4——

Secretary DANIELS. Yes.

The CHAIRMAN. The plan asked for on February 10——

Secretary DANIELS. An amplification on the tenth.

The CHAIRMAN (continuing). And given to you on the tenth, which was an amplification, you say, of the plan of February 4, and which was lost?

Secretary DANIELS. Yes.

The CHAIRMAN. A plan of March 17, the two plans of March 20, and plan of April 5?

Secretary DANIELS. Yes, sir.

The CHAIRMAN. Those were the plans of the General Board that the department had?

Secretary DANIELS. And the Black plan, of a war with Germany.

The CHAIRMAN. That was included, was it not, in the plan that they had on February 1, when the ambassador was given his papers? That would be included with the plan that the board had at that time?

Secretary DANIELS. They only made reference to that. They had that plan.

The CHAIRMAN. They had that?

Secretary DANIELS. But also, which you can see in executive session, they had every possible plan for war in the Atlantic, in the Pacific, and in the Caribbean.

The CHAIRMAN. For a war with Germany?

Secretary DANIELS. Oh, I told you the other day that I could only speak of the war with Germany, because that is the only country that I would like to speak about; but for war with any nation which the Congress directed them to take part in.

The CHAIRMAN. But specifically for a war with Germany?

Secretary DANIELS. And specifically for a war with any other nation which might go to war with us.

The CHAIRMAN. Specifically Germany?

Secretary DANIELS. I said specifically, and specifically any nation which we might have war with in the Atlantic, in the Pacific, or the Caribbean.

The CHAIRMAN. And in addition to this there were the 13 operational plans you have put in this morning?

Secretary DANIELS. Yes.

The CHAIRMAN. And those, with the plans I have already enumerated, were the plans that the Navy Department had to go on, for war, before the war began.

Secretary DANIELS. Yes. I can not imagine, Mr. Chairman, looking back upon it, anything else that the General Board could have done. I look back upon it and marvel at their vision, and at the precision of their plans, and at the fact that they were humanly as perfect as it was possible for naval statesmen to make.

The CHAIRMAN. I do not think that the contention has been that the General Board did not prepare plans, but that the department did not use those plans.

Secretary DANIELS. I have shown you that they did use the plans.

The CHAIRMAN. That is also a matter of opinion.

Secretary DANIELS. I have given you the facts.

The CHAIRMAN. Other witnesses have testified in a conflicting way about it.

Secretary DANIELS. I have given you the facts, and I have not given you an opinion.

The CHAIRMAN. I say, that is a matter for the opinion of the committee.

Secretary DANIELS. Of course, you can pass upon it.

The CHAIRMAN. Now, do you say that between August, 1914, and January, 1917, you had plans for war with Germany, we being hypothetically in association with the Allies, and the war being the kind of a naval war that existed in 1916. ✓

Secretary DANIELS. I will refer you to the Black plan that we had, and the other confidential plans, when Admiral Badger comes before your committee giving all possible conditions and making ready for them. L

The CHAIRMAN. Yes; but would you say we had plans for war with Germany, we being hypothetically in association with the Allies, and the war being the kind of a naval war that existed in 1916?

Secretary DANIELS. I never answer a question when the word "hypothetically" is used, unless it is explained, because hypothetical—

The CHAIRMAN. That means, hypothetically, that we should have the Allies with us in the war.

Secretary DANIELS. You will observe, Mr. Chairman, that in every plan that I have read, from the General Board, whenever any reference is made to going into the war they state, most important of all, as soon as possible we should have arrangements made with the Allies to ascertain what their plans are, so that we might adjust our plans to work with them. Now, of course, before we entered the war, as Ambassador Page wrote—he said, for example, that the British Admiralty, after we broke relations with Germany, all of us thought that was the prelude to war; but he said even then the British would not give to our attachés their plans, and what they were doing; but if we would send over an officer, by word of mouth they would do so. We could not have made a plan to work with the Allies without consultation with the Allies and without perfect cooperation with them. ✓

The CHAIRMAN. I asked you, Mr. Secretary, whether in your opinion we had any plans for a war with Germany, which would include the cooperation of the Allies with us, and the war being the kind of naval war which existed in 1916. Yes or no will answer that.

Secretary DANIELS. I decline ever to answer yes or no in any investigation, Mr. Chairman. I remember the case of the man who

was asked the question whether he had stopped beating his wife, and was told to answer yes or no. I will not answer yes or no.

The CHAIRMAN. I do not think this is such a case.

Secretary DANIELS. I know it is not, but I was using that as an illustration.

The CHAIRMAN. This is a perfectly definite question.

Secretary DANIELS. Yes; and I will give you a perfectly definite answer, but you can not tell me to answer yes or no.

The CHAIRMAN. You can answer whether there were such plans, in your opinion.

Secretary DANIELS. I have a right to answer as I please. Ask me questions, and I will answer them all definitely and with fullness; but you can not say "Mr. Secretary, you answer yes or no," any more than I can tell you what questions to ask me.

The CHAIRMAN. You must answer them, Mr. Secretary, in a way to give me the information I ask for.

Secretary DANIELS. I am the Secretary of the Navy, and I shall answer you in accordance with the duty of my office, and fully; but you can not, Mr. Chairman, tell me to answer yes or no, and you can not intimate to me how I shall answer your questions.

The CHAIRMAN. Our powers are to summon witnesses——

Secretary DANIELS. And to ask them questions.

The CHAIRMAN (continuing). And to get information from them.

Secretary DANIELS. And my powers are equally plain, that I am to answer your questions in my own way.

The CHAIRMAN. And you must give the information asked for. You are on oath to do so.

Secretary DANIELS. I am on oath, and therefore I decline to let you tell me to answer yes or no.

The CHAIRMAN. I ask you questions, and I would not care if you would answer them so as to convey the information, but that you do not do. I would much prefer to have you answer them in that way.

Secretary DANIELS. And I would much prefer not to be told how to answer questions.

Senator TRAMMELL. I think if a witness is asked to answer questions vocally yes or no, he is not so likely to give a correct impression as he is by an explanatory answer; and the purpose of the committee, I presume, is to get at the facts.

The CHAIRMAN. Yes.

Senator TRAMMELL. And not to get some desired answer.

Secretary DANIELS. I will answer your question.

The CHAIRMAN. Yes.

Secretary DANIELS. The General Board had perfect and full plans for a war with Germany from the time the Germans—from the time the Austrians had trouble with Serbia. The General Board was studying all the naval matters with reference to that war. The General Board was preparing these data. They had full information, the fullest they could have imparted to them by the naval attachés in Europe. They made every plan possible for a war in which they might be employed, and in every report they made to me they said "As a matter of primary importance, when we enter this war we must consult with the Allies and cooperate with them."

The CHAIRMAN. There is a matter that calls us over to the Senate, now, Mr. Secretary, I will take up that matter this afternoon.

Secretary DANIELS. To what hour will you adjourn?

The CHAIRMAN. We will adjourn until 2 o'clock.

Secretary DANIELS. Very well.

(Thereupon, at 12 o'clock m., the subcommittee took a recess until 2 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee reconvened, pursuant to the taking of the recess, at 2 o'clock p. m., Hon. Frederick Hale (chairman) presiding.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. Mr. Secretary, this morning before closing I asked you questions a number of times and I was about to ask the reporter to read the answer that was given just before we adjourned, but another reporter took it down and he has not the minutes with him. Can you give me substantially what your answer was?

Secretary DANIELS. Well—

The CHAIRMAN. Perhaps to explain the question I might say that the purpose of it was this: My understanding of the naval situation in 1916 was the following: After the Battle of Jutland the German fleet was cooped up by the more powerful surface fleet, and its ships could not come out; they were blockaded, but the submarines were coming out all the time and submarine warfare was being carried on in the war zone to a very great extent, and that was the principal phase of the naval warfare at that time. Now, you have told us that the plan of the department was in case we got into the war to assume an offensive. What I want to know is whether you had on the 1st day of February, 1917, or about that time, detailed plans all prepared so that the Navy could assume the offensive in submarine warfare and especially in areas where that submarine warfare would be carried on.

Secretary DANIELS. You are speaking, as I understand, of the Battle of Jutland—

The CHAIRMAN. Yes; but what I want information on is whether you had those plans up to the time Bernstorff was given his passports.

Secretary DANIELS. We had plans of a war with Germany in the "Black" plan, which Admiral Badger will take up with you.

The CHAIRMAN. And did these plans cover antisubmarine warfare?

Secretary DANIELS. They covered whatever warfare the General Board thought we would be likely to have to meet.

The CHAIRMAN. You do not know whether they covered antisubmarine warfare or not?

Secretary DANIELS. Those plans are confidential, and when you receive them in executive session you will see all phases that they covered.

The CHAIRMAN. I do not think there will be any question of breaking in on confidential plans for you to inform the committee whether

at that time we had plans which covered the warfare against the submarine.

Secretary DANIELS. We had plans covering any possible warfare in the Atlantic or Pacific.

The CHAIRMAN. Including plans against submarines?

Secretary DANIELS. And the General Board's plans will be presented to your committee.

The CHAIRMAN. I am asking you the question whether it included submarines, because I want to ask you some general questions about that.

Secretary DANIELS. Of course, the plans covered, as I told you this morning—every possible plan we had always said, "Consult immediately with the Allies with the view of securing the complete co-operation." You presume, in your question, that after May 1, 1916, the only possible method of warfare was the submarine warfare.

The CHAIRMAN. That was one principal kind of warfare.

Secretary DANIELS. Yes; and after the Battle of Jutland that was not then the opinion of the experts of Great Britain or the world. They were expecting and hoping for another battle, and also they were expecting always that the German cruisers would seek to come out, so that the General Board was making its plans upon the line of battleships, dreadnaughts, submarines—any kind of warfare that we might be engaged in.

The CHAIRMAN. And I asked you specifically if they did make plans for antisubmarine warfare.

Secretary DANIELS. Why, they had plans for antisubmarine warfare, dreadnaught warfare, cruiser warfare—any kind of warfare. I say.

The CHAIRMAN. Now, on page 2710 of the testimony appears the following question:

The CHAIRMAN. Was any plan drawn up to meet the case of a war in which the United States naval forces would be used almost exclusively against submarines?

Admiral BADGER. No, etc.

Secretary DANIELS. Used exclusively, you say?

The CHAIRMAN. Used almost exclusively against submarines.

Secretary DANIELS. Well, if Admiral Badger made you that statement, of course, that is correct.

The CHAIRMAN. It was practically all—

Secretary DANIELS. But the Navy warfare is never exclusive warfare. No wise man, making plans for a warfare, would be so foolish as to make an exclusive naval fight against a particular class of ships. If your enemy knew that you were exclusively making your plans to fight a submarine, why, of course, he would send something else.

The CHAIRMAN. What would he send?

Secretary DANIELS. He might make a dreadnaught fight.

The CHAIRMAN. What would he do in that particular case?

Secretary DANIELS. Well, I would say this about that, that I do not think that we can go very far in hypothetical cases of what an enemy would do if this or that happened. I do not belong to the order of ifers, but I say that our plans were to fight the Germans, and to get in cooperation at once with the Allies for the best possible

cooperation against any kind of naval warfare we should have to come up against.

The CHAIRMAN. Admiral Badger continued in his explanation—I simply read the “No” at the first of it, and then he explained afterwards. He said:

No; because it was believed that we should have to do what the people abroad were doing; to follow their lead. You understand that we entered the war under this handicap, that we came in to cooperate after the others had been at war three years, etc.

Now, from your answers am I to understand we were thoroughly prepared with plans for antisubmarine warfare or not, Mr. Secretary?

Secretary DANIELS. We were entirely prepared with plans for any kind the naval strategists could see.

The CHAIRMAN. For antisubmarine warfare?

Secretary DANIELS. Not specifically; any kind, or every kind.

The CHAIRMAN. Mr. Secretary, do you not think as a committee we have a right to get information on these matters? You have told us they had ample plans. Now, I want to know what those ample plans were.

Secretary DANIELS. Admiral Badger will present them whenever you send for them.

The CHAIRMAN. You are the witness on the stand to answer this.

Secretary DANIELS. But I am telling you the General Board had the black plan.

The CHAIRMAN. That does not mean anything. We have not seen the black plans. We want to find out what you did have.

Secretary DANIELS. I will have them here in five minutes or in the morning.

The CHAIRMAN. At a later period we intend to see them, but I want to get from you the information whether you had these plans we are asking for.

Secretary DANIELS. I know what you are asking me, but I know what I am answering you. You asked me if we had any plans. The dreadnaughts—

The CHAIRMAN. Is it not your purpose to assist the committee in this investigation?

Secretary DANIELS. It is my purpose to get the committee the fullest possible information.

The CHAIRMAN. Do you think we get the information when you do not answer our questions?

Secretary DANIELS. Absolutely. I tell you we had plans for any kind of warfare in the black plans.

The CHAIRMAN. It has been said there seems to be a good deal of smoke screen to keep from getting information. It seems to me you are not in a position where you want anything of that sort.

Secretary DANIELS. I have given—

The CHAIRMAN. Please let me finish.

Secretary DANIELS. I have given you this morning—

The CHAIRMAN. Please let me finish, Mr. Secretary. You have stated heretofore that none of these charges against the Navy was substantiated at all; that the Navy Department was clear in every respect of any of those criticisms. Now, that being the case, there

can be nothing to hide in any way. I am sure you would not want to hide anything. You are the very last one to want to do that.

Secretary DANIELS. I have shown you this morning we have everything open—everything open.

The CHAIRMAN. And it seems to me when we are asking for definite answers to questions that you should want to give them.

Secretary DANIELS. And I have answered them fully and given you all the plans.

The CHAIRMAN. But you do not answer them so we can get any information from your answers.

Secretary DANIELS. If you can not get any information from what I have answered you, I do not know where you will get it. It is very full and complete.

The CHAIRMAN. Your answers have little to do with the questions and you put in a lot of additional testimony.

Secretary DANIELS. I answer exactly your questions. You asked me if we had plans.

The CHAIRMAN. I do not think you do, Mr. Secretary.

Secretary DANIELS. That is a difference of opinion.

Senator TRAMMELL. I would like to get a little light. The Secretary has stated he would produce these plans. Unquestionably the best evidence is the plans themselves. If we are to have them before us why is it that the chairman desires to have a duplication of that and have a recital from the Secretary as to what they contain, when we are going to have them before us.

The CHAIRMAN. Because you were not here yesterday, Senator Trammell, and when these plans are introduced they will not be put in the record. They are to be introduced in executive session. Now, I want him to show what we have and what we have not.

Senator TRAMMELL. You want him to disclose the plans?

The CHAIRMAN. I do not want him to disclose the plans. I do not want him to disclose anything confidential, nor is it confidential for him to disclose whether we had plans to take care of the submarine situation in 1916.

Secretary DANIELS. My answer was very plain that the General Board had plans to meet any possible method of warfare on the seas that these naval statesmen could foresee, made since the General Board was established, kept up to date, from 1914 up to 1917.

The CHAIRMAN. Now, will you tell me, Mr. Secretary, why you are unwilling to tell me specifically whether they had antisubmarine plans?

Secretary DANIELS. I am not unwilling to tell you anything.

The CHAIRMAN. Then will you tell me whether they had anti-submarine plans?

Secretary DANIELS. I told you they had plans to meet all exigencies, and when that Black plan is brought here you will see it.

The CHAIRMAN. I want this for the record. The Black plan does not go into the record.

Secretary DANIELS. If you examine the plans you will see we had the plans. What you want me to say—

The CHAIRMAN. I do not want you to say one way or the other.

Secretary DANIELS. I know what you want me to say.

The CHAIRMAN. What? I do not.

Secretary DANIELS. You want me to say whether before we entered the war we had all the information from the Allies, and whether we

d proposed this thing in the North Sea or this thing in another

I tell you we had plans of the General Board——

The CHAIRMAN. I am not asking you about information from the files. I am asking you whether you had the plans.

Secretary DANIELS. Plans for what?

The CHAIRMAN. To cover the antisubmarine warfare adequately.

Secretary DANIELS. I have told you we had plans to handle dread-
ght, antisubmarine, cruiser, mines—any war that might come up.

The CHAIRMAN. Could you not answer anything more, including
something that might be helpful? Did you include submarines?

Secretary DANIELS. Everything, I said.

The CHAIRMAN. You do include submarines?

Secretary DANIELS. Everything that the General Board thought
could be called on for or needed.

The CHAIRMAN. Now, taking all of the so-called war plans filed in
con- nect with this committee, that you filed this morning, and the
which is not to be made public, do you consider that all those
prior to April 6, 1917, constitute an adequate base and operative
for war against Germany on that date?

Secretary DANIELS. Plus the plans——

The CHAIRMAN. Plus the plan that we have seen in executive ses-

Secretary DANIELS. Oh, no; plus the plans that have been pre-
sented to you by Capt. Pratt and plus the action of operations during
the war.

The CHAIRMAN. Plus what?

Secretary DANIELS. Plus the plans and operations carried out to
meet every exigency or change of war.

The CHAIRMAN. Yes; the 15 operative plans that you put in this
morning plus what came afterwards.

Secretary DANIELS. Yes; and the estimates of the situation made
before the war. Now, Mr. Chairman, you must understand a plan
estimate. A plan is no sacrosanct thing; it is the best estimate
that we can make beforehand. Now, I tell you the plans we had
before the war of the General Board, the plans that Capt. Pratt, of
course, made before the war plus the plans that Capt. Pratt
presented here and put in the record in the early days of the war,
changing estimates and plans put in operation during the
war, sufficient to win the victory which American naval strength
won.

The CHAIRMAN. Of course, that has nothing to do with my ques-

tion. Secretary DANIELS. It has everything to do with it.

The CHAIRMAN. But were the 15 plans Capt. Pratt put in not put
in before the war—the ones you gave me this morning?

Secretary DANIELS. The first 13 were and the other 17 were put in
after the war.

The CHAIRMAN. The first 13. Now, my question is, Do you con-
sider all of those plans made prior to April 6, 1917—that has
been presented to you with what came afterwards—constitute a basis of
plans for war against Germany on that date?

Secretary DANIELS. Plus the black plan——

The CHAIRMAN. You can not put in what comes after that.

Secretary DANIELS. Why, certainly.

The CHAIRMAN. I say what you had at that time.

Secretary DANIELS. Certainly; I must, because the very last word of every plan the General Board made was—most important of all—“Confer with the allied forces and cooperate with them.”

The CHAIRMAN. That is, without the plans that were made afterwards you do not consider that they constituted an adequate basis of operative plan?

Secretary DANIELS. I consider this, that they contained everything that was possible up to the time changing conditions caused Operations to make plans that every general and every manager of a war must make as conditions go on.

The CHAIRMAN. Which, of course, was not what I asked you.

Secretary DANIELS. Well, I have answered your question.

The CHAIRMAN. I asked you whether they constitute an adequate basis of operative plan.

Secretary DANIELS. I have answered your question. I consider they constitute as adequate, as full, as perfect as the genius and ability of naval strategists could make. They were full and complete and, of course, they were modified, they were changed, they were enlarged, they were improved to meet the changing conditions.

The CHAIRMAN. You think they were as full and complete as they could have been under the circumstances?

Secretary DANIELS. Oh, undoubtedly.

The CHAIRMAN. But you would not say that they in themselves are an adequate basis of operative plan?

Secretary DANIELS. As adequate as any naval strategist ever made in the history of naval warfare.

The CHAIRMAN. So you would say that on April 6 all planning and preparations were made and upon signal every vessel could go to its appointed task and every bureau was ready to cooperate with Operations—would you say that?

Secretary DANIELS. Admiral Mayo has told you that when war was declared all he had to do was to send one telegram, “Mobilize,” and the fleet was mobilized. Every officer that has been heard has told you it was like that [snapping the fingers]. Every bureau, every navy yard operated cooperatively immediately.

The CHAIRMAN. A good many officers have been called and told us some of the ships of the Navy were not prepared at all and could not be used, some of the very important ships of the Navy.

Secretary DANIELS. Well, you have heard very fully the testimony of Admiral McKean, who was Chief of Material.

The CHAIRMAN. Which I think bears that out.

Secretary DANIELS. You have heard the testimony of Admiral Mayo.

The CHAIRMAN. Who referred to the battleships and destroyers that were with his fleet.

Secretary DANIELS. Who was ready and anxious to go across the ocean at once with his fleet.

The CHAIRMAN. And who stated that we had certain types of vessels that ought to have been with the fleet and were not ready.

Secretary DANIELS. Well, Mr. Chairman, if you read Admiral Jellicoe's testimony that I have put in here, he told you that the British Navy would have been better off if they had had certain

types of ships. There never was a navy in the world, there never will be in which its commanding officers and leaders would not like to have additional other types of ships. When you speak of readiness you do not speak that you have everything you could possibly want on earth. Admiral Mayo's fleet was set and ready and he wanted to go across, but the British and the other Allies did not feel—Mr. Balfour sent word over here to that effect, and others, that at that time it was not wise, and did not request the fleet to go.

The CHAIRMAN. I do not think we have had any testimony, Mr. Secretary, that Admiral Mayo's fleet was ready except as to particular ships, such as battleships and destroyers, such as he had with him.

Secretary DANIELS. Admiral Mayo's fleet was the fleet he was in command of.

The CHAIRMAN. He never claimed it was ready as a fleet. He claimed the individual ships were that were with him.

Secretary DANIELS. He claimed it as a fleet.

The CHAIRMAN. Show me the testimony.

Secretary DANIELS. He claimed his fleet was ready to go.

The CHAIRMAN. Yes; the fleet with him.

Secretary DANIELS. He came to Washington to see me and wanted to go across with his fleet.

The CHAIRMAN. But he specifically stated it was lacking in ships that ought to go with his fleet, and those were ships we had but simply did not have them ready.

Secretary DANIELS. Did I not tell you neither our Navy or any navy that ever existed ever had every type of ship it wanted, and there never was a captain of a ship who was not always saying, "Well, I would like to have this addition to my ship, I would like to have this change in my ship, and this gun changed." That is naval.

The CHAIRMAN. But if you had them and had them ready you could have given them to him, would you not?

Secretary DANIELS. Given them to whom?

The CHAIRMAN. This illustration you are using—

Secretary DANIELS. Not at all. Mayo did not go across with his fleet, not because it was not ready, not because he lacked types of ships. He didn't go because—

The CHAIRMAN. Whether that was the reason he did not go or not, he did not have enough and so testified.

Secretary DANIELS. I think you will find Admiral Mayo said he was ready to go.

The CHAIRMAN. Yes; he was ready to go with what he had but was not adequate.

Secretary DANIELS. With what he had, yes.

The CHAIRMAN. Then what do you say—

Secretary DANIELS. And he said this, he said there never was a time virtually that the fleet was in such a fine condition as then.

The CHAIRMAN. Yes.

Secretary DANIELS. Yes; that is what he said.

The CHAIRMAN. Well, that does not show anything, does it?

Secretary DANIELS. It shows everything.

The CHAIRMAN. But he specifically testified he was lacking in personnel and lacking in ships.

Secretary DANIELS. A man who has been in the Navy many years, as long as Admiral Mayo, and tells you that the ships under his command were in better condition than he had every known them——

The CHAIRMAN. Precisely; but he did testify——

Secretary DANIELS. And another witness who was not seeking to make testimony for the department, Admiral Plunkett, tells you that the effectiveness of the ships in shooting was better than it had ever been, and Capt. Palmer tells you there never was a minute that the ships did not have the personnel. I think that is a complete answer.

The CHAIRMAN. All of them have testified that the ships that were there were in first rate condition, though they were going down hill a bit on account of taking men off for the armed guard.

Secretary DANIELS. They never testified those ships were going down hill any. On the contrary, they testified the ships were in admirable condition.

The CHAIRMAN. Yes; Admiral Mayo testified they were falling off because of taking men for the armed guard.

Secretary DANIELS. Mr. Chairman, when we were called upon to take the armed guard, of course, we took the best gunners on the ships.

The CHAIRMAN. And, of course, when you took the best gunners the fleet——

Secretary DANIELS. And what did we do? We immediately put in training other men who very shortly became excellent gunners, so that we were filling the need, filling the naval need.

The CHAIRMAN. Of course that hurt the efficiency of the fleet.

Secretary DANIELS. If you were on the stand I might ask you a question.

The CHAIRMAN. Well?

Secretary DANIELS. I would ask you what you would have done when the demand came for gunners to make the armed guard. I dare say you and every other man in America would have said, "Take the very best gunners we have got." And when it was decided that the fleet should not go over and the Allies joined in that decision, why it was a perfectly wise——

The CHAIRMAN. Absolutely necessary, no question about that.

Secretary DANIELS (continuing). Proper thing to do. Then we trained other men.

The CHAIRMAN. Precisely, but when you did take them off, of course, it hurt the efficiency of the fleet for the time being. No question about that.

Secretary DANIELS. The efficiency of the fleet was better than it ever was, but, of course, when you took those men off for a little while, until you put other men on, you had the fleet locked up in a safe deposit vault in the York River with nets and mines across it, training men, and such training as the men had there was most marvelous.

The CHAIRMAN. Now, to lock the fleet up with nets and mines to protect them in the York River is not a very bold and audacious policy, is it?

Secretary DANIELS. No; the bold and audacious policy was not in that line; because the Allies asked us not to send the dreadnaughts over there then. And why? The logistics of the situation.

The CHAIRMAN. I ask you, then, Mr. Secretary, if plans were completed so that on April 6, 1917, all planning and preparations were made and upon signal then every vessel was ready to go to its appointed task and every bureau was prepared to cooperate with the Bureau of Operations? Would you say yes or no—or, answer it in our own way.

Secretary DANIELS. Well, Mr. Chairman, in a great organization would not say that there was not some man that had rheumatism some man that had influenza and that could not have gone; and will not say that there was not a ship that did not have the men. will not say that there were not ships that had been sent to some yard for repairs. Of course, I will not say that, because there never been a day in the history of the American Navy when it could be said of every single ship and every single man.

The CHAIRMAN. You mean if there was a ship that was not ready to you could take a man from another ship so that it could be ready to go?

Secretary DANIELS. No; I mean that there never was a ship ready so that there were not officers and men ready to man it.

The CHAIRMAN. Officers and men ready?

Secretary DANIELS. Officers and men ready to be sent.

The CHAIRMAN. But it is a fact that Capt. Palmer testified, from Bureau of Navigation, that they did take men from other ships?

Secretary DANIELS. Oh, wait a minute. In the early days of the war the first thing we did was to call in 12,000 Naval Militia. They immediately went on these ships. Then we took over the Coast Guard. Then we took over the Coast and Geodetic Survey. Then we rolled in the naval reserve classes 1 and 2; we took over a number of merchant captains—class 3, I think it was; merchant seamen and men who were seagoing men. They were excellent and they knew the sea perfectly. They did not have the training of naval methods, but as far as manning the ships and navigating the ships was concerned, they were the most effective and able body of officers and men.

The CHAIRMAN. Now, the answer to my question; will you give

Secretary DANIELS. What is that?

The CHAIRMAN. I have asked you four times whether you completed the plans were completed so that on April 6, 1917, all preparations were made, and upon signal then every vessel went to its appointed task, and every bureau was ready to cooperate with the Bureau of Operations?

Secretary DANIELS. I have answered it four times.

The CHAIRMAN. I do not think so.

Secretary DANIELS. I have answered it four times, Mr. Chairman.

The CHAIRMAN. And each time differently; and I do not think—

Secretary DANIELS. And each time alike.

The CHAIRMAN. Then, what is the gist of your answer?

Secretary DANIELS. What is the particular part of the—

The CHAIRMAN. I do not know anything from your answers, as to whether they were ready or not.

Secretary DANIELS. I have told you that the fleet never was so fit as it was at that time that the ships were never in such good condition; and

now you ask me if every man in the Navy was perfectly well that day and able to do 100 per cent work, and I would not say that there were not a few who were not.

The CHAIRMAN. You know perfectly well, Mr. Secretary, that I have not asked you that.

Secretary DANIELS. You have asked me that. You asked me if every ship—

The CHAIRMAN. I asked you whether you would consider that every plan was completed so that on April 6, 1917, all planning preparations were made and everything was ready—

Secretary DANIELS. I told you ten times that every plan that naval ingenuity and naval statesmanship could make had been made.

The CHAIRMAN. Then, upon signal was every vessel ready to start?

Secretary DANIELS. Every vessel was ready to start that any human ingenuity could make ready to start. Admiral McKean has told you, and has given you a list of all the ships here.

The CHAIRMAN. And every bureau was ready to cooperate with the Bureau of Operations?

Secretary DANIELS. Immediately.

The CHAIRMAN. Under a given plan?

Secretary DANIELS. Immediately.

The CHAIRMAN. What was that plan?

Secretary DANIELS. The plans were made in 1915. They were required under the 1915 plans, every bureau, to have its preparations ready for war, and to be ready for war and to make reports every three months to the department of anything they needed.

The CHAIRMAN. Why did Admiral Palmer testify he had no plans for cooperation with the bureaus?

Secretary DANIELS. Well, if he did not have any plans, he had lost them.

The CHAIRMAN. He had lost them?

Secretary DANIELS. Or he—now, what he probably meant was this, Mr. Chairman, and any other officer that came before you would probably tell you that he did not have all the basic plans. I told you this morning it was the policy of Operations to keep the large plan very confidential and secret. In other words, they would not send to the Chief of the Bureau of Ordnance and say to him, "Here are the plans for repairing ships that the Construction and Repair Department is going to handle." They would give him all he needed to know about ordnance. And so through all the bureaus.

Now, Admiral Palmer had plans that the other bureaus had. Of course, what he probably meant was, as the war went on and we were called upon to man merchant ships, armed guards, and everything else, that he had not laid out before him, six months ahead, the "Following ships"—which had not been commandeered or had not then been built—"will go into commission on the 27th day of a certain month, and therefore should have certain men."

The CHAIRMAN. How about the ships that had been built and were in reserve?

Secretary DANIELS. They had the personnel on them.

The CHAIRMAN. The full personnel?

Secretary DANIELS. They had a certain personnel on them, in reserve. When I became Secretary of the Navy the reserve ships had

5 per cent crews. We increased it to 33½ per cent; we increased it to 50 per cent; we increased it to 50 per cent. We had enough men when we went into war to increase these, until within a few days every ship that Operations ordered out, we had enough men to go on and man them. Operations did not give them six months ahead of what they were going to do, but Operations said to Navigation, "We will send out a certain ship, needing a certain personnel, to-morrow, next week or next month"; and Capt. Palmer has told you that never failed to have the officers and men before the ship was ready to sail.

THE CHAIRMAN. And he has also told us that in order to get those officers and men he had to go and get them from other ships that were in commission, and to take them away from those ships.

SECRETARY DANIELS. Well, Mr. Chairman, what ships did he take away from?

THE CHAIRMAN. Battleships.

SECRETARY DANIELS. Ships that the Navy Department, in pursuance of an agreement with the Allies, had determined should not then be sent abroad.

THE CHAIRMAN. And ships that needed and should have had a full complement, should they not?

SECRETARY DANIELS. How is that?

THE CHAIRMAN. I say, and ships that needed and should have had a full complement, should they not?

SECRETARY DANIELS. Yes; and they got them so rapidly that we were in a little while, had more men than we ought to have had on board, training them.

THE CHAIRMAN. Green men, who were untrained, who knew nothing of their duties, and were on the ships for training?

SECRETARY DANIELS. We used the battleships like the *Indiana* and the *Wisconsin* and the *Massachusetts* and the *Iowa*—all those old battleships that are now put in the scrap-heap, we used them for training. That was their business.

THE CHAIRMAN. You say that—

SECRETARY DANIELS. Let me read you this statement from Admiral Sims about battleships.

THE CHAIRMAN. Is this from the testimony?

SECRETARY DANIELS. No; this is from an article in *World's Work*. Writing about why the battleships should not go over to Europe in the spring and summer of 1917. [Reading:]

"If we sent all our big ships to England we should have been obliged to keep them constantly stationed with them ready for a great sea action; this would have been completely fallen in with German plans, for then these destroyers would have been used against her submarines.

"We followed the policy that the British Navy, and the United States Navy Department, and Admiral Sims thought was best, of converting these old ships into training ships and permitting them to go across and do this offensive work.

THE CHAIRMAN. Now, Mr. Secretary, I will read your letter of July 1917, copy of which was cabled to Admiral Sims on July 9, 1917.

SECRETARY DANIELS. Is it in the testimony?

The CHAIRMAN. Is it in the testimony; yes. It was a cablegram sent on July 9. [Reading:]

Confidential.

NAVY DEPARTMENT,
Washington, July 3, 1917.

SIR: Referring to the cablegram from Ambassador Page in London, dated June 23, 1917 (copy attached). After careful consideration of the present naval situation, taken in connection with possible future situations which might arise, the Navy Department is prepared to announce as its policy in so far as it relates to the Allies—

(1) The heartiest cooperation with the Allies to meet the present submarine situation, in European or other waters, compatible with an adequate defense of our own home waters.

(2) The heartiest cooperation with the Allies to meet any future situation arising during the present war.

(3) A realization that while a successful termination of the present war must always be the first allied aim and will probably result in diminished tension throughout the world, the future position of the United States must in no way be jeopardized by any disintegration of our main fighting fleets.

(4) The conception that the present main military rôle of the United States naval forces lies in its safeguarding the lines of communication of the Allies. In pursuing this aim there will, generally speaking, be two classes of vessels engaged—minor craft and major craft—and two rôles of action; first offensive, second defensive.

(5) In pursuing the rôles set forth in paragraph (4), the Navy Department can not too strongly insist that in its opinion, the offensive must always be the dominant note in any general plans of strategy prepared. But, as the primary rôle in all offensive operations must perforce belong to allied powers, the Navy Department announces as its policy that, in general, it is willing to accept any joint plan of action of the Allies deemed necessary to meet immediate needs.

(6) Pursuant to the above general policy, the Navy Department announces as its general plan of action the following:

(a) Its willingness to send its minor fighting forces, comprised of destroyers, cruisers, submarine chasers, auxiliaries, in any number not incompatible with home needs, and to any field of action deemed expedient by the joint allied admiralities, which would not involve a violation of our present State policy.

(b) Its unwillingness, as a matter of policy, to separate any division from the main fleet for service abroad, although it is willing to send the entire battleship fleet abroad to act as a united but cooperating unit when, after joint consultation of all admiralities concerned, the emergency is deemed to warrant it, and the extra tension imposed upon the line of communications due to the increase in the number of fighting ships in European waters will stand the strain imposed upon it.

(c) Its willingness to discuss more fully plans for joint operations.

Sincerely, yours,

JOSEPHUS DANIELS.

Secretary DANIELS. Let me see that, Mr. Chairman, if you please. or a copy of it? That is a very admirable document. That was a formal statement—

The CHAIRMAN. I want to ask you some questions about it.

Secretary DANIELS. All right [examining paper].

The CHAIRMAN. I call your attention particularly to the fact that in the letter I have just read, on as late a date as July 3 you say, "the Navy Department is prepared to announce as its policy in so far as it relates to the Allies." If it took you three months before you were prepared to advise our State Department and our commander in the war zone, too, as to what our naval policy was to be, how is it that you were fully prepared before April, 1917, with detailed plans to carry out that policy? Policy usually precedes plans to carry it out.

Secretary DANIELS. The answer to that is very plain. The policies announced here had not only been announced to the Allies on the 9th of April but the bulk of them had been put into effect and

this was a mere formal statement of policies with which they had been familiar and which had been carried out in large measure. That letter, Mr. Chairman, is exactly along the same line as Capt. Schofield's letter of June 8, in which he declared in writing that the policies that the General Board approved on April 5 had been carried out. Here was a formal plan, officially drawn up, merely putting in formal phrase what had been already announced.

The CHAIRMAN. Why did you not do that for the commander of the forces in the war zone?

Secretary DANIELS. My recollection is that Capt. Pratt thought it was wise at the time to put on record what we had done, and to place a formal statement of policies which had, in the main, already been carried out. It in no sense meant that we had only made a policy at that date.

The CHAIRMAN. You said at that date, "The Navy Department is prepared to announce as its policy."

Secretary DANIELS. Exactly; we were announcing it to all the Allies, and anybody else.

The CHAIRMAN. But this is a confidential cable.

Secretary DANIELS. It was a confidential cable, but all confidential cables like that that Sims had were taken, of course, in total or in full—

The CHAIRMAN. Were all confidential cables that Sims had sent—

Secretary DANIELS. No; wait until I finish. They were taken in full or in part so that we could formulate in that way, of course, not in full, but largely. That is a formal statement made out by Capt. Pratt, who thought that it was well to place it in some official, formal way just what we had done and what we were willing to do.

The CHAIRMAN. No; I do not think it speaks of what had been done. It speaks about what we are ready to do.

Secretary DANIELS. Read it again, and you will find it applies to what has already been done.

The CHAIRMAN. It says:

The Navy Department is prepared to announce as its policy in so far as it relates to the Allies—

(1) The heartiest cooperation with the Allies to meet the present submarine situation—

Secretary DANIELS. We are prepared to announce that.

The CHAIRMAN. Yes.

Secretary DANIELS. On the 11th of April they had done that.

The CHAIRMAN. Yes; but they are announcing here plans for the future.

Secretary DANIELS. Announcing the policy that had been settled on the 11th of April. On the 11th of April we said to Admiral Browning and Admiral Gresset, "Now, our policy is, we shall fully cooperate with the allied forces." Now, here is a formal official statement, nearly all of which had been carried out long before that, back to the British Admiralty. Let me insert here in the hearing, to show you, the telegram sent by Admiral Browning on the 11th of April to the British Admiralty, announcing to them the formal arrangement made of the policy of cooperation between the Navy of the United States and the Allied navies. I would like to put that in the hearing if it can be found; and I would like also to put in the hearing to show you that on April 24, during 1917, this country

was visited by several war missions made up of representative men of the countries allied with the United States in the conflict with Germany. Now, long before this formal announcement—it need not have been made at all except for a formal declaration—we had dates of the arrivals of these bodies in Washington, were as follows. We had, as I say, made this arrangement with the British and French admirals on April 11, 1917. On April 24 the French mission came, of which the naval representative was Admiral Cocheprat. We had many discussions with him.

On April 21 the British mission, with distinguished naval officers, arrived.

On April 23 the Italian mission came.

Our arrangements were complete with these missions. The representatives of these missions outranked any service that any one admiral from Great Britain or France or our admiral abroad made, because they were composed of such men as Joffre, Viviani, and Balfour, and Drummond, men from all the departments of government, and with them we made all our arrangements complete; so that this was a mere formal announcement of what was already in being and already being carried out.

The CHAIRMAN. Why should they need to have these meetings with these commissions if their policy was all made out?

Secretary DANIELS. In this way: The policy of cooperation with the Allies was made out and the policy of sending destroyers was made out, and they wished the fullest cooperation, as the changing conditions of war brought about.

The CHAIRMAN. Now, you say that you were all ready to cooperate with England. Here is a report of the General Board of May 3, 1917, which begins at page 2657 of the typewritten record, from which I read as follows:

Confidential.

MAY 3, 1917.

From: Senior member present.

To: Secretary of the Navy.

Subject: Further recommendations as to the employment of patrol craft to meet submarines.

References: General Board letter, G. B. No. 425, of April 28, 1917, Serial No. 721; subject—immediate steps to be taken for efficient cooperation against submarines.

Since forwarding the above reference the General Board has obtained from the senior naval members of the British and French commissions now in this country additional specific information in regard to the submarine situation, the measures which the British and French are now taking, and suggestions as to the measures which the United States may best take to supplement British and French endeavor, which is now a probable maximum.

Then, on page 2658, the next page, the next page of the report, I read as follows:

3. The statements of the senior naval members of the British and French commissions before this board May 2 and 3 may be briefly summarized as follows:

(a) The number of patrol vessels, both British and French, now available or in prospect, is not sufficient to meet the submarine campaign waged by Germany.

(b) The present rate of destruction of food carriers to England and France, unless it can be reduced in the next two months, will result in starving both England and France.

(c) England will be starved out before France.

(d) The need for patrol craft is immediate; the critical period is now, and in the next two months the fate of England may be decided.

(e) Unless armed patrol craft, destroyers, and any surface craft able to keep the sea are dispatched in the next few weeks, they will be too late to prevent disaster to England, first, and to France, second.

(f) Fifty armed surface craft dispatched now would be "a real help." Two hundred sent now would do much to prevent the disaster which threatens England, especially.

(g) The vessels most desired are destroyers—

And so forth. Then in paragraph 8 of the same letter I find this:

8. The General Board wishes to reiterate with the utmost earnestness that it believes disaster to Great Britain can only be prevented by immediate action, as recommended above.

CHAS. J. BADGER.

Secretary DANIELS. What date is that?

The CHAIRMAN. That is May 3, 1917.

Secretary DANIELS. Yes.

The CHAIRMAN. You have referred several times in your testimony to a cable from the other side, saying that 20 destroyers would probably take care of the situation. I think the date of that cablegram was April 20.

Secretary DANIELS. April 24, I think.

The CHAIRMAN. April 24?

Secretary DANIELS. Yes.

The CHAIRMAN. This is barely a week after that, from the opinion that the General Board had been able to get from the British representatives, it was stated that unless their recommendations about sending vast quantities of antisubmarine boats were followed, England practically might be driven out of the war.

Now, you state here that this letter simply refers to the cooperation which already existed with England. Did it refer to that particular plan of the General Board?

Secretary DANIELS. You will bear in mind, Mr. Chairman—

The CHAIRMAN (continuing). And was that part of the cooperation that already existed?

Secretary DANIELS. You will bear in mind that I never have stated that we had enough destroyers or enough antisubmarine craft at any time to do the things which the General Board recommended and which we wished to do. If we had had, I should not have been coming to Congress, as I was, asking for emergency money to build other destroyers. We never did have enough destroyers during the whole war, and we sent our destroyers over. Last Friday, Mr. Chairman, you asked me a question which will bear upon this very well. I read from that testimony:

The CHAIRMAN. I have here a list of destroyers in November 1, 1918, that were in commission: At home, 29; in Europe, 58—oil burners; coal burners—at home, 8; Europe, 12. That is, in Europe both oil burners and coal burners, 70. In the latter months of the summer of 1917 we had something like 50 destroyers on the other side, did we not?

That is the question you asked me.

The CHAIRMAN. I was wrong in the number of destroyers. That should have been 39, I think.

Secretary DANIELS. That was the question you asked me?

The CHAIRMAN. Yes.

Secretary DANIELS. I think it is very material to answer that question—to give the status of the destroyers we did have, what destroyers

we did send, and when we sent them—so that we may see exactly the status, which is in answer to the question about all we sent across. I have here the information you desired as to the number we sent in 1917 as well as in regard to the figures you stated.

The reports of Operations show that 48 had sailed by the end of August, including 5 of the small coast torpedo vessels; and though these small ones had to sail 12,000 miles from Manila, all were there in September. Three more sailed in October and 3 additional in November.

I will insert here the sailing list of the 128 vessels dispatched to Europe during 1917. Six destroyers sailed April 24, 1917; 6 destroyers sailed May 7, 1917; the destroyer tender *Melville* sailed May 11, 1917; the *Benham* and 5 others sailed May 15, 1917; May 21, 1917, 6 more sailed; May 23, 1917, 2 more sailed; May 25, 1917, 2 more sailed; making up, on May 25, 1917, 28 destroyers that had sailed for the Queenstown district.

On May 31 we sent the *Dixie*.

On June 9, 1917, we sent five yachts.

On June 14, 1917, we sent four destroyers. They would have gone a few days sooner, but we held them to go with the first troops, so as to give full protection to them.

The CHAIRMAN. Do not these figures all appear in the record already?

Secretary DANIELS. Not from me—as to the dates.

The CHAIRMAN. They do from others.

Secretary DANIELS. They may from others. By June 14 we had sent 32 destroyers.

The CHAIRMAN. Is there any particular need, as long as they are in the record, of reading them?

Secretary DANIELS. Yes; this is tremendously interesting, to show how well we were sending the destroyers that we had. In other words, we had altogether 50 destroyers, and we had sent 35 up to June 17, 40 up to July 30, 45 up to August 1.

The CHAIRMAN. Forty-five up to August 1?

Secretary DANIELS. Including the 5 destroyers we got from Cavite, a small type of destroyers.

The CHAIRMAN. That is, we had them there?

Secretary DANIELS. Yes; they sailed from Cavite on August 1. They had to go 12,000 miles. We had sent them those out of 50 destroyers.

The CHAIRMAN. How did they go from Cavite?

Secretary DANIELS. They went around through the Suez Canal, I think.

The CHAIRMAN. When did they arrive?

Secretary DANIELS. In September, I think. So that we had, out of 50 destroyers, sent over to Great Britain 28 by May 25 out of a total of 50. That was out of a total of 50. By June 17 we had sent 35. I think that is an answer—that we were not sending all the destroyers across.

The CHAIRMAN. Why did we not send them all? Capt. Pratt said he would have sent all that we had.

Secretary DANIELS. Well, Capt. Pratt would not have agreed with Admiral Mayo and he would not have agreed with the Chief of Operations.

The CHAIRMAN. It was the vital thing to attend to, was it not?

Secretary DANIELS. Well, Mr. Chairman, if you will permit me to finish this statement, I will show you exactly the whole situation about destroyers.

(The table submitted by Secretary Daniels is here printed in the record in full, as follows:)

List of vessels which sailed for duty in European waters during 1917.

Name.	Type.	Date of sailing.	Name.	Type.	Date of sailing.
		1917.			1917.
1. Conyngham....	Destroyer....	Apr. 24	Corona.....	Yacht.....	Aug. 5.
2. Davis.....	do.....	Do.	Birmingham..	Cruiser.....	Aug. 8.
3. McDougal....	do.....	Do.	Ossipee.....	Coast Guard cutter..	Aug. 15
4. Porter.....	do.....	Do.	Seneca.....	do.....	Aug. 19
5. Wadsworth....	do.....	Do.	Yankton.....	Yacht.....	Aug. 20
6. Wainwright....	do.....	Do.	Cahil.....	Mine sweeper.....	Aug. 26.
7. Cassin.....	do.....	May 7	Chester.....	Cruiser.....	Do.
8. Ericsson.....	do.....	Do.	City of Lewes...	Trawler.....	Do.
9. Jacob Jones....	do.....	Do.	Courtney.....	do.....	Do.
10. Rowan.....	do.....	Do.	Douglas.....	Mine sweeper.....	Do.
11. Tucker.....	do.....	Do.	Hinton.....	Trawler.....	Do.
12. Winslow.....	do.....	Do.	James.....	do.....	Do.
Melville.....	Destroyer tender.	May 11	Manning.....	Coast Guard cutter..	Aug. 29.
13. Benham.....	Destroyer.....	May 15	McNeal.....	Trawler.....	Aug. 26
14. Cummings....	do.....	Do.	Wakiva II.....	Yacht.....	Do.
15. Cushing.....	do.....	Do.	46. Aylwin.....	Destroyer.....	Aug. 30.
16. Nicholson....	do.....	Do.	Vamacraw.....	Coast Guard cutter..	Do.
17. O'Brien.....	do.....	Do.	47. Truxton.....	Destroyer.....	Aug. 31
18. Sampson.....	do.....	Do.	Wheeling.....	Gunboat.....	Do.
19. Drayton.....	do.....	May 21	48. Whipple.....	Destroyer.....	Do.
20. Jenkins.....	do.....	Do.	Marietta.....	Gunboat.....	Sept. 13
21. Patterson....	do.....	Do.	Algonquin.....	Coast Guard cutter..	Sept. 25
22. Paulding....	do.....	Do.	Paducah.....	Gunboat.....	Sept. 29
23. Trippe.....	do.....	Do.	Tampa.....	Coast Guard cutter..	Do.
24. Warrington..	do.....	Do.	Bushnell.....	Tender.....	Oct. 12
25. Sterett.....	do.....	May 23.	K-1.....	Submarine.....	Do.
26. Walke.....	do.....	Do.	K-2.....	do.....	Do.
27. Jarvis.....	do.....	May 25.	K-5.....	do.....	Do.
28. Perkins.....	do.....	Do.	49. Downes.....	Destroyer.....	Oct. 18
Divie.....	do.....	May 31.	50. Balch.....	do.....	Oct. 25
Christabel.....	Yacht.....	June 9.	51. Duncan.....	do.....	Oct. 31
Harvard.....	do.....	Do.	Iydonia.....	Yacht.....	Nov. 1
Noma.....	do.....	Do.	Cythera.....	do.....	Nov. 2
Sultana.....	do.....	Do.	Druid.....	do.....	Nov. 3
Velette.....	do.....	Do.	Arcturus.....	do.....	Nov. 4
29. Allen.....	Destroyer.....	June 14.	Margaret.....	do.....	Do.
30. Burrows.....	do.....	Do.	May.....	do.....	Do.
31. Fanning.....	do.....	Do.	Rambler.....	do.....	Do.
32. Wilkes.....	do.....	Do.	Utowannah....	do.....	Do.
Aphrodite.....	Yacht.....	Do.	Wenonah.....	do.....	Do.
Corsair.....	do.....	Do.	52. Monaghan..	Destroyer.....	Nov. 9
33. Parker.....	Destroyer.....	June 16.	53. Roe.....	do.....	Do.
34. Ammen.....	do.....	June 17.	Delaware.....	Battleship.....	Nov. 22
35. Shaw.....	do.....	Do.	Florida.....	do.....	Nov. 23
36. Lamson.....	do.....	July 16.	54. Manley.....	Destroyer.....	Nov. 24
37. Smith.....	do.....	Do.	New York.....	Battleship.....	Nov. 25.
38. Reid.....	do.....	July 21.	Wyoming.....	do.....	Do.
39. Preston.....	do.....	July 22.	L-1.....	Submarine.....	Dec. 4.
Sacramento....	Gunboat.....	Do.	L-2.....	do.....	Do.
40. Flusser.....	Destroyer.....	July 30.	L-3.....	do.....	Do.
Marthas.....	Gunboat.....	Do.	L-4.....	do.....	Do.
Panther.....	Destroyer tender.	Do.	L-10.....	do.....	Do.
41. Bainbridge..	Destroyer, from Ca- vite.....	Aug. 1.	L-11.....	do.....	Do.
42. Barry.....	do.....	Do.	E-1.....	do.....	Do.
43. Chauncey....	do.....	Do.	Genessee.....	Tug.....	Do.
44. Dale.....	do.....	Do.	Concord.....	Mine sweeper.....	Dec. 15.
45. Decatur.....	do.....	Do.	Galatea.....	Yacht.....	Do.
Castine.....	Gunboat.....	Do.	Barneget.....	Tug.....	Dec. 20.
Nashville.....	do.....	Aug. 2.	Gypsum Queen..	do.....	Do.
Carola IV.....	Yacht.....	Aug. 4.	Conestoga.....	do.....	Dec. 4.
Emeline.....	do.....	Do.	Prometheus....	Tender.....	Dec. 5.
Guinevere.....	do.....	Do.	Nokomis.....	Yacht.....	Dec. 17.
Remlik.....	do.....	Do.	Penobscot.....	Tug.....	Do.
Wanderer.....	do.....	Do.	Venetia.....	Yacht.....	Dec. 21.

Secretary DANIELS. In asking me on Friday a question with regard to destroyers you stated that on November 1, 1918, there were in commission: At home, 29; in Europe, 58 oil-burning destroyers; coal burners, at home 8, in Europe 12. I think I see the point you are driving at. But you must remember several points in that connection:

1. There was war "over here" as well as "over there" from May 25, 1918, for enemy submarines operated off our coasts almost continuously from May to the latter part of September, and were attacking vessels and menacing shipping from Nova Scotia to the North Carolina coast. We had to furnish destroyer escort to troop and cargo transports and merchant convoy, and this was just as necessary from New York and Boston and Hampton Roads as it was to and from Queenstown or Brest. This did not cause us to recall a single destroyer or patrol ship from Europe, nor did it prevent us from sending to Europe every one that was not absolutely essential to protect our troop and cargo transports and shipping from American ports. This was Allied shipping, as well as our own; and the few destroyers we kept in home waters were performing a service just as important as were the same number on the other side at that time. If we had followed Sims's advice, stripped our coasts entirely of seagoing protection and sent all our antisubmarine craft to Europe when the submarines began operating off our coasts, not a troop ship, not a supply or merchant vessel could have sailed in safety. Our troops transportation, which was then at its height, and was the most important thing in the world to the Allies, would have had to have been suspended until we recalled destroyers from Europe, and they had made the 3,000-mile voyage back home. This would not only have disrupted the splendid escort organization in Europe, of which our vessels were a vital part; it would have weakened the Allied armies which were depending on those American troops to keep up the offensive that drove the Germans to defeat. It would have been the severest blow to the Allied cause, and the greatest victory of the German submarine warfare.

There never was any policy of the entire warfare whose wisdom was more thoroughly proved by events than was this policy of keeping on our coasts enough antisubmarine craft to protect our troop and supply ships and keep open our lines of communication. But Sims urged us to send to Europe all our antisubmarine craft: said we could well afford to "strip our coasts entirely of seagoing protection," and pointed out that it would be a great thing for the cause if we could "entice" the U-boats from England and France to our own coasts. It seems almost incredible, even now, that Sims could have advised such a policy, but that he did you can see plainly from paragraphs 42 and 43 of his letter of January 7, in which he says he continuously urged that "everything be sent," destroyers, yachts, gunboats, tugs, etc.—"in fact, any craft that could steam across the ocean or be towed across," and that he "repeatedly explained that if we could actually entice the enemy into shifting his submarines to our coast it would be greatly to the advantage of the common cause." These are his words. We did not follow Sims's suggestions, for they would have resulted in disaster. We did send over to Europe all the antisubmarine craft we were not actually compelled to keep on our

own coasts for absolutely essential purposes. In fact, in our eagerness to do everything we could to help in the antisubmarine campaign, we sent more than we could really afford. At times we were below the danger line. We did take chances, chances that must be taken in war, and we were amply justified in so doing. But we were not justified in sending all our antisubmarine craft to Europe and stripping our coasts entirely of protection against submarines; and we did not do it.

If we had done such a thing we would have been condemned, and justly condemned, by the entire country. From the time war began there was always a possibility that the Germans might send their U-boats across the Atlantic; and this was a possibility we could, and did, never lose sight of. But we never allowed it to halt our policy of sending antisubmarine craft to Europe. Though we had, with submarine chasers, yachts, and other patrols, aircraft, and the few destroyers we retained, built up as good a system of defense as was possible, when the submarines did appear off our coasts the last of May, 1918, there was a barrage fire of criticism in Congress as well as the country. Senator Lodge and other Senators and a number of Congressmen visited the department. Admiral Benson showed them the exact conditions, and what we had done and were doing to meet the situation. They were thoroughly satisfied that the department had followed the wisest policy and was doing everything possible to protect our shipping and combat the submarines. Senator Lodge, in his speech in the Senate June 6, 1918—see page 8035, Congressional Record—told you—

The CHAIRMAN. This is all included in your statement heretofore?

Secretary DANIELS. I am only giving you one paragraph from it.

Senator Lodge said:

The Navy and the Navy Department have taken every precaution that human foresight could suggest, so far as I have been able to judge, and I have examined their preparations with such intelligence and care as I could give to the matter.

Mr. President, the Navy and the Navy Department have necessarily anticipated a submarine attack from the very beginning of the war. They have tried to make every preparation to meet it. I think they have.

In my judgment we are doing all that can be done. I have taken the pains to go to the department, where everything has been laid before the members of the Naval Affairs Committee who cared to investigate the subject, and I am entirely satisfied that they are doing everything that is possible. But the chase of the submarine is something like searching for the needle in the haystack. You can not tell in which particular wisp of hay it will come to the surface, but that the defense will be effective I have no sort of question.

The U-boats did manage to sink a number of small schooners and fishing craft and some steamers. But the Germans failed utterly in their two main purposes in sending over their submarines. They did not delay for a day the sailing of troop ships and cargo transports, because the Navy had enough small craft to escort them. And they did not succeed in inducing us to recall one destroyer or patrol ship from Europe.

If we had not retained a few destroyers and other patrol craft on this side, if we had sent all our antisubmarine craft to Europe, as Sims urged; if we had entirely stripped our coast of sea-going protection, we would have been compelled to have recalled a large part of our forces from Europe to escort troop ships and give protection to

our shipping, for the submarines continued their operations off our coasts until September.

2. The table given by Capt. Pratt shows clearly the large proportion of destroyers we sent to Europe and the small proportion retained on our own coast.

DESTROYERS AND COAST TORPEDO VESSELS IN HOME WATERS.

This table included, among the coal burners and coast torpedo vessels, the 16 small coast torpedo vessels, of 40 to 450 tons, not classed as destroyers.

Date.	Oil burners.	Coal burners.	Total.
Apr. 1, 1917.....	46	21	67
May 1, 1917.....	41	21	62
June 1, 1917.....	19	21	40
July 1, 1917.....	12	21	33
Aug. 1, 1917.....	12	11	23
Sept. 1, 1917.....	12	9	21
Oct. 1, 1917.....	12	9	21
Nov. 1, 1917.....	10	9	19
Dec. 1, 1917.....	11	9	20
Jan. 1, 1918.....	11	9	20
Feb. 1, 1918.....	7	6	13
Mar. 1, 1918.....	6	6	12
Apr. 1, 1918.....	6	6	12
May 1, 1918.....	9	6	15
June 1, 1918.....	9	6	15
July 1, 1918.....	11	6	17
Aug. 1, 1918.....	16	7	23
Sept. 1, 1918.....	21	8	29
Oct. 1, 1918.....	26	8	34
Nov. 1, 1918.....	28	8	36

Only five of those in the list of coal burners were classed as destroyers; these were sent over in July, so that from that date you can get the exact number of real effective destroyers, those of fair tonnage or modern type, in the list of oil burners.

The CHAIRMAN. Has all this been given in your testimony?

Secretary DANIELS. No; this is all fresh.

The CHAIRMAN. It has nothing in any way to do with my question.

Secretary DANIELS. It has everything to do with it. I am giving you a full statement of what we did with the destroyers during the war.

The CHAIRMAN. But my question was whether the vessels which I read you, and which were matters that were asked for by the British, were included in the cooperation that you speak of here.

Senator TRAMMELL. I understand the Secretary's answer is to show that they did cooperate so far as our facilities permitted.

Secretary DANIELS. I am showing what we did with our destroyers—a question you raised yourself on Friday—at home and abroad, and I am showing you that we cooperated very fully.

The CHAIRMAN. Why not just say that; that you did?

Secretary DANIELS. I have said that, but I did not want to say that and not give you—here was your memorandum, in which you discussed oil burners at home and in Europe, and coal burners at home and in Europe; so that it is essential to answer your question to give you a full statement.

Only five of those in the list of coal burners were classed as destroyers; these were sent over in July, so that from that date you can get the exact number of real effective destroyers, those of fair tonnage or modern type, in the list of oil burners.

Sixteen of the coal burners were small boats of 400 to 450 tons, classed at coast torpedo vessels, and not regarded as fit for heavy duty. Five of them were at Manila, but managed to make the 12,000-mile trip to Gibraltar, and did good service in that area. The numbers in Capt. Pratt's table include the vessels in yards under repairs as well as those in active service.

His tables show that on November 1, 1918, of the 28 oil burners in this country, 8 were at yards; 59 oil burners and 12 coal burners were in Europe and 1 en route there—total, 72.

3. Regarding your statement that on November 1, 1918, there were 29 oil-burning destroyers and 8 of the coal-burning type on this side of the Atlantic, I call your attention to the fact that the Germans ended their U-boat warfare and recalled their submarines in October, 1918, a month before the armistice was signed, though five or six vessels, including one of ours, the *Lucia*, were sunk after that time by U-boats on the way home. Admiral Strauss told you (p. 2579):

The submarine warfare ended on the 11th. by agreement, so that 112,000 tons (shipping losses in October) is only for 11 days.

Now, several of these new destroyers were commissioned after the submarine warfare was over, as the ship's data book shows:

1. *Breese*, commissioned October 23, 1918.
2. *Craven*, commissioned October 19, 1918.
3. *Landsdale*, commissioned October 26, 1918.
4. *Mahan*, commissioned October 24, 1918.
5. *Robinson*, commissioned October 19, 1918.

We sent over only two destroyers in October, the *Murray* and the *Fairfax*. New destroyers require a short period of trying out, both to test the vessel, so that any defects that develop may be remedied, and to get the new crew to working together properly. This was desirable even though we had trained the nucleus crews abroad, so the men who had served in the submarine zone could give those who had not the credit of their war experiences. It was particularly essential where each vessel had to make a voyage of 3,000 miles, and when it arrived be ready for heavy sea duty against submarines. This training period of these new destroyers was utilized for service off our coast, and they were thereby much better prepared for the European service for which they were destined. In the month or so previous to October 11 the following were commissioned:

1. *Boggs*, commissioned September 23, 1918.
2. *Dent*, commissioned September 9, 1918.
3. *Dorsey*, commissioned September 16, 1918.
4. *Israel*, commissioned September 13, 1918.
5. *Lea*, commissioned October 2, 1918.
6. *Luce*, commissioned September 11, 1918.
7. *McKee*, commissioned September 7, 1918.
8. *Radford*, commissioned September 30, 1918.
9. *Schley*, commissioned September 20, 1918.
10. *Woolsey*, commissioned September 30, 1918.

The statement of European Forces, made up by Admiral Sims's headquarters, stated that in addition to the 70 destroyers given in his table of November 11, 1918, four destroyers "technically based in European waters" were at that time in the United States undergoing repairs. This accounts, I believe, for 19 of the 28 oil burners Capt. Pratt listed as in home waters on November 1, 1918, and one other was, he stated, en route to Europe.

Gentlemen, when the German submarines came to our coasts, the submarine warfare was over here as well as "over there," and it was, in some respects, more difficult to combat the submarines here than it was there. We had hundreds of miles of coast to protect, and the submarines, which were of large type, ranged all the way from the Carolinas to Nova Scotia. In Europe they operated in narrow waters. They had, Admiral Sims told you, some 5,000 antisubmarine craft operating day and night around the British Isles; we had a few hundred, mostly submarine chasers and small converted yachts. It is not surprising that we did not succeed in sinking any of the half dozen submarines which came over here, when it is recalled how few the allied forces in Europe with their and our swift destroyers and thousands of other craft in the narrow waters where, Admiral Sims stated, an average of eight or nine German submarines operated. We had to use our available destroyers and many of our subchasers and yachts to escort troop ships, supply vessels, and merchant convoys bound for Europe as well as our own coastwise shipping. We kept our antisubmarine craft on patrol or escort duty constantly; they and our aircraft pursued the enemy U-boats diligently; and we did everything possible to protect the vessels on our coasts. But, as Senator Lodge said, it was "like hunting for a needle in a haystack." Admiral Sims says in one of his magazine articles that to have made the patrol system effective and kept down the U-boats would he required one destroyer to every square mile—25,000 destroyers in the Queenstown area alone. And we had on our coast many areas as large as Queenstown's. From May, 1918, on we had a "war zone" over here as well as in Europe, and the fact that our losses in vessels, outside of schooners and fishing craft, was not large as compared with those in European areas; the fact that we kept our troopships, supply, and merchant vessels going without any delay, and that not one under our escort was sunk proceeding from an American port is sufficient evidence of the success of our policy and operations.

Our destroyers in home waters, as well as abroad, did splendid service, the same sort of service they were doing in Europe. 1918 the American waters in which U-boats were operating were classed as a "war zone," and the Office of Naval Operations includes in its list of vessels that served in the war zone those which operated against the submarines in American as well as European waters. I would like to insert here the list made out by Operations and placed in the historical section of the destroyers and coast torpedo vessels—there were 101 in all—which were on duty in the war zones in Europe or America.

(The list referred to is here printed in the record, as follows:)

Destroyers and coast torpedo vessels on duty in war zones, Apr. 6, 1917, to Nov. 11, 1918.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
1. Allen.....	June 22, 1917	Nov. 11, 1918	Capt. Samuel Wood Bryant, June 22, 1917, to Dec. 30, 1917. Commander Hy. David Cooke, Dec. 31, 1917, to May 14, 1918. Commander Louis C. Farley, May 15, 1918, to Nov. 11, 1918.
2. Ammen.....	July 2, 1917	.....do.....	Commander Geo. C. Logan, July 2, 1917, to Mar. 31, 1918. Commander Louis C. Farley, Apr. 1, 1918, to May 15, 1918. Commander Geo. T. Swasey, jr., May 16, 1918, to Aug. 18, 1918. Lieut. Commander Delevan B. Downer, Aug. 19, 1918, to Nov. 11, 1918.
3. Aylwin.....	Aug. 30, 1917	.....do.....	Commander David McD. Le Breton, Aug. 1, 1917, to Oct. 17, 1918. Lieut. Commander Frederick G. Reinicke, Oct. 18, 1918, to Nov. 11, 1918.
4. Bainbridge (CT)....	Sept. 24, 1917	.....do.....	Commander Thaddeus A. Thompson, jr., Sept. 24, 1917, to Jan. 31, 1918. Lieut. Commander Garold A. Waddington, Feb. 1, 1918, to July 31, 1918. Lieut. David M. Collins, Aug. 6, 1918, to Nov. 11, 1918.
5. Balch.....	Nov. 4, 1917	.....do.....	Capt. Wm. S. Miller, Nov. 4, 1917, to Junr 11, 1918. Commander Wm. F. Amsden, June 12, 1918, to Aug. 19, 1918. Commander Lee Payne Johnson, Aug. 20, 1918, to Nov. 11, 1918.
6. Barry (CT).....	Sept. 23, 1917	.....do.....	Commander Wm. F. Ansdn, Sept. 23, 1917, Jan. 31, 1918. Commander Roy P. Amrich, Feb. 4, 1918, to Aug. 7, 1918. Lieut. Hy. P. Samson, Aug. 8, 1918, to Nov. 11, 1918.
7. Beale.....	Jan. 15, 1918	.....do.....	Commander Chas. T. Blackburn, Jan. 15, 1918, to Oct. 16, 1918. Lieut. Commander Frank A. Braisted, Oct. 17, 1918, to Nov. 11, 1918.
8. Benham.....	May 15, 1917	.....do.....	Commander Jesse Bishop Gay, May 15, 1917, to July 10, 1917. Commander David Lyons, July 11, 1917, to Feb. 18, 1918. Commander Wm. F. Halsey, jr., Feb. 19, 1918, to May 18, 1918.
9. Burrows.....	June 22, 1917	.....do.....	Commander Harold V. McKittrick, June 22, 1917, to June 18, 1918. Lieut. Commander Abner M. Steckel, June 8, 1918, to Nov. 11, 1918.
10. Breese.....	Oct. 22, 1918	.....do.....	Lieut. Commander Jos. McE. B. Smith, Oct. 22, 1918, to Nov. 11, 1918.
11. Bell.....	July 31, 1918	.....do.....	Commander Douglas L. Howard, July 31, 1918, to Nov. 11, 1918.
12. Caldwell.....	Feb. 28, 1918	.....do.....	Commander Byron McCandless, Feb. 28, 1918, to Nov. 11, 1918.
13. Chauncey, sunk (CT).	Sept. 23, 1917	Nov. 19, 1917	Lieut. Walter E. Reno, Sept 23, 1918, to Nov. 19, 1917; died Nov. 19, 1917.
14. Colhoun.....	Aug. 10, 1918	Nov. 11, 1918	Commander Benyaud B. Wygant, Aug. 10, 1918, to Nov. 11, 1918.
15. Connor.....	May 17, 1917	.....do.....	Capt. Alfred G. Howe, May 17, 1917, to Nov. 11, 1918.
16. Conyngham.....	Apr. 29, 1917	.....do.....	Capt. Alfred W. Johnson, Apr. 29, 1917, to Nov. 7, 1917. Commander Jesse B. Gay, Nov. 8, 1917, to Mar. 25, 1918. Commander Herbert H. Michael, Mar. 26, 1918, to Aug. 18, 1918. Lieut. Commander Richard F. Bernard, Aug. 19, 1918, to Sept. 20, 1918. Lieut. Commander Grattan C. Dichman, Sept. 21, 1918, to Nov. 11, 1918.
17. Craven.....	Oct. 9, 1918	.....do.....	Lieut. Commander Millington B. McComb, Oct. 9, 1918, to Nov. 11, 1918.

Destroyers and coast torpedo vessels on duty in war zones, Apr. 6, 1917, to Nov. 11, 1918—Continued.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
18. Cassin.....	May 17, 1917	Nov. 11, 1918	Commander Walter N. Vernon, May 17, 1917, to Nov. 16, 1917. Commander Abram Claude, Nov. 16, 1917, to Oct. 31, 1918. Commander C. C. Hartigan, Oct. 31, 1918, to Nov. 11, 1918.
19. Cummings.....	May 22, 1917	.....do.....	Commander Geo. F. Neal, May 22, 1917, to Dec. 31, 1917. Commander Owen Bartlett, Jan. 1, 1918, to Sept. 30, 1918. Commander Hy. Kent Hewitt, Oct. 1, 1918, to Nov. 11, 1918.
20. Cushing.....	May 15, 1917	.....do.....	Commander David C. Hanrahan, May 15, 1917, to Nov. 23, 1917. Lieut. Commander Louis P. Davis, Nov. 23, 1917, to Mar. 23, 1918. Commander W. D. Puleston, Mar. 23, 1918, to Aug. 29, 1918. Lieut. Commander J. H. Hoover, Aug. 29, 1918, to Nov. 11, 1918.
21. Dale (CT).....	Oct. 17, 1918	.....do.....	Lieut. Commander Edward W. Hanson, Sept. 23, 1917, to June 29, 1918. Lieut. Paul Fitzsimons, June 29, 1918, to June 30, 1918. Lieut. Commander Roy Pfeff, July 1, 1918, to Sept. 4, 1918. Lieut. Commander Benj. H. Lingo, Sept. 5, 1918, to Nov. 11, 1918.
22. Davis.....	Apr. 24, 1917	.....do.....	Lieut. Commander Rufus F. Zogbaum, Jr., Apr. 24, 1917, to Dec. 19, 1917. Commander Wm. Victor Tomb, Dec. 19, 1917, to Aug. 24, 1918. Lieut. Commander Benjamin V. McCandlish, Aug. 25, 1918, to Nov. 11, 1918.
23. Decatur (C. T.).....	Sept. 23, 1917	.....do.....	Commander Ralph R. Stewart, Sept. 23, 1917, to Jan. 31, 1918. Lieut. Commander Harry A. McClure, Feb. 1, 1918, to Aug. 4, 1918. Lieut. Wm. B. Hatch, Aug. 4, 1918, to Nov. 11, 1918.
24. Dent.....	Nov. 3, 1918	.....do.....	Commander Burrell C. Allen, Nov. 3, 1918, to Nov. 11, 1918.
25. Dorsey.....	Sept. 16, 1918	.....do.....	Commander Geo. F. Neal, Sept. 6, 1918, to Nov. 11, 1918.
26. Downes.....	Oct. 18, 1917	.....do.....	Commander Alexander Sharpe, Jr., Oct. 18, 1917, to Nov. 11, 1918.
27. Drayton.....	May 28, 1917	.....do.....	Commander Douglas Legate Howard, May 28, 1917, to Dec. 1, 1917. Lieut. Commander Geo. N. Barker, Dec. 2, 1917, to June 14, 1918. Lieut. Commander Millington B. McComb, June 15, 1918, to Aug. 20, 1918. Lieut. Commander Chas. C. Ross, June 15, 1918, to Aug. 11, 1918.
28. Duncan.....	Nov. 3, 1917	.....do.....	Commander Roger Williams, Nov. 3, 1917, to May 7, 1918. Commander Mathias E. Menley, May 8, 1918, to Aug. 24, 1918. Lieut. Commander Calvin H. Cobb, Aug. 25, 1918, to Nov. 11, 1918.
29. Dyer.....	July 17, 1918	.....do.....	Commander Fred. H. Potest, July 17, 1918, to Nov. 11, 1918.
30. Ericsson.....	May 17, 1917	.....do.....	Commander Chas. T. Hutchins, May 17, 1917, to Dec. 31, 1917. Commander Lawrence N. McNair, Jan. 1, 1918, to May 18, 1918. Commander Ralph R. Stewart, May 19, 1918, to July 11, 1918. Lieut. Commander Murphy J. Foster, July 12, 1918, to Nov. 11, 1918.
31. Fairfax.....	June 1, 1918	.....do.....	Commander Stanford C. Hooper, June 1, 1918, to Aug. 16, 1918. Lieut. Commander Jas. A. Saunders, Aug. 17, 1918, to Sept. 21, 1918. Lieut. Commander Guy C. Barnes, Sept. 22, 1918, to Nov. 11, 1918.

Destroyers and coast torpedo vessels on duty in war zones. Apr. 6, 1917, to Nov. 11, 1918—Continued.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
32. Fanning.....	June 23, 1918	Nov. 11, 1918	Lieut. Commander Francis Cogswell, June 23, 1918, to Oct. 21, 1918. Lieut. Commander Geo. N. Reeves, jr., Oct. 22, 1918, to Nov. 11, 1918.
33. Flusser.....	Aug. 6, 1917	.....do.....	Lieut. Commander Ralph G. Walling, Aug. 6, 1917, to June 13, 1918. Lieut. Commander Francis A. LaRoche, June 14, 1918, to Oct. 30, 1918. Lieut. Commander Ewart G. Haas, Oct. 31, 1918, to Nov. 11, 1918.
34. Gregory.....	June 23, 1918	.....do.....	Commander Arthur P. Fairfield, June 23, 1918, to Aug. 8, 1918. Lieut. Commander Chas. W. McNair, Aug. 9, 1918, to Nov. 11, 1918.
35. Hopkins (CT).....	May 21, 1918	.....do.....	Lieut. Arthur S. Walton, May 21, 1918, to Oct. 24, 1918. Lieut. Commander Robert G. Tobin, Oct. 25, 1918, to Nov. 11, 1918.
36. Hull (CT).....	.....do.....	.....do.....	Lieut. Commander Robt. S. Haggart, May 2, 1918, to Nov. 11, 1918.
37. Isabel.....	Jan. 23, 1918	.....do.....	Lieut. Commander H. E. Shoemaker, Jan. 23, 1918, to July 24, 1918. Lieut. Lewis W. Comstock, July 24, 1918, to Nov. 11, 1918.
38. Israel.....	Sept. 13, 1918	.....do.....	Lieut. Commander Geo. N. Barker, Sept. 13, 1918, to Nov. 11, 1918.
39. Jarvis.....	May 30, 1917	.....do.....	Commander Louis P. Davis, May 30, 1917, to Dec. 2, 1917. Commander Ralph G. Parker, Dec. 3, 1917, to June 14, 1918. Lieut. Commander Ernest L. Gunther, June 15, 1918, to Nov. 11, 1918.
40. Jenkins.....	May 28, 1917	.....do.....	Lieut. W. H. Lee, Jan. 3, 1918, to May 28, 1917. Lieut. Commander T. J. Keheler, Jan. 3, 1918, to June 1, 1918. Lieut. Commander J. L. Kauffman, June 1, 1918, to Sept. 1, 1918. Lieut. H. V. Baugh, Sept. 2, 1918, to Oct. 8, 1918. Commander Henry G. Shoner, Oct. 9, 1918, to Nov. 11, 1918.
1. Kimberly.....	May 21, 1918	.....do.....	Capt. Alfred W. Johnson, May 21, 1918, to Sept. 7, 1918. Lieut. Commander Harry A. McClure, Sept. 7, 1918, to Oct. 6, 1918. Commander Chas. G. Davy, Oct. 7, 1918, to Nov. 11, 1918.
2. Lamberton.....	Aug. 20, 1918	.....do.....	Lieut. Commander Frank Slingluff, jr., Aug. 22, 1918, to Nov. 11, 1918.
3. Lamson.....	July 23, 1917	.....do.....	Lieut. Commander Wm. R. Furnell, July 23, 1918, to June 30, 1918. Lieut. Commander Donald B. Beary, June 14, 1918, to Oct. 29, 1918. Lieut. Commander Clifford E. Van Hook, Oct. 29, 1918, to Nov. 11, 1918.
4. Lansdale.....	May 21, 1918	.....do.....	Lieut. Commander Cary Walthall Magruder, Oct. 28, 1918, to Nov. 11, 1918.
5. Lawrence (CT).....	.....do.....	.....do.....	Lieut. Wm. Kelly Beard, May 21, 1918, to Nov. 11, 1918.
3. Lea.....	Oct. 2, 1918	.....do.....	Commander David W. Bagley, Oct. 2, 1918, to Nov. 11, 1918.
7. Little.....	May 21, 1918	.....do.....	Capt. Joe. K. Taussig, May 21, 1918, to Aug. 28, 1918. Lieut. Commander Leland Jordon, jr., Aug. 29, 1918, to Nov. 11, 1918.
3. Luce.....	Sept. 27, 1918	.....do.....	Commander Ralph C. Parker, Sept. 27, 1918, to Nov. 11, 1918.
2. Jacob Jones (torpedoed.)	May 4, 1917	Dec. 6, 1917	Lieut. Commander David W. Bagley, May 4, 1917, to Dec. 6, 1917.
1. MacDonough (CT) ..	Jan. 26, 1918	Nov. 11, 1918	Lieut. Commander Robt. M. Hinckley, Jan. 26, 1918, to Aug. 7, 1918. Lieut. Commander Wm. D. Chandler, jr., Aug. 8, 1918, to Nov. 11, 1918.

Destroyers and coast torpedo vessels on duty in war zones, Apr. 6, 1917, to Nov. 11, 1918—Continued.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
51. Manley.....	Dec. 1, 1917	Nov. 11, 1918	Commander Robt. L. Berry, Dec. 1, 1917, to Apr. 9, 1918. Lieut. Wallace B. Phillips, Apr. 10, 1918, to June 30, 1918. Commander Robt. L. Berry, July 1, 1918, to Nov. 11, 1918.
52. Maury.....	Aug. 2, 1918	.....do.....	Commander Jno. Hy. Newton, Sept. 23, 1918, to Nov. 11, 1918.
53. Mayrant.....	May 21, 1918	.....do.....	Commander Eldred B. Armstrong, May 21, 1918, to Nov. 5, 1918. Lieut. Commander Herbert G. Gates, jr., Nov. 5, 1918, to Nov. 8, 1918. Lieut. Commander Wm. N. Richardson, jr., Nov. 8, 1918, to Nov. 11, 1918.
54. McCall.....	Feb. 5, 1918	.....do.....	Lieut. Commander Edward K. Lang, Feb. 5, 1918, to Sept. 10, 1918. Lieut. Commander Fred T. Berry, Sept. 11, 1918, to Nov. 11, 1918.
55. McDougal.....	Apr. 29, 1917	.....do.....	Commander Arthur P. Fairfield, Apr. 29, 1917, to Dec. 2, 1917. Commander Wm. T. Conn, jr., Dec. 3, 1917, to Mar. 25, 1918. Commander Vaughn K. Coman, Mar. 26, 1918, to Oct. 21, 1918. Lieut. Commander Francis Cogswell, Oct. 22, 1918, to Nov. 11, 1918.
56. McKee.....	Aug. 7, 1918	.....do.....	Commander Wm. Hy. Lee, Aug. 7, 1918, to Nov. 11, 1918.
57. Monaghan.....	Nov. 5, 1917	.....do.....	Lieut. John F. Cox, Nov. 15, 1917, to June 25, 1918. Lieut. Raleigh C. Williams, June 26, 1918, to Aug. 15, 1918. Lieut. Commander Edmund W. Strother, Aug. 16, 1918, to Nov. 11, 1918.
58. Murray.....	Oct. 7, 1918	.....do.....	Lieut. D. W. Hamilton, Oct. 7, 1918, to Nov. 11, 1918.
59. Nicholson.....	May 20, 1917	.....do.....	Capt. Byron Andrew Long, May 20, 1917, to July 30, 1917. Lieut. Commander Geo. N. Barker, July 31, 1917, to Aug. 13, 1917. Capt. Frank D. Berrien, Aug. 13, 1917, to Jan. 28, 1918. Commander Jno. C. Fremont, Jan. 29, 1918, to Mar. 22, 1918. Commander Chas. E. Smith, Mar. 23, 1918, to Aug. 12, 1918. Lieut. Commander Thalbert N. Alford, Aug. 12, 1918, to Nov. 11, 1918.
60. O'Brien.....	.....do.....	.....do.....	Commander Chas. A. Blakely, May 20, 1917, to Oct. 2, 1917. Lieut. Commander Romauld, Oct. 3, 1917, to Oct. 11, 1917. P. P. McLewski, Oct. 11, 1917, to Oct. 19, 1917. Lieut. Commander Romauld. Commander Chas. A. Blakely, Oct. 12, 1917, to Oct. 17, 1917. Lieut. Commander Donald W. Hamilton, Oct. 20, 1917, to Oct. 23, 1917. P. P. McLewski, Oct. 18, 1917, to Oct. 18, 1917. P. P. McLewski (one day), Oct. 24, 1917. Lieut. Commander Chas. A. Blakely, Oct. 25, 1917, to Feb. 26, 1918. Commander Martin K. Metcalf, Feb. 27, 1918, to July 31, 1918. Commander Welson H. Goss, Aug. 1, 1918, to Aug. 7, 1918. Commander Martin K. Metcalf, Aug. 8, 1918, to Aug. 18, 1918. Commander Nelson H. Goss, Aug. 19, 1918, to Oct. 28, 1918. Lieut. Commander Walter F. Lafrenz, Oct. 29, 1918, to Nov. 11, 1918.
61. Parker.....	July 1, 1917	.....do.....	Commander Halsey Powell, July 1, 1917, to Apr. 6, 1918.

Destroyers and coast torpedo vessels on duty in war zones, Apr. 6, 1917, to Nov. 11, 1918—Continued.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
62. Parker.....	July 1, 1917	Nov. 11, 1918	Commander Wilson Brown, Apr. 7, 1918, to Oct. 30, 1918. Lieut. Commander Wallace Phillips, Oct. 31, 1918, to Nov. 11, 1918.
63. Patterson.....	May 28, 1917	.....do.....	Commander John H. Newton, May 28, 1917, to Nov. 4, 1917. Lieut. Commander Spencer S. Lewis, Nov. 5, 1917, to Sept. 6, 1918. Commander Warren C. Nixon, Sept. 7, 1918, to Nov. 11, 1918.
64. Paulding.....	.....do.....	.....do.....	Commander John S. Barleon, May 28, 1917, to Apr. 8, 1918. Lieut. Commander Frank Slingluff, Apr. 8, 1918, to July 10, 1918. Lieut. Commander Lorain Anderson, July 10, 1918, to Oct. 15, 1918. Lieut. Commander Alger H. Dresel, Oct. 15, 1918, to Nov. 11, 1918.
65. Paul Jones (CT)....	May 21, 1918	.....do.....	Lieut. Leo H. Thebaud, May 21, 1918, to Nov. 11, 1918.
66. Perkins.....	June 1, 1917 May 21, 1918	Nov. 25, 1917 Nov. 11, 1918	Lieut. Commander Forney M. Knox, June 1, 1917, to Nov. 25, 1917. Lieut. Commander Forney M. Knox, May 21, 1918, to Aug. 15, 1918. Lieut. Commander Earl A. McIntyre, Aug. 16, 1918, to Nov. 11, 1918.
67. Perry (CT).....	.....do.....	.....do.....	Lieut. Commander Jas. H. Taylor, May 21, 1918, to Nov. 11, 1918.
68. Porter.....	Apr. 29, 1917	.....do.....	Capt. Ward K. Wortman, Apr. 29, 1917, to Dec. 2, 1917. Lieut. Commander Amos Loder, Dec. 3, 1917, to Dec. 14, 1917. Commander Wm. H. Lee, Dec. 15, 1917, to Apr. 30, 1918. Commander Arle A. Corwin, May 1, 1918, to July 21, 1918. Lieut. Commander Jas. Thos. Alexander, July 22, 1918, to Nov. 11, 1918.
69. Preble (CT).....	May 21, 1918	.....do.....	Lieut. Andrew H. Mack, May 21, 1918, to Nov. 11, 1918.
70. Preston.....	July 25, 1918	.....do.....	Lieut. Commander Cary W. Magruder, July 25, 1917, to June 15, 1918. Lieut. Commander Jno. Howard Wellbrock, June 15, 1918, to Nov. 11, 1918.
1. Radford.....	Sept. 30, 1918	.....do.....	Lieut. Commander Arthur S. Carpenter, Sept. 30, 1918, to Nov. 11, 1918.
2. Rathburne.....	June 24, 1918	.....do.....	Capt. Ward Kenneth Wertman, June 24, 1918, to Sept. 20, 1918. Lieut. Commander Jno. N. Holt, jr., Sept. 21, 1918, to Nov. 11, 1918.
3. Reid.....	July 28, 1918	.....do.....	Commander Chas. C. Slayton, July 28, 1917, to May 25, 1918. Lieut. Commander Walter S. Davidson, May 26, 1918, to Nov. 11, 1918.
4. Roe.....	Nov. 15, 1917	.....do.....	Lieut. Commander Guy C. Barnes, Nov. 15, 1917, to June 9, 1918. Lieut. T. N. Shark, June 10, 1918, to June 12, 1918. Lieut. Commander Chas. A. Pownell, June 12, 1918, to Aug. 12, 1918. Lieut. Commander Wm. A. Hodgman, Aug. 13, 1918, to Sept. 17, 1918. Lieut. Robt. W. McReynolds, jr., Sept. 18, 1918, to Sept. 20, 1918.
75. Rowan.....	May 12, 1917	.....do.....	Lieut. Commander Howard H. J. Benson, Sept. 21, 1918, to Nov. 11, 1918. Capt. Chas. E. Courtney, May 12, 1917, to Dec. 2, 1917. Commander Douglas L. Howard, Dec. 3, 1917, to Mar. 20, 1917. Commander Frank H. Sadler, Mar. 20, 1918, to Aug. 26, 1918. Lieut. Commander Howard A. Flanigan, Aug. 27, 1918, to Oct. 24, 1918. Commander Edmund S. Root, Oct. 25, 1918, to Nov. 11, 1918.

Destroyers and coast torpedo vessels on duty in war zones. Apr. 6, 1917, to Nov. 11, 1918—Continued.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
76. Sampson.....	May 19, 1917	Nov. 11, 1918	Commander Burrell C. Allen, May 19, 1917, to Dec. 3, 1917. Commander Reuben L. Walker, Jan. 1, 1918, to Aug. 23, 1918. Lieut. Commander Mark L. Hersey, jr., May 15, 1918, to Nov. 11, 1918.
77. Shaw.....	June 28, 1917	.....do.....	Commander Milton S. Davis, June 28, 1917, to Apr. 8, 1918. Capt. David C. Hanrahan, Apr. 9, 1918, to May 14, 1918. Lieut. Commander Van Leer Kirkman, jr., May 15, 1918, to Nov. 11, 1918.
78. Sigourney.....	June 1, 1918	.....do.....	Commander Walter N. Vernou, June 1, 1918, to Aug. 28, 1918. Commander Wm. D. Puleston, Aug. 29, 1918, to Oct. 16, 1918. Commander Walter N. Vernou, Oct. 16, 1918, to Nov. 11, 1918.
79. Smith.....	July 22, 1917	.....do.....	Commander Jacob H. Klein, July 22, 1917, to June 15, 1918. Lieut. Commander Jas. C. Byrnes, jr., June 16, 1918, to Nov. 7, 1918. Commander Frank C. Martin, Nov. 8, 1918, to Nov. 11, 1918.
80. Sterret.....	May 28, 1917	.....do.....	Commander Geo. W. Simpson, May 28, 1917, to Mar. 29, 1918. Commander Matthias E. Manly, Mar. 30, 1918, to May 14, 1918. Lieut. Commander Jas. T. Alexander, May 15, 1918, to May 20, 1918. Commander Allan S. Farquhar, May 21, 1918, to Oct. 13, 1918.
81. Stewart (CT).....	Sept. 20, 1917	.....do.....	Lieut. Commander Donald T. Hunter, Oct. 14, 1918, to Nov. 11, 1918. Lieut. Commander Harvey S. Halslip, Sept. 20, 1917, to July 18, 1918. Lieut. Commander Eugene T. Oates, July 19, 1918, to Nov. 11, 1918. Lieut. Commander Thomas Baxter, Nov. 2, 1918, to Nov. 11, 1918.
82. Stockton.....	Feb. 3, 1918	.....do.....	Commander Harry A. Balbridge, Feb. 3, 1918, to Nov. 11, 1918.
83. Stribling.....	Aug. 16, 1918	.....do.....	Commander Geo. C. Logan, Aug. 16, 1918, to Nov. 11, 1918.
84. Stringham.....	July 3, 1918	.....do.....	Commander Neil E. Nicholas, July 3, 1917, to Oct. 16, 1918. Commander Wm. D. Puleston, Oct. 17, 1918, to Nov. 11, 1918.
85. Talbot (U. S.). ¹	July 22, 1918	.....do.....	Commander Isaac F. Dortch, July 22, 1918, to Oct. 17, 1918. Commander Geo. Wm. Kenyon, Oct. 18, 1918, to Nov. 11, 1918.
86. Taylor (U. S.).....	July 10, 1918	.....do.....	Commander Chas. Thos. Hutchins, jr., July 10, 1918, to Nov. 11, 1918.
87. Terry.....	Jan. 15, 1918	.....do.....	Lieut. Commander Jno. F. Shafroth, jr., Jan. 15, 1918, to Sept. 3, 1918. Lieut. Commander Robert E. Rogers, Sept. 4, 1918, to Nov. 11, 1918.
88. Trippe.....	May 28, 1917	.....do.....	Commander Robt. C. Giffen, May 28, 1917, to Mar. 21, 1918. Lieut. Commander Valentine N. Biog, Mar. 22, 1918, to May 24, 1918. Lieut. Commander Franklin P. Conger, Mar. 25, 1918, to July 20, 1918. Lieut. Commander Wm. A. Richardson, July 2, 1918, to Oct. 10, 1918. Lieut. Commander David H. Stuart, Oct. 11, 1918, to Nov. 11, 1918.
89. Truxton (C. T.).....	Sept. 13, 1917	.....do.....	Lieut. Commander Jas. G. Ware, Sept. 13, 1917, to Nov. 11, 1918.
90. Tucker.....	May 17, 1917	.....do.....	Commander Benyaurd B. Wrgant, May 7, 1917, to Dec. 21, 1918. Commander Walter H. Lassing, Dec. 22, 1917, to July 7, 1918.

¹ Did not operate in European waters until May, 1918.

Destroyers and coast torpedo vessels on duty in war zones, Apr. 6, 1917, to Nov. 11, 1918—Continued.

[Coast torpedo vessels marked "CT."]

United States vessels.	In war zone.		Commanding officer.
	From—	To—	
90. Tucker.....	May 17, 1917	Nov. 11, 1918	Lieut. Commander Douglas W. Fuller, July 8, 1918, to Oct. 10, 1918. Lieut. Commander Walter F. Lafrenz, Oct. 11, 1918, to Oct. 19, 1918. Lieut. Commander Douglas W. Fuller, Oct. 20, 1918, to Oct. 30, 1918. Lieut. Commander Josiah O. Hoffman, Oct. 31, 1918 (1 day). Commander Carroll S. Graves, Nov. 1, 1918, to Nov. 11, 1918.
91. Wadsworth.....	Apr. 29, 1917	.....do.....	Capt. Jos. K. Taussig, Apr. 29, 1917, to Nov. 14, 1917. Commander Isaac F. Dortch, Nov. 15, 1917, to Mar. 22, 1918. Commander Jno. C. Fremont, Mar. 23, 1918, to May 26, 1918. Commander Chas. C. Slayton, May 27, 1918, to Nov. 5, 1918. Commander Nelson H. Goss, Nov. 6, 1918, to Nov. 11, 1918.
92. Wainwright.....	Apr. 29, 1918	.....do.....	Commander Fred. H. Potest, Apr. 29, 1917, to Dec. 26, 1917. Commander Robert A. Dawes, Dec. 27, 1917, to July 5, 1918. Lieut. Commander Emory Fitch Clement, July 7, 1918, to Nov. 11, 1918.
93. Walke.....	May 20, 1917	Nov. 25, 1917	Commander Chas. F. Russell, May 30, 1917, to Nov. 30, 1917. Lieut. Commander Herbert W. Underwood, Dec. 1, 1917, to Oct. 17, 1918. Lieut. Commander Stephen E. Robinson, Oct. 18, 1918, to Nov. 11, 1918.
94. Warrington.....	May 28, 1917	Nov. 11, 1918	Lieut. I. F. Dortch, May 28, 1917, to Nov. 13, 1917. Commander G. W. Kenyon, Nov. 14, 1917, to June 14, 1918. Lieut. Commander Norman R. Van der Veer, June 15, 1918, to June 29, 1918; July 1, 1918, to Oct. 29, 1918. Lieut. Commander Wm. F. Greshman, Oct. 30, 1918, to Nov. 11, 1918.
95. Waters.....	Aug. 10, 1918	.....do.....	Commander Chas. F. Russell, Aug. 10, 1918, to Nov. 11, 1918.
96. Whipple (CT).....	Sept. 11, 1917	.....do.....	Commander Harry J. Abbott, Sept. 11, 1917, to Aug. 18, 1918. Lieut. Commander Robert M. Doyle, Aug. 19, 1918, to Nov. 11, 1918.
97. Wickes.....	July 3, 1918	.....do.....	Commander Jno. S. Barloon, July 31, 1918, to Nov. 11, 1918. (Ship commissioned July 31, 1918.)
98. Wilkes.....	June 20, 1917	.....do.....	Commander Jno. Chas. Fremont, June 20, 1917, to Jan. 28, 1918. Capt. Frank D. Berrien, Jan. 29, 1918, to June 9, 1918. Commander Thos. A. Symington, June 10, 1918, to Oct. 20, 1918. Commander Andres S. Hickey, Oct. 21, 1918, to Nov. 11, 1918.
99. Winslow.....	May 1, 1917	.....do.....	Commander Neil E. Nichols, May 7, 1917, to Aug. 13, 1917. Commander Ralph C. Parker, Aug. 14, 1917, to Sept. 28, 1917. Commander Neil E. Nichols, Sept. 29, 1917, to Dec. 31, 1917. Commander Fred'k V. McNair, Jan. 1, 1918, to June 21, 1918. Lieut. Commander Francis Rockwell, June 22, 1918, to Nov. 11, 1918.
00. Woolsey.....	Sept. 30, 1918	.....do.....	Commander Fred'k V. McNair, jr., Sept. 30, 1918, to Nov. 11, 1918.
01. Worden (CT).....	Jan. 25, 1918	.....do.....	Lieut. Commander Jos. McE. B. Smith, Jan. 25, 1918, to Aug. 15, 1918. Lieut. Commander Oscar C. Badger, Aug. 16, 1918, to Oct. 26, 1918. Lieut. Commander Francis M. Collier, Oct. 27, 1918, to Nov. 11, 1918.

Here is another question you asked the other day, but I can give you that later.

Just now, Mr. Chairman, I called your attention to the fact when you were discussing announcement of policy, I did not remember the date. It was April 13.

Senator KEYES. Mr. Chairman, I would just like, in order that we may try to keep in mind what is taking place before us here, to know what question the Secretary is answering now.

Secretary DANIELS. I am answering as to our destroyers.

Senator KEYES. I wish the stenographer would find the question and read it. I would like to know just what the question is.

The CHAIRMAN. At the present rate, Mr. Secretary, we will be here all summer.

Secretary DANIELS. Well, I have my summer clothes.

The CHAIRMAN. You answer very few of the questions that are asked of you, but you put in a lot of matter into the record that is highly irrelevant to the questions asked.

Secretary DANIELS. I have not put in anything that is not relevant.

The CHAIRMAN. It may not be irrelevant to the investigation, but it is irrelevant to the questions.

Secretary DANIELS. It is absolutely relevant to the questions, and necessary to give a clear answer.

The CHAIRMAN. My idea was that when we examined you here we would get all the assistance that it was in your power to give in clearing up these matters and in clearing them up as briefly as possible.

Secretary DANIELS. That is what I am giving you.

The CHAIRMAN. We are going on at a very large expense to the Government, holding these hearings, and it seems to me if you will bring your answers down to reasonable length, and follow the lines we are trying to find out about, it would be very helpful and profitable.

Secretary DANIELS. This is the first time——

The CHAIRMAN. Nobody wants to hide anything or to suppress any information; but I think that you ought to cooperate with us.

Secretary DANIELS. I am cooperating with you. I have given you an abundance of information.

The CHAIRMAN. Of course, we have these questions to ask, and we are going to ask them, no matter how long it takes.

Secretary DANIELS. My dear sir, I shall answer them.

The CHAIRMAN. But you must have a great many other duties to perform besides coming up to these hearings.

Secretary DANIELS. Yes; I work all day and a part of the night: but when you ask me a question I shall exercise my right to answer the question.

The CHAIRMAN. But every question we ask, you come out with a long statement, taking up all sorts of other matters, and we never get anywhere.

Secretary DANIELS. I only answer your questions so as to give you full information. I can only give it to you "yes" or "no."

The CHAIRMAN. But we do not get any answer, "yes" or "no."

Secretary DANIELS. You have got a clear, concise, and full answer to every question that you have asked me.

The CHAIRMAN. You heard this question I asked you last. I have forgotten it long ago.

Secretary DANIELS. You asked me a question about the use of destroyers. If you will ask the question again, Mr. Chairman, I will try to answer it.

The CHAIRMAN. I read you a statement by the General Board showing what they found was needed by the British after conference with Admiral Browning and other representatives of the British Government, and also a statement that the General Board wished to reiterate with the utmost earnestness that disaster to Great Britain could only be prevented by the action as above; and I then asked you if that was in this letter where you speak of the heartiest cooperation with the Allies, and where you explained the cooperation that had already taken place, and I wanted to know whether that statement by the General Board was taken into consideration when you say that you already had the heartiest cooperation with the Allies, in regard to the submarine situation.

Secretary DANIELS. We always had the heartiest cooperation from the beginning; but, of course, that cooperation was made larger and larger as time went on. That recommendation of the General Board, as I recall it, was May 5, was it?

The CHAIRMAN. May 3.

Secretary DANIELS. May 3. By May 28 we had sent 28 destroyers over to Great Britain to give this hearty cooperation.

The CHAIRMAN. Section 6 of this letter says:

(6) Pursuant to the above general policy, the Navy Department announces as its general plan of action the following:

Now, that general plan of action was for the future, was it not?

Secretary DANIELS. No; it was the continuation of a general plan of action. It was only announcing what was done and what would continue to be done.

The CHAIRMAN. It announced—

Its willingness to send its minor fighting forces, comprised of destroyers, cruisers, submarine chasers, auxiliaries, in any number not incompatible with home needs.

There would be no point in announcing action that had already been taken.

Secretary DANIELS. As I said, Capt. Pratt felt that a formal statement ought to be made.

The CHAIRMAN. Was not this to tell Admiral Sims that you were going to send these vessels over in the future?

Secretary DANIELS. Admiral Sims already knew that.

The CHAIRMAN. How did he know it? He stated he had no information.

Secretary DANIELS. Did he say that?

The CHAIRMAN. As I recall, his testimony shows that the cable of July 3 was the first he received about any plans of the department.

Secretary DANIELS. I do not recall that, but I do know— Let us see, here is a telegram I sent to Admiral Sims on May 3, which shows. "Berehaven is suggested," it says, "by the British commission." This is about the time that the British commission was here. It says:

Berehaven is suggested by the British commission in Washington as a base for the destroyers operating with the Allies.

This is May 3; so that he must have known that before that formal announcement, because I said to him:

Ultimately there will be 36 destroyers sent, as well as the *Melville* and as well as the *Dixie*, should the latter be required.

There on May 3 is my telegram to Admiral Sims telling him he would get 38 destroyers out of the 50 we had.

The CHAIRMAN. That is about destroyers. This states—

Its willingness to send its minor fighting forces, comprised of destroyers, cruisers, submarine chasers, and auxiliaries in any numbers not incompatible with home needs.

Secretary DANIELS. We sent submarine chasers in addition to those destroyers.

The CHAIRMAN. But no statement of policy had been made to him, as I understand, prior to this time; and I think he so stated in his testimony. I read further in this letter that the department also stated—

Its unwillingness, as a matter of policy, to separate any division from the main fleet for service abroad, although it is willing to send the entire battleship fleet abroad to act as a united but cooperating unit when, after joint consultation of all admiralities concerned, the emergency is deemed to warrant it.

Is not that a plan for the future?

Secretary DANIELS. I say this was a formal announcement of plans, most of which we had already carried out, and which were known. Some of them, of course, referred to the future. Have you another copy of that letter, Mr. Chairman. I would like to see it.

The CHAIRMAN. It also states—

Its willingness to discuss more fully plans for joint operations.

I take it that is for the future?

Secretary DANIELS. That is more fully; yes. That shows we had already decided on general operations.

The CHAIRMAN. But "more fully."

Secretary DANIELS. But we wished to discuss it more fully as the war went on.

The CHAIRMAN. Yes.

Secretary DANIELS. We never closed the door as to new conditions.

The CHAIRMAN. So that this plan is for the future?

Secretary DANIELS. This plan announces in part the plan we had already put into effect, and announces also what we would continue to do.

The CHAIRMAN. Of course, you had been discussing policies at this meeting on April 11, and Sims had been discussing policies right along?

Secretary DANIELS. When? We were making arrangements—

The CHAIRMAN. You were discussing policies with the British at this meeting of April 11?

Secretary DANIELS. We settled the policies at that meeting.

The CHAIRMAN. Yes; you settled them, and Admiral Sims had also been discussing policies, which policies had probably been settled before, and it had been determined to go ahead.

Secretary DANIELS. No, Mr. Chairman; Admiral Sims could not settle policies.

The CHAIRMAN. I did not say he did. He had been consulting with them, and those plans had probably been settled, too. I did not say that he had settled them.

Then you would not say that the detailed plans and policies you had on April 6, 1917, were so comprehensive that it was not necessary to add to them?

Secretary DANIELS. Mr. Chairman, nothing in a war before the war begins, or any month after the war, is so fixed and adamant that changed conditions do not require other discussions and changed methods to meet changing conditions.

The CHAIRMAN. But you claim that this letter was simply additional to the plan of cooperation?

Secretary DANIELS. This letter was a formal statement, most of what we had already done, some of which was to state that we would more fully cooperate and more fully consider, and future policies also.

The CHAIRMAN. Although Admiral Sims states, I think, in his testimony that it was the first plan of cooperation that he had received?

Secretary DANIELS. It is a very singular thing.

The CHAIRMAN. And with which he was familiar?

Secretary DANIELS. But it is a very singular thing, when here on page 1470 of the typewritten record, on April 13, 1917, is a statement—I think that I had better read that to you. Here is a telegram, now, sent by Admiral Browning, of the British Admiralty, which, of course, Admiral Sims knew all about, saying:

Following points of agreement have been arrived at with United States Navy Department: French admiral sending telegram to Paris. Begins question raised by British Admiralty first. One squadron immediately ready to proceed from North Atlantic port on receipt of information of escape of raider.

At that time the French and British were very uneasy about raiders. [Continuing reading:]

Operations of ships of this squadron will be coordinated with those of allied squadrons. Area of operations, from the parallel of Cape Sable to the longitude 50, thence south to the parallel of 20 north.

Second. Second squadron on the east coast of South America will be provided as soon as possible in the near future. Area of operations from Brazilian coast along parallel 5 south to meridian 30 west, thence south to 15, then parallel with coast to the latitude of 35 south, then along that parallel to the coast.

Third. Six destroyers will be sent over in the immediate future. These will be based on British or French port, as may be considered most necessary.

Fourth. United States will look after west coast of North America from Canadian to Colombian boundaries.

Fifth. Relations with Chile excellent; United States armed Government nitrate vessels will maintain continuous service for the present which will be utilized.

Sixth. United States China squadron will be maintained for the present.

Seventh. United States will supervise Gulf of Mexico and Central America as far as Colombian boundary, thence east to west point of Jamaica, along west coast of Jamaica to the east point of Virgin Islands, thence north to the southeastern limit of area referred to in first.

Eight. If and when enemy submarines appear—

Now gentlemen, I call that to your attention. Here were the British and French admirals, April 13, 1917, stressing the point

of the danger of enemy submarines appearing on this coast, and we agreed—

If and when enemy submarines appear they will attempt to send several submarines to the Canadian coast, but this is only possible if a parent ship or accommodations of men on shore provided.

Following points raised by French minister of marine: First. Provision of small patrol for French coast not yet possible owing to requirements of home (? (defense) when available however they will be supplied, France escorting them over and manning if necessary. Every possible effort will be made immediately to supply these. Too much reliance should not be placed however in early success.

Second. Provision of armed naval transports for carrying railway material to France; one will be furnished immediately, a second and third as soon as possible.

Further message transmitted in another cipher:

I will remain at Washington until I know whether you have any further instructions and to complete conference upon details on which I have been requested to advise Navy Department.

Now, that was the agreement we made, and that was the agreement and the policy settled upon the Navy Department on April 13, 1917.

The CHAIRMAN. Which was at the outset of the war, when you had very little knowledge of conditions and did not in any way cover the scope which you afterwards carried out?

Secretary DANIELS. I would not say, Mr. Chairman, that we had very little knowledge, because we had a conference with Admiral Browning, of the British Navy, who was fully advised—

The CHAIRMAN. He could not have been very fully advised.

Secretary DANIELS (continuing). And with Admiral Grasset, of the French Navy, who was fully advised.

The CHAIRMAN. He could not have been very fully advised, when he said all they wanted was a couple of submarines over there for moral effect.

Secretary DANIELS. I never said that.

The CHAIRMAN. I say when Browning said that.

Secretary DANIELS. He never said that.

The CHAIRMAN. Yes; that appears in the testimony.

Secretary DANIELS. He said that the supreme thing was to patrol the coast from Halifax to Brazil and to release their ships so that they might go back and engage in this antisubmarine warfare; and this, Mr. Chairman, I think is a very material point. He said:

Could you send at once one or two destroyers over for the moral effect, to show your flag there.

And we did that. He said:

I know that it is asking you very much to separate the small number of destroyers that the American Navy has—any of the destroyers—from the fleet. We could not do it.

The CHAIRMAN. "Has" or "has ready"?

Secretary DANIELS. What?

The CHAIRMAN. Did he say "the small number of destroyers that the American Navy has," or "has ready"?

Secretary DANIELS. "Has." I will not quote his words. He says. "Your small number." It is a very serious thing—

The CHAIRMAN. Well, within a little more than two weeks from that the General Board comes out with a plan stating there is de-

mand for a tremendous number of antisubmarine craft, and stating the absolute criticalness of the situation if they are not sent.

Secretary DANIELS. We knew that, and we had sent 35 destroyers over and a lot of patrol boats.

The CHAIRMAN. Not by that time.

Secretary DANIELS. Not at that date. By July.

The CHAIRMAN. Paragraph 2 of this letter speaks of—

the heartiest cooperation with the Allies to meet any future situation arising during the present war.

That is for the future?

Secretary DANIELS. This was a formal announcement of the policy that we had carried out and we would continue to carry out. It was past, it was present, and it was future.

The CHAIRMAN. It was evidently necessary in some way to convey that news to the other side.

Secretary DANIELS. Well, I have read you the statement of the missions coming here, and I have read you the telegram I sent to Admiral Sims on May 13, 1917, telling him we would send 36 destroyers and the *Melville* and the *Dixie*.

The CHAIRMAN. That is simply a specific statement about specific ships. That is not a statement about an outlined policy.

Secretary DANIELS. The only outlined policy here is "we will send you all the small craft we can."

The CHAIRMAN. Under that supposition—

Secretary DANIELS (interposing). I mean with reference to the small craft.

The CHAIRMAN. No; this is with reference to battleships. It says that you are willing to send over battleships if they are not divided.

Secretary DANIELS. We made this statement of what we had done, what we are doing, and of what for the future we would do.

The CHAIRMAN. What bureau, office, or board was charged with the responsibility of making war plans prior to 1917?

Secretary DANIELS. The General Board; and then in Operations they had a planning section.

The CHAIRMAN. And how many officers were devoting their entire time to the planning section of Operations prior to April 1, 1917?

Secretary DANIELS. I will get that information for you. I would not like to say until I had looked into the record.

The CHAIRMAN. Were there half a dozen, do you know?

Secretary DANIELS. I will get the number for you.

The CHAIRMAN. Will you have that to-morrow morning?

Secretary DANIELS. To-morrow morning; yes, sir.

The CHAIRMAN. On Saturday, May 15, you stated that in March, 1915, after a study of the European War, Admiral Dewey forwarded to you a statement of preparations necessary to put the Navy Department in readiness for war by the addition of administrative plans to the General Board's war plans?

Secretary DANIELS. March 15? I would like to see what I said, Mr. Chairman.

The CHAIRMAN. It is page 5460.

Secretary DANIELS. What do you mean by administrative plans, Mr. Chairman?

The CHAIRMAN. Wait one minute until I find it.

Secretary DANIELS. Did you say March 13, 1915?

The CHAIRMAN. March 13, 1915.

Secretary DANIELS. Here it is.

The CHAIRMAN. Was this the war plan of the administrative section of the General Board?

Secretary DANIELS. This was the preparation necessary to be made by the Operations Office of the War Department to insure a state of preparedness for war. That is what it was.

The CHAIRMAN. On page 5461 the admiral refers to "the administrative section of the plan for war."

Secretary DANIELS. He refers to what?

The CHAIRMAN. The administrative section of the plan for war. That is in section 2 of the letter.

Secretary DANIELS. Yes; he points out there what the various bureaus should do.

The CHAIRMAN. What I want to know is whether this was the war plan of the administrative section of the General Board?

Secretary DANIELS. I do not know what you mean by the administrative section of the General Board.

The CHAIRMAN. The admiral refers to it in here.

Secretary DANIELS. My reports come to me always not from a section of the General Board, but from the General Board. I have never had a report saying that it came from any section. Their subdivisions into sections are within the General Board, not for the department.

The CHAIRMAN. This was a distinctly important war plan, was it not?

Secretary DANIELS. This was distinctly an important statement of the preparations necessary to be made by the bureaus and offices of the Navy Department to insure a state of preparedness for war.

The CHAIRMAN. Mr. Secretary, on page 579 of Admiral Fiske's autobiography, which has been put into the record as evidence, appears the statement that he handed you—

The new administrative section of the general war plan, prepared by G. B. with accompanying letter signed by Admiral Dewey.

Secretary DANIELS. What date did he say he did that?

The CHAIRMAN. March 18, 1915. Is that the document forwarded by Admiral Dewey, and to which you referred on Saturday the 15th of this month?

Secretary DANIELS. Where is Admiral Dewey's statement? I do not recollect Admiral Fiske ever handing me any such statement.

The CHAIRMAN. He states in his autobiography:

March 18. I took to Secretary and explained to him carefully the new administrative section of the general war plan, prepared by G. B., with accompanying letter signed by Admiral Dewey. He demurred a good deal in a general way, and finally declared he did not wish to take any action in the matter for the present. I then discussed with him two papers, prepared by myself, one called "Meditations on organization" and the other "Meditations on mobilization." He made little comment, but simply returned them to me.

Is this letter of Admiral Dewey's the one to which he refers?

Secretary DANIELS. I say I have a very clear recollection of his talking to me, not on particular dates; but his chief talk being about plans of organization, which he thought of chiefly, and he brought

them in periodically. I have no recollection if he brought it to me on March 18, 1913, as he was going out of office in a few days, and I knew that I was going to get another Chief of Operations and let him go. He says in his autobiography that he would have bet 10 to 1 I would not keep him, and he would have won the bet. He could have bet a million to one.

The CHAIRMAN. But that has nothing to do with this question.

Secretary DANIELS. Now, it may be, if he brought it to me—

The CHAIRMAN. I simply want to identify the letter.

Secretary DANIELS. I say I do not recollect his ever bringing that letter to me. If he did, knowing that he was going out of office, I may have not acted upon it that day or that week, or may have held it until I decided to have a new Chief of Operations.

The CHAIRMAN. The aid for Operations was the official channel for all communications from the General Board, was he not?

Secretary DANIELS. I do not recall his ever bringing me this.

The CHAIRMAN. I asked you a question, Mr. Secretary. The aid for Operations was the official channel for communications from the General Board?

Secretary DANIELS. Yes; he was.

The CHAIRMAN. And Admiral Fiske was the aid for Operations at that time?

Secretary DANIELS. He was.

The CHAIRMAN. In your statement of Saturday, May 15, you said that you signed the preparedness document at that time, on March 13, 1915, prepared by Admiral Dewey.

Admiral Benson declares you said to him that you would not take any action on it for the present.

Secretary DANIELS. As I said just now, that may be entirely true, because we had just secured new legislation by which the aid for Operations would cease to exist and we would have a Chief of Operations. Admiral Benson was going out, and if he presented it to me at all, I probably held it to act upon it when his successor came in.

The CHAIRMAN. On page 583 of his autobiography he states that he took the same paper to you on April 16 and that you said you would talk to him about it next week. That was at least a month, or about a month, after he had taken it to you first, was it not?

Secretary DANIELS. I say I do not recollect his ever bringing it to me.

The CHAIRMAN. You did not deny that he did bring it?

Secretary DANIELS. I do not deny it; but if he had brought it to me, I probably would have held it to act upon it, Mr. Chairman, when the Chief of Operations came in, because I was in daily consultation with all the bureau chiefs and knew that they were moving along on lines of preparedness.

The CHAIRMAN. On page 5462 of the typewritten record you state as follows:

To carry out the preparation recommended by the General Board, I sent a confidential letter to the head of every bureau and office similar to the following, which was sent to the Chief of the Bureau of Ordnance. That letter tells them to carry out the General Board's directions.

That was May 28, 1915.

Secretary DANIELS. May 28? The new Chief of Operations had then come in. Is that right?

The CHAIRMAN. Mr. Secretary, on page 578 of Admiral Fiske's autobiography appears the following:

During all the time that I had been aid for Operations I had been endeavoring to bring about a procedure whereby each bureau should make quarterly reports to the Navy Department as to its exact state of preparedness for war, including what had been done and what remained to be done. This idea was not original with me, for I had inherited that idea from my predecessor, Admiral Vreeland, who had inherited it from Admiral Wainwright. As there was considerable labor involved in the work, and as the matter was not very urgent, Wainwright and Vreeland had never finished the scheme or secured the signature of the Secretary to it. But shortly after I became aid for operations the possibility of war with Japan brought the necessity for such a scheme sharply to my attention. During all the two years that had elapsed since then I had kept the war plan committee of the General Board at work on the details of the plan, so that they kept it up to date, and I had urged the Secretary several times to sign it and let me get the procedure into operation. I explained to him that until the administrative section of the general war plan, which we usually called the "administrative plan," had been approved and signed by him the Navy Department could not be regarded as an efficient organization, and that if war broke out we should be caught absolutely unprepared; that we could not even begin to prepare until after that paper had been signed. On each occasion, also, I told him that I thought there was great probability of our getting into the present war.

On page 583—

Secretary DANIELS. Well, now, do you wish me to speak about that?

The CHAIRMAN. Yes; go ahead. Have you anything to say about that?

Secretary DANIELS. Well, I have this to say, that the bureaus were very hard at work. If Admiral Fiske ever mentioned an administrative plan to me, I do not recall it. If he did, he mentioned it—I do not recollect it. The chief conversation he had with me during all those months was not of preparation but of telling me that the Navy Department never could be prepared until we had a chief of Operations who would have complete and full power, and that really what we had to do was to organize our Navy on the German method. I did not take much stock in it; but, as he talked about it from week to week and from month to month, I finally said, "Admiral, prepare me a diagram showing me what you mean by all this business;" and so he came down and—

The CHAIRMAN. Mr. Secretary, I want to take that question up of the Operations, and its responsibility, at a later period.

Secretary DANIELS. Oh, but this comes in exactly with Admiral Fiske. I say everything he brought to me was always wound up and involved and included in his plan for the reorganization of the Navy Department on the Prussian plan, so that anything else he suggested always wound up with that.

The CHAIRMAN. But you do recall the letter of Admiral Dewey which you put here in your statement?

Secretary DANIELS. Yes.

The CHAIRMAN. And you do recall that it was presented to you, whether by Admiral Fiske or not?

Secretary DANIELS. Yes; and that letter was presented to me by the Chief of Operations and signed by me later.

The CHAIRMAN. That is your reply. I am talking about a letter of Admiral Dewey; that was presented to you shortly after it was written, was it not?

Secretary DANIELS. I say, if Admiral Fiske presented it to me, I do not recollect it.

The CHAIRMAN. You do not recollect his presenting it?

Secretary DANIELS. But I probably, inasmuch as it would have to do with Operations, held it until the new Chief of Operations came in.

The CHAIRMAN. But you have no question that you received it at the time?

Secretary DANIELS. If I did not, I ought to have done so.

The CHAIRMAN. You have no question about that, have you?

Secretary DANIELS. I do not recollect it at all.

The CHAIRMAN. On page 583 of Admiral Fiske's book appears this statement:

April 16 * * * I took to Secretary the administrative section of the General Board's war plan and pointed out that until he approved it the department had no war plan; because although the General Board had plans, they all depended on the department and the bureaus being ready, and they could not even begin to get ready until he approved the General Board's administrative plan, whereby the bureaus and officers reported to department every quarter their exact state of readiness. I fully expected that, after our talk yesterday, he would sign the General Board's paper at once! To my amazement he said he would talk to me about it next week! The same thing occurred about three or four weeks ago. The recommending letter was signed by Dewey March 13, 1915, and is similar to letter two years ago that also was not acted on.

Now, Mr. Secretary, apparently this matter had been kept before you for at least two years, and you delayed action on it not only two months, but two years.

Secretary DANIELS. Not at all. If Admiral Fiske ever presented that letter to me in 1915 it was the first time I ever heard of it; and if he presented it to me, I held it over until the selection of the new Chief of Operations, who would have power and who would have influence, and would be an efficient man; so that I certainly should never have taken up any important matter with him in that time.

The CHAIRMAN. That would not hold up your whole course—

Secretary DANIELS. Wait a minute. I was going to say that the question of the Bureau of Ordnance and the Bureau of Construction and Repair presenting quarterly reports is a very good one, but presenting reports is a very small thing. They were all doing the work. I was in daily touch with them. I was in daily touch with every bureau chief, and they were moving ahead along these lines of preparedness.

The CHAIRMAN. Do you state, then, that the statement in Admiral Fiske's book which has been put in testimony here and is a part of the testimony, "and is similar to letter two years ago, that also was not acted upon," is false?

Secretary DANIELS. No; I never make a statement that any man makes a false statement. I say that I never heard of it before.

The CHAIRMAN. And that you never heard of the matters that were suggested in this letter of Admiral Dewey's?

Secretary DANIELS. Of this Fiske book?

The CHAIRMAN. No; I say you never had the matters that were in Admiral Dewey's letter presented to you before that letter of March 13, 1915?

Secretary DANIELS. I have no recollection of ever hearing of it.

The CHAIRMAN. Of ever hearing the question brought up at all?
Secretary DANIELS. No.

The CHAIRMAN. But you would not say for sure that it had not been presented to you?

Secretary DANIELS. I approved every report that Admiral Dewey sent to me for preparedness, from the time I came into office.

The CHAIRMAN. There seems to be a conflict of testimony.

Secretary DANIELS. Yes; a conflict. I think Admiral Fiske is mistaken. Does he present a report of Admiral Dewey there in his testimony?

The CHAIRMAN. Does what?

Secretary DANIELS. Does he present a report of Admiral Dewey, two years before?

The CHAIRMAN. He refers to it.

Secretary DANIELS. Now the thing to do about that, Mr. Chairman, is I will see if Admiral Dewey wrote such a report.

The CHAIRMAN. But that is the report we already have, is it not?

Secretary DANIELS. You are speaking of two years before?

The CHAIRMAN. Oh, two years before, you mean?

Secretary DANIELS. Yes——

The CHAIRMAN. He says:

The same thing occurred about three or four weeks ago. The recommending letter was signed by Dewey, March 13, 1915, and is similar to letter two years ago, that also was not acted on.

Secretary DANIELS. I have no recollection of ever seeing that.

The CHAIRMAN. What improvements have you made in the planning division since 1916?

Secretary DANIELS. Since 1916?

The CHAIRMAN. Yes.

Secretary DANIELS. In the act of March 5, 1915, Congress established the office of Chief of Operations, and under the Chief of Operations there is a planning section which has had at all times able officers who have been devoting their time to making plans. Before that I think there were but very few.

The CHAIRMAN. That was established when?

Secretary DANIELS. I think March 5, 1915.

The CHAIRMAN. And what improvements have been made during the war, if any?

Secretary DANIELS. Oh, it was under the Chief of Operations—the planning section; and they had Capt. Pratt and Capt. Schofield and Capt. McNamee.

The CHAIRMAN. I think they stated that there were very few at the outbreak of the war. Capt. Pratt stated there were only three of them in it, and that they did not give all of their time to it.

Secretary DANIELS. That section was under the Chief of Operations and that was directly in his control and his management.

The CHAIRMAN. Does the same organization exist now that existed when it was started?

Secretary DANIELS. The same organization that existed——

The CHAIRMAN. The same organization for the planning section?

Secretary DANIELS. In 1915?

The CHAIRMAN. Yes.

Secretary DANIELS. The Chief of Operations has the same planning section now as he had then.

The CHAIRMAN. And there has been no change in the organization?

Secretary DANIELS. I would not say there was or was not.

The CHAIRMAN. How many are there now in the planning section?

Secretary DANIELS. I will have to ask the Chief of Operations. I always detail to that office the men recommended by the Chief of Operations.

The CHAIRMAN. There should be a fully equipped planning section, should there not?

Secretary DANIELS. Yes; and there is.

The CHAIRMAN. In Operations?

Secretary DANIELS. Yes; and there is.

The CHAIRMAN. There is? That is, you now have sufficient officers working on it.

Secretary DANIELS. I can get you the number. That planning matter and the number of officers is entirely under the direction of the Chief of Operations.

The CHAIRMAN. Have you any plans for any improvement in the planning section?

Secretary DANIELS. I think the planning section has shown its fitness and worth. Admiral Coontz has not suggested to me any improvements in the planning section.

The CHAIRMAN. You do not contemplate any improvement in that section?

Secretary DANIELS. If the Chief of Operations were to suggest them, I should be very happy to do so.

The CHAIRMAN. But you do not know of any now?

Secretary DANIELS. I leave that matter to work out of it, to the Chief of Operations.

The CHAIRMAN. The planning section is something that comes under the authority of Congress, does it not? It is provided for by Congress.

Secretary DANIELS. No; I do not think Congress has any provision for it.

The CHAIRMAN. There is no legislation affecting it?

Secretary DANIELS. No, sir; I think not.

The CHAIRMAN. Are you sure?

Secretary DANIELS. The Chief of Operations, it is provided, shall have under him not less than 25 officers, I think it is, or 15 officers. Wait until I get the law. The law will show, Mr. Chairman. Here it is. It reads as follows:

There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy, appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparation and readiness of plans for its use in war: *Provided*, That if an officer of the grade of captain be appointed Chief of Naval Operations, he shall have the rank, title, and emoluments of a rear admiral while holding that position.

Not only that, but it is provided:

During the temporary absence of the Secretary and the Assistant Secretary of the Navy the Chief of Naval Operations shall be next in succession to act as Secretary of the Navy.

Under that provision he has a planning section, and it is entirely under the direction of the Chief of Operations.

The CHAIRMAN. And there is nothing said in the law about a planning section?

Secretary DANIELS. Nothing; that is the whole law.

The CHAIRMAN. You have no suggestions as to legislation at all in regard to the planning section?

Secretary DANIELS. No; none at all. The Chief of Operations has full authority.

The CHAIRMAN. Before you had been appointed as Secretary of the Navy, had you been especially interested in, and did you have an intimate knowledge of, naval affairs?

Secretary DANIELS. I should not say that I had an intimate knowledge of naval affairs. I was interested, as every good American citizen is, in the Navy. I had had some touch with it. I had been to the Naval Academy several times. My wife's brother was an officer in the Navy, and he lost his life in the Spanish-American War, and I have a very earnest and intense interest in it. In 1912, when there was a fight in Congress as to whether the Navy should be increased or strengthened, I wrote to all the Members of Congress of my State urging them to vote for the larger program.

The CHAIRMAN. But you had no special knowledge of naval affairs?

Secretary DANIELS. I suppose I had the same knowledge of naval affairs that Secretary Chandler or Secretary Long or Secretary Meyer, or any former civilian had.

The CHAIRMAN. I am not casting any aspersions on you, at all.

Secretary DANIELS. No; I did not qualify as an expert statistician or constructor or ordnance man. I came into the Navy Department as a citizen who was interested in the Navy, without expert knowledge.

The CHAIRMAN. After you became Secretary did you make a study of Navy Department organization?

Secretary DANIELS. I have not studied anything else except navies for seven years.

The CHAIRMAN. Did you then, and do you now, consider the Navy the first line of the Nation's defense?

Secretary DANIELS. Certainly; I did then, and have always done so.

The CHAIRMAN. And is not the organization of the Navy Department and the method of coordinating of these agencies one of the most important elements in naval preparedness and efficiency?

Secretary DANIELS. And that is done; yes.

The CHAIRMAN. That is what?

Secretary DANIELS. Certainly; and that is done now?

The CHAIRMAN. Upon taking office, or at any time thereafter, did familiarize yourself with the subject of departmental organization?

Secretary DANIELS. I have devoted about an average of from 6 to 12 hours a day to that work.

The CHAIRMAN. And when you became Secretary were you familiar with the report of the Moody-Mahan commission on Navy Department organization?

Secretary DANIELS. Not when I became Secretary of the Navy. I have read, as any intelligent newspaper editor would do, something about that; but I can not say that I was familiar with the document.

The CHAIRMAN. Were you familiar with the work of the Swift Board on the same subject?

Secretary DANIELS. Not before I became Secretary of the Navy; no, sir.

The CHAIRMAN. Did you familiarize yourself with both of those reports after you became Secretary of the Navy?

Secretary DANIELS. Yes. Of course, I read these reports, and I may say all the various debates and suggestions, and we have had debates and discussions in the Navy Department for years on the various kinds of organizations of the department.

The CHAIRMAN. And the Swift Board report practically confirmed the other, did it not—the Mahan report?

Secretary DANIELS. I do not remember, Mr. Chairman, exactly the differentiation between those reports.

The CHAIRMAN. What was the organization of the aids to bureau chiefs when you became Secretary?

Secretary DANIELS. They had 4 aids, 1 for Operations, 1 for Material, 1 for Personnel, and 1 for Inspection. They were not authorized by law. When I first came into office some of the aids recommended that I ask for legislation to legalize these aids. I told them I wished to make a study of the organization before I made any recommendations at all.

The aid for personnel was a fifth wheel—not needed—and I soon failed to have an aid for Personnel, but depended on the chief of the Bureau of Navigation, and the Personnel aid was only a go-between. The duty of inspection was better performed by the Chief of Inspection, now the Chief of Material, and so I ran the department on an organization, until the Chief of Operations was established, of an aid for Material and an aid for Operations.

The CHAIRMAN. The system that held the department when you came in was that of Moody and Mahan, was it not?

Secretary DANIELS. No; I think it was a system put in by Secretary Meyer.

The CHAIRMAN. That was established on the strength of their report, was it not?

Secretary DANIELS. I do not think so, but I will not say.

The CHAIRMAN. The Moody-Mahan commission was made up of Justice Moody, Justice Dayton, Admiral Mahan, Admiral Folger, among others. Did you not state in a published article in *Hearst's Magazine* that when you went into the department you found it encumbered by a system of aids?

Secretary DANIELS. I do not think I did. I said the system was a very poor system. I may have done so. I thought so.

The CHAIRMAN. You did publish such an article in *Hearts's Magazine*?

Secretary DANIELS. I do not know; I have written so many articles. I did not think it was a good system.

The CHAIRMAN. You would say that now, that it was encumbered by a system of aids?

Secretary DANIELS. I say I think it was a bad system. It was not the effective system.

The CHAIRMAN. Was not this statement a reflection upon and repudiation of the ideas of the seven or eight other officers or civilians that composed this commission?

Secretary DANIELS. If I thought that a certain organization was better than somebody else's, I would not call it a repudiation. I would call it a system—

The CHAIRMAN. I think the article says you stated it was encumbered with a system of aids.

Secretary DANIELS. I think it was an encumbrance. We had two high ranking officers, who were not needed and could render service somewhere else.

The CHAIRMAN. And in throwing this aside did you have the advice of any board or commission to throw it aside?

Secretary DANIELS. I did not.

The CHAIRMAN. Just from your own knowledge and examination of the facts you made this provision yourself?

Secretary DANIELS. Mr. Meyer established it on his own initiative; I reduced it one-half on my own initiative.

The CHAIRMAN. Yes; but Mr. Meyer did it acting on the report of the Moody-Mahon Board, did he not?

Secretary DANIELS. I do not think that influenced him. I think he did it because he thought it was the best system.

The CHAIRMAN. Was it not the system advised by them in their report?

Secretary DANIELS. I do not recall that it was. At any rate, if you will remember my direct testimony, I gave a very elaborate extract from a hearing before the House Congressional Committee when the Moody so-called report was before it, in which I quoted at length from the testimony of Assistant Secretary Darling who opposed it very earnestly, and made what I thought was a very able and convincing argument against the system then proposed. It was not the same as Mr. Meyer's; and I said in my direct testimony, Secretary Darling was right; and the Congress refused at that time to put that system in operation.

The CHAIRMAN. At any rate, in the spring of 1915 you gave it up to a certain extent, did you not?

Secretary DANIELS. Before 1915; I gave it up, I think. I think I displaced it in 1914—maybe in 1913.

The CHAIRMAN. You gave up the aid for Personnel?

Secretary DANIELS. Yes.

The CHAIRMAN. And also the aid—

Secretary DANIELS. For Inspections.

The CHAIRMAN. For Inspections, and you appointed another aid for Education, did you not?

Secretary DANIELS. That was after we established all the schools in all the stations and ships.

The CHAIRMAN. What influenced you in the organization of the Navy Department to follow the aid system during the first term of your administration?

Secretary DANIELS. It was greatly improved by reducing the aids from four to two, and then later by creating the Office of Operations.

The CHAIRMAN. From four to three it would be, would it not, if you provided for an aid for Education?

Secretary DANIELS. The aid for Education had charge of the schools, and had charge of all of the morale work of the Navy.

The CHAIRMAN. Do you consider the present Office of Operations a useful or valuable element in departmental organization?

Secretary DANIELS. Certainly.

Chairman. Did it do good work in the war?

Secretary DANIELS. Excellent, before the war and since the war.

Chairman. What would have been the result if there had been an Office of Operations as that office is now constituted?

Secretary DANIELS. It was better with an Office of Operations; if we had had an aid for Operations and an aid for Material, they both were strong men and with able, strong officers, they would have gone on very well. I have no great admiration for organizations. After all, the best organizations in the world made of able, efficient men surrounded by enough able and intelligent subordinates to carry on the policy laid down. I do not think that the Office of Chief of Operations is essential. I think it is an improvement. If I had had an aid for Operations and had given him the same power that the Chief of Operations would have had, he would have carried on the war very well.

Chairman. Could you have done that?

Secretary DANIELS. I could have done that; certainly.

Chairman. The aid for Operations never did have the same power that the Chief of Operations had?

Secretary DANIELS. I said that the Secretary of the Navy could have given it to him.

Chairman. Without any legislation with reference to that?

Secretary DANIELS. Yes; certainly.

Chairman. Did you take the first step to create the position of Chief of Operations?

Secretary DANIELS. I will give you a little history about that. As far as I had been in office a short time I became convinced that the present system was not the most effective and efficient system, and I made a study of the best methods of administration of the Navy. As a matter of fact, if you had had an aid for Material and an aid for Operations and the Secretary had given them such power and authority, the Navy Department could be conducted very well, because there are many officers of the Navy of great ability who believe that there would be a better system than the system we have now, if it were utilized.

Chairman. From your question—some time in the winter of 1914 Ad-ams, who had been preaching Prussianizing the Navy ever since he had been in office—

Chairman. I do not think he was preaching it under that name, was he?

Secretary DANIELS. Yes; he told me frankly that the German or the German military system—was the one that we ought to adopt those words, and he said, furthermore, that the only military man who really was capable in the best way was a man whose father had been a military chieftain. His obsession as to efficiency and German excellence were so great that I told him I did not believe he could Prussianize the Navy.

Chairman. Well, he did not call it Prussianizing the Navy, but he said the German system was the best in the world, and the nearer we got to it the better for the purposes of the Navy. That was his opinion and his belief, and he preached it pretty continuously. It made a very deep impression on me. But I have learned since—

I did not know it then—that Admiral Benson in his book—I have not read his book, but I have learned that in his book—he said he had a secret meeting with officers of the Navy, and they decided to try to get through, without my knowing it, legislation.

The CHAIRMAN. Where is that?

Secretary DANIELS. In some part of his book; and they decided to try to get some legislation, acting with a Member of Congress, which would make an organization in the Navy that would give to the Chief of Operations such large powers that, in my judgment, it would practically make a Secretary of the Navy unnecessary.

The CHAIRMAN. Will you give me the page where that statement appears?

Secretary DANIELS. I will look it up.

The CHAIRMAN. And give it to me.

Secretary DANIELS. I will; and they were working on a plan which would have, as I say, made a Secretary of the Navy unnecessary: would have really made a chief like Von Tirpitz, with more power than he had, even. That matter was brought up by a member of the Naval Affairs Committee.

I had been studying organization, as to what would be the best method, and I proposed to the Naval Affairs Committee exactly the very words that are in this bill creating the Chief of Operations, and they adopted it and made it law, which gives power to the Chief of Operations for the operation of the fleet. What Admiral Fiske wanted, and the other gentlemen wanted, was that the Chief of Operations should control the Navy Department. They wanted him charged with responsibility for the conduct of the Navy, would have given them entire control of the Navy Department. I opposed that. I took the ground that the Secretary of the Navy must be in control of the Navy Department, and the Chief of Operations must be charged with the responsibility for plans and the efficiency of the fleet in battle; and upon that was the difference of opinion. I am not criticizing anybody for wanting to Prussianize the Navy. I am not criticizing any man for believing that a Von Tirpitz would be better than the American plan; but I opposed that policy, and the Congress adopted the plan we have in operation, and it has worked very well. I will not say it is perfect; I have never seen any system in my life of any organization that I have regarded as perfect.

The CHAIRMAN. Then it was upon your recommendation that the naval appropriation act of 1914 provided that there should be a Chief of Operations?

Secretary DANIELS. It was.

The CHAIRMAN. In Admiral Fiske's book, on pages 567 to 589—and this book is in evidence before this committee—in this part that is connected with operations and planning, it is categorically stated that Admiral Fiske initiated the act which almost immediately produced the office of Chief of Naval Operations.

Secretary DANIELS. My answer to that is as I have said, that Admiral Fiske and certain Members of Congress wished to have a change in the organization which would have made the Chief of Operations virtually the Secretary of the Navy. I opposed that and defeated it, and went before the committee and secured the adoption of the act as it reads, under which we are operating now.

The CHAIRMAN. You say that Admiral Fiske surreptitiously and secretly had conspired with Representative Hobson to enact legislation taking the actual control of the Navy Department out of the hands of the civilian Secretary and putting it into the hands of a naval officer?

Secretary DANIELS. That is in my testimony.

The CHAIRMAN. That is in your testimony.

Secretary DANIELS. Yes. I think, Mr. Chairman, that an aid for operations under a Secretary of the Navy is perfectly within his province when he, as Admiral Fiske did, talks to the Secretary and issues certain policies. But I think when without telling the Secretary of the Navy that he was seeking to get legislation, he did that, it was not a very loyal and proper procedure; and so of course I did not keep in office a man who lacked the first element of loyalty.

The CHAIRMAN. I have here House Report No. 1344. Sixty-third Congress, third session, dated February 2, 1915. This was unanimously made by the Naval Committee of the House, a majority of whom were Democratic. I will put that report in the record, and I read now one or two sections [reading]:

Committee on Naval Affairs, to whom was referred H. R. 21257, a bill to create the Office of Chief of Naval Operations, and for other purposes, reports the same favorably with the recommendation that the bill do pass. The bill provides for the creation of a new office in the Navy Department to be known as the Chief of Naval Operations. This office is to be filled by an officer of the Navy on the active list not below the grade of rear admiral and elected for a term of four years by the President, by and with the advice and consent of the Senate. This officer, under the Secretary of the Navy, is to be responsible for readiness of the Navy for war and in charge of its general direction.

Secretary DANIELS. I observe, Mr. Chairman, it says "in charge of general direction." That is not in the law, you know.

CHAIRMAN. No; I am reading the House report.

Secretary DANIELS. Hobson's report.

CHAIRMAN (continuing reading):

The officer, under the Secretary of the Navy, is to be held responsible for the readiness of the Navy for war and in charge of its general direction. He is to perform only such duties as shall be assigned to him by the Secretary of the Navy. All such duties shall be performed under the authority of the Secretary of the Navy, and is given the same authority regarding orders issued by him as is given under existing law to the chiefs of bureaus of the Navy Department.

I will skip a little and read further on:

It is to be noted that the Secretary of the Navy retains absolute control over the operations of the Navy and the Chief of Operations performs only such duties as are assigned to him by the Secretary, and the orders are issued under the authority of the Secretary of the Navy. The principal or civilian control of the Navy Department is not in any way affected by the provisions recommended. The tentative duties assigned to the Chief of Naval Operations and his assistants will be such that they may be conveniently divided among nine committees or sections. The list would probably be as follows, etc.

Secretary DANIELS. Have you got in the hearing the law?

CHAIRMAN. Yes.

Secretary DANIELS. In my hearing I just stated that that was the law. I thought to go in, to show what was proposed by Mr. Hobson when the Congress enacted.

(The extract from the law, referred to by Secretary Daniels, is as follows:)

There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy, appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain, for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet, and with the preparation and readiness of plans for its use in war: *Provided*, That if an officer of the grade of captain be appointed Chief of Naval Operations he shall have the rank, title, and emoluments of a rear admiral while holding that position.

During the temporary absence of the Secretary and the Assistant Secretary of the Navy, the Chief of Naval Operations shall be next in succession to act as Secretary of the Navy.

The CHAIRMAN. That is what you had in mind when you described the surreptitious and secret attempt of Admiral Fiske to Prussianize the Navy?

Secretary DANIELS. I do not know whether that was the exact organization they had in mind, but they were acting to make a change.

The CHAIRMAN. Yes; that is true. Your opposition to this initial move to create the Office of Naval Operations seems to make it evident that you did not make the first move looking to the establishment of that office.

Secretary DANIELS. No, I did not. I say I was studying the question of organization, and was considering what was the best plan to submit to Congress, when I learned purely by accident, that this legislation was being considered; and then I took up with responsible officers and members of the Naval Affairs Committee what was the plan of organization, and we worked out the law, which is now on the statute books.

The CHAIRMAN. It is substantially that same thing, with the responsibility taken away, is it not?

Secretary DANIELS. It is the difference between black and white. In other words, what you have read, while on its face it sounds as if it does not do so, puts the Chief of Operations in control of the Navy. It says "under the Secretary"; but as Secretary Darling pointed out in his testimony when he opposed a like measure, if you ever do that and put the Chief of Operations in control of the Navy Department and the direction of the Navy, then you must utterly waste your money, and you utterly waste everything by having a Secretary of the Navy at all: and, therefore, I strongly opposed: I vigorously opposed the provision that did that.

The CHAIRMAN. Yes, but you cut down the powers that were given to him under that.

Secretary DANIELS. I made a new law; I made a new proposition.

The CHAIRMAN. Does it improve, substantially, the mere cutting out of the provisions as to responsibility?

Secretary DANIELS. I say this—

The CHAIRMAN. Have you the law there?

Secretary DANIELS. I would like to read a letter I have here, Mr. Chairman.

The CHAIRMAN. Will you read the law first, and I will compare it with the House report?

Secretary DANIELS. Yes; here is the law. It reads:

There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy, appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain, for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet—

The operations of the fleet, bear in mind, not the Navy or the Navy Department—

and with the preparation and readiness of plans for its use in war: *Provided*, that if an officer of the grade of captain be appointed Chief of Naval Operations, he shall have the rank, title, and emoluments of a rear admiral while holding that position. During the temporary absence of the Secretary and Assistant Secretary of the Navy, the Chief of Naval Operations shall be in succession to act as Secretary of the Navy.

Now, the difference is vital. One is the original idea that Mr. Hobson proposed and Admiral Fiske advocated, which was that the Chief of Operations should have the Navy under his direction. This provides that he shall be charged with the operations of the fleet with the preparation and readiness of plans for its use in war. Now, the distinction is as wide as the ocean. Under the original idea the Chief of Operations would have dominated the whole department. There would have been no necessity for the Secretary of the Navy.

My theory of the Chief of Operations is—and I think it is a very important position—that he shall be the thinking man about plans, tactics, about strategy; that he shall have under his control, in his direction, people who are experts in the Navy. Under our relations the War College is under the Chief of Operations; the Naval Intelligence, giving us all the information as to naval affairs of the world, is under his direction; the Chief of Communications, controlling communications all over the world, is under his direction—and he has the planning and the operation of the fleet and things that are allied with it. He has nothing to do under this graph with the Ordnance Department except, under the regulation, once a week the Chief of Operations has a meeting with the other chiefs, and he is kept in touch with what is going on. But he has no direction or control over anything in the Navy except the planning, the planning, the operating. He can not expend a dollar. He has no authority to do that. He ought not to have. And when you make the Chief of Operations what Mr. Hobson and what Admiral Fiske wanted, whenever you make him responsible for the operation of the Navy, you will then make him an administrative and not a thinking and operating officer.

I know very truly that some of the ablest officers of the Navy ought to be done. I have great respect for their judgment, but it would be a great mistake, in my judgment, and I therefore am very earnest in this matter. I talked to all the members of the Affairs Committee about it. My recollection is that when it was brought about three-fourths of the House committee and all Senate committee favored the law as we had it and did not think that we ought to make a Chief of Operations as a Frankenstein head or controlling power of the Navy. Why, if you do not want any Secretary of the Navy; you do not want

any Assistant Secretary of the Navy; and you ought to abolish those two offices immediately. No man of ability, no man with a sense of responsibility, would be Secretary of the Navy if the Chief of Operations was going to conduct the whole Navy Department and establishment; so that you can therefore, if you wish to do that, if you wish to put a military man in control of the Navy Department. It is not done in any English-speaking navy in the world. Why, Mr. Chairman, in Great Britain a first sea lord, a second sea lord, no sea lord except the first lord of the Admiralty, has any power at all except such power as he derives from the first lord of the Admiralty. It is not so in any English-speaking nation in the world; and I will tell you this, that we need military men for military purposes; we ought never to have anybody but a naval officer for the Chief of Operations, or at the head of the War College, or at the head of Intelligence, or to control Ordnance; although we might have a very distinguished civilian who might run the ordnance production. But you do not want a military officer in control of the Navy Department. It is contrary to all the principles of American Government.

Now, the Hobson measure which I opposed and which Congress defeated—the Hobson measure camouflages military domination. It says that under the Secretary of the Navy the Chief of Operations shall direct the Navy; and, naturally, if he is to direct—

The CHAIRMAN. Where are the particularly objectionable words, the word "responsible" or the word "fleet" instead of Navy?

Secretary DANIELS. Let me read the words. The particular thing is that the one act makes a man responsible for plans and operating the fleet—that is the law, and that is a good law—while the other makes him responsible for the direction of the Navy. Under that law he would control the Bureau of Construction and Repair, he would control the Bureau of Operations, he would control the Bureau of Engineering, he would control everything in the department; and the idea is, and I heard a naval officer of ability, a man whom I have great respect for, say, "Why, here is the way the Navy ought to be organized." He said, "The Chief of Operations ought to be the only naval officer in the Navy that ever saw the Secretary. Every department, every bureau, every admiral who wants anything done, ought to go to the Chief of Operations, and then the Chief of Operations ought to present it to the Secretary. He should be the only means of communication and conduit pipe." I utterly disagree with that theory; and if you will read this act you will see what it means. Now, listen to this Hobson report:

This officer, under the Secretary of the Navy, is to be held responsible for readiness of the Navy for war and in charge of its general direction.

Now, I object to that. The Secretary of the Navy must be in charge of the general direction of the Navy. The Chief of Operations must be responsible—

The CHAIRMAN. That says "under the Secretary of the Navy"? Secretary DANIELS. Oh, I understand; but we all know what power is.

The CHAIRMAN. You do not think that he would be under the Secretary after a while?

Secretary DANIELS. Well, I think this: I think that if he had that power, the Secretary would either be a rubber stamp or he would soon get out. Now, therefore, what do you need a Secretary or? The business of the Secretary of the Navy is the direction of the Navy; otherwise you do not need him; and I think you make a military direction of the Navy when you want a civilian direction of the Navy. Now, I grant you that a military control of the Navy department in the matter of ordnance, in the matter of tactics, of tactical matters, is better than any civilian that you probably could get; but, Mr. Chairman, we have got that now. We have got naval officers who attend to all technical matters. I have never known a Secretary of the Navy who determined, himself, the caliber of his guns, or the speed of a ship, or who did not have officers who in technical matters were the men looked to.

Then there is another theory about it. After all is said and done, our Government the Congress has got to determine how big the Navy is, its personnel, its promotion, its direction, its control. Now, America, in any country that is free, they need to keep the military in its place. It has a very great place, a place of very great importance; but it is subordinate to the civil. The business of the Navy is not to declare war; it is to fight when Congress and the President say fight. It has no business with civil affairs. A Secretary of the Navy ought to be able to interpret the Navy's needs to the civilian Congressmen. You ought to have both points of view; you ought to have the naval point of view, taking the technical matter from trained men, and you ought to have the civilian point of view; he ought to be able to go and tell the Naval Affairs Committee what is needed. Here is what the naval force is; here is what the Army is. But, gentlemen, here is another aspect of it, and before you ought to have a civilian Secretary; and if he is going to have a civilian Secretary, for heaven's sake do not put a bill on him that says that somebody else is going to have the direction of the Navy because while you may say "under the Secretary" all you get is a camouflage, and in a little while any officer who takes office will say, "Well, I am responsible for the direction of the Navy. Congress has told me so, and here is my charge," and he is to use that power; and that is human nature, and if you had a man he could not do all these things. But think of it! What have we now? A Chief of Operations, who is responsible for the direction or the operation of the Navy, has a big job. That is a think-

It is a technical job, a strategical job. He must think about it and it was a great idea to have a man like that. But here we have Admiral Taylor, Chief of Construction and Repair, the man in his profession in the world. This would put Admiral Taylor and the whole Construction and Repair Department under the Chief of Operations. You take the Chief of Operations; take what we have done in the matter of this great new propulsion under Admiral Griffin, a great officer; think of the matters of propulsion and machinery, everything that came out of motive power would be under operations. The building of the ships we build, the buying of everything we buy would come under operations. You would have to have a superman to hold the reins. It would be a great mistake, I think, a fatal mistake, in America.

I therefore went to the Naval Affairs Committee when it was up and pointed out the difference, and I said, "Gentlemen, if you put these words in—that he shall have the direction of the Navy—you ought to abolish the bureau chiefs and you ought to abolish the Secretary of the Navy and the Assistant Secretary of the Navy, and ought not to let a civilian come into the department except on business, and you ought to make it a purely military organization. You will get effectiveness, military effectiveness, but you will not get an American organization.

I feel very deeply about that; I feel that it is the very crux of Americanism. I feel so deeply about it that while it does not concern me any more than any other citizen of America, it is fundamentally un-American. There is not an English-speaking nation in the world where it has ever been suggested seriously; and these words are camouflage; it is doing by indirection what Hobson and Fiske could not have done by direction; and the Naval Affairs Committee of the House and the Senate, I think almost unanimously, when the matter was discussed, said, "Of course, we will have this chief of operations, we will give him power with the fleet, we will give him power to think, we will give him power for strategy; but he is not an administrator, and we will take the word "responsible" from the bill.

The CHAIRMAN. And the responsibility that the House would have given him lies now not with the Chief of Operations, but with the Secretary of the Navy?

Secretary DANIELS. With the Secretary and with the bureau chiefs.

The CHAIRMAN. Well, the responsibility is, of course, ultimately with the Secretary.

Secretary DANIELS. Yes; the responsibility lies with Secretary.

(The House report above referred to is here printed in full in the record, as follows:)

[House Report No. 1344, Sixty-third Congress, third session.]

CHIEF OF NAVAL OPERATIONS.

The Committee on Naval Affairs, to whom was referred H. R. 21257, a bill to create the Office of Chief of Naval Operations, and for other purposes, report the same favorably with the recommendation that the bill do pass.

The bill provides for the creation of a new office in the Navy Department to be known as the Chief of Naval Operations. This office is to be filled by an officer of the Navy on the active list not below the grade of rear admiral and appointed for a term of four years by the President, by and with the advice and consent of the Senate. This officer, under the Secretary of the Navy, is to be held responsible for readiness of the Navy for war and in charge of its general direction. He is to perform only such duties as shall be assigned to him by the Secretary of the Navy and such duties shall be performed under the authority of the Secretary of the Navy, and is given the same authority regarding orders issued by him, as is now given under the existing law to the chiefs of bureaus of the Navy Department.

To assist this officer in preparing general and detail plans of war, 15 officers, of and above the rank of lieutenant commander of the Navy or major of the Marine Corps, are to be assigned for this exclusive duty.

At the present there exists a General Board and Naval War College, neither of which seems to be equipped for adequately performing this duty; nor have they sufficient officers under their jurisdiction to do this fundamental work for preparation of the plans of war. The demands upon the staff of the War College and the members of the General Board for other questions involving the efficiency of the personnel and material of the Navy are such that they have not had time and opportunity to fully prepare in detail and perfect this

work. It is the opinion of the committee that the necessity for such an office exists in the Naval Establishment.

It will be noted that the Secretary of the Navy retains absolute control over the office and the Chief of Operations performs only such duties as are assigned by the Secretary of the Navy. The principal or civilian control of the Navy Department is in no way affected by the provision recommended. The tentative duties of the proposed Chief of Naval Operations and his assistants will be such that the work may be conveniently divided among nine committees or sections. The sections would probably be as follows:

The historical section, which covers the study and analysis of past campaigns.

The policy section, which studies the inherent interests of all nations and the policies which logically follow.

The strategic section studies the theaters of possible wars from every aspect and the sources and means of supply for the military and naval forces.

The tactical section studies tactics, particularly in relation to strategy; determines and endeavors to insure that the tactics of the fleet are kept constantly up to date and conform to the character of the ships and weapons that will be used.

The logistic section studies the logistic aspects of the strategical and tactical plans, involving the requirements as to supplies at the beginning of the war, during the war, and the organization of transportation, and many other things incident to the auxiliary service, including the inspection of merchant vessels.

The organization section studies and devises plans of organization for war in order to secure the most efficient flow of authority, the best administrative and tactical grouping of the forces, detail of personnel for command, and the orders necessary for the execution of the various plans.

The mobilization section prepares and keeps always up to date plans for mobilizing for each of the various stations arising from conflict with possible enemies.

The training section studies methods for the training of the naval forces and devises strategical problems and tactical exercises involving combined maneuvers of battleships, auxiliaries, submarines, aircraft, and mining vessels.

The executive section sees that the plans devised are executed.

The importance of this work may be judged from the fact that Great Britain has a separate organization, called "the naval war staff," composed of 39 line officers, a few staff officers, and about 31 civilian assistants; in Germany, by the admiral staff, composed of 22 officers, with 13 officer assistants and a librarian; in Japan, by a general staff, which is immediately under the Emperor.

Such an agency as is hereby established in the Department of the Navy to coordinate and harmonize all parts of that establishment, prepare plans in detail, and supervise their execution, the committee believes is necessary for the effective or efficient accomplishment of the object for which the Navy exists to insure our country victory in war. The committee unanimously recommends that the bill do pass.

The subjoined statements of Rear Admiral A. M. Knight, United States Navy, in an address before the Efficiency Society of New York, sets forth the importance of this legislation:

"The War College considers that every effort of the fleet, and every effort of the department in connection with the fleet, should have for its sole aim the war efficiency of the fleet.

"There is much about the Navy which is splendidly efficient but as a whole it is far less efficient than it can and ought to be. Our ships are fine. Our officers are capable, industrious, and ambitious. Our enlisted men are the equals of those in other navies. But efficient ships and officers and men do not alone make an efficient Navy. They must be welded into an efficient whole by a unity of organization and administration and purpose which coordinates their capabilities and directs their efforts toward a common end, wisely selected, and very clearly seen. Here is the first point at which we are lacking.

"I come now to what is, perhaps, the most important part of my subject—the organization of the Navy Department, viewed from the standpoint of efficiency. There can be no question that the existing organization is inadequate and would break down under the strain of war. The administration starts from too many sources and flows through too many channels. It lacks the unity of purpose which would come from recognition of the facts that a navy has one excuse for existing, and only one—that it shall always be ready to strike on the minute

and with every element of power concentrated behind its blow for the defense of the country.

"Do not misunderstand me. I am not telling you that our organization is wholly bad. I am telling you that it is inadequate. In many cases it works rather surprisingly well. But if you analyze these cases you will find that in so far as the results are good, they are so in spite of the system and because of some personal factor which has compelled efficiency. Moreover, and this is the crux of the whole matter, the cases with which we can deal at the present time are illustrations of peace efficiency, whereas the efficiency upon which our attention should be fixed unwavering is war efficiency; not because we are going to have war, but because we may have it, and because the one supreme duty of the Navy is to be ready for it if it comes.

"I suppose this relation of the Navy to war, whether possible war or actual war, has always been understood more or less clearly. But it is a singular fact that the organization of the Navy Department takes no account of it. War is the one thing for which no arrangement is made. There are seven bureaus in the department, each with clearly defined duties; but in all the elaborate legislation creating these bureaus and defining their duties there is not a word about the duty of keeping the Navy in readiness for war or preparing plans for war or conducting war after it begins. There would be a certain element of comedy in this if there were not so many elements of possible tragedy. There is a bureau in the department charged with the construction and repair of ships, one with the design of machinery, one with the preparation of ordnance, one with the direction of personnel, and so on; but nowhere is it said 'this bureau shall be responsible for the readiness of the fleet for war, for the preparation of war plans, and for the conduct of war.'

"This, then, is the last and great defect in the efficiency of the Navy. How shall it be remedied? The answer is, I think, by the creation in the Navy Department of a division of strategy and operations, preferably not coequal with the present bureaus, but superior to them and standing between them and the Secretary. This arrangement would be recognition of the fact that all the activities of the present bureaus should lead up to the Secretary through a channel which coordinates them all and directs them toward war efficiency.

"I have explained that the defects in the organization of the Navy Department are a lack of coordination of authority, as a result of which the administration starts from too many sources and flows through too many channels, and a total lack of provision for planning and carrying forward the operations of war. It must not be supposed that these defects have escaped recognition or that no efforts have been made to correct them. The most successful of the efforts to secure coordination between the bureaus was the adoption during the last administration of a system of aids to the Secretary, who coordinated the work of the various bureaus, and who, when important questions were under consideration, formed a council upon which he could call for advice. The weak point about this system was, and is, that the aids have never been legalized by Congress, and therefore have no permanent status whatever. In spite of this, they are in a position to do much toward improving the administration of the department.

"The General Board was called into existence in 1900 by an order of the Secretary of the Navy to provide a body for the consideration of war plans and allied subjects. It has performed and is performing work of the very highest importance, but it, like the council of aids, lacks legislative sanction, although Congress has for many years past shown great interest in its work and not a little deference to its views.

"Another and a very important agency to which the Navy Department looks for a contribution to its work in strategy and other matters connected with preparation for war and the conduct of war is the Navy War College at Newport. The War College has been in existence since 1884 and has been an important factor in the education of officers from the very beginning. For some reason, however, it has failed until very recently to command the full recognition which it has deserved from the Navy Department or even from the officers of the Navy. The present Secretary of the Navy visited the college shortly after coming into office and, with an insight of which many naval officers have shown themselves incapable, recognized its possibilities for usefulness and pronounced himself its friend. Since that time he has done everything to forward this work which could be dictated by the most thorough comprehension of its mission and its needs, and as a result of this generous support, both moral and material, the college has taken its proper place as an institution for the training of officers

for high command and for the development of the art of naval warfare. Thus the college is enabled to contribute something toward making good the lack of a strategic division in the Navy Department itself.

"You will see, therefore, that although no law takes cognizance of the necessity for keeping the Navy ready for war, there are many agencies which cooperate toward that end—the council of aids, to which the Secretary would naturally turn in an emergency, the General Board, and the War College. These agencies are so closely in sympathy that they are able to cooperate harmoniously with each other and with the fleet, and this cooperation is having important and very valuable results. This does not change the fact that there should be—that indeed there must be—in the Navy Department itself and close to the Secretary a coordinating office to bring the efforts of these and other agencies to an administrative focus bearing directly upon the efficiency of war. Such a coordinating office I have already sketched as a division of strategy and operations immediately below the Secretary of the Navy in authority.

"The creation of this office would provide a policy for the Navy, so far as the activities of the Navy itself are concerned, insuring unity of effort and shaping plans toward the end which we have recognized to-night as the proper end of all our efforts—preparedness for war."

The CHAIRMAN. Now, Mr. Secretary, you stated about recommending this office yourself. Were not the facts that your recommendation came after the plan had been started by Fiske and Hobson—

Secretary DANIELS. Now, Mr. Chairman, you said—

The CHAIRMAN (continuing). And then it was adopted with the changes that you suggested? You did not originally care particularly about having a Chief of Operations at all yourself, did you?

Secretary DANIELS. I told you just now that I was studying the best plan for organization.

The CHAIRMAN. Yes.

Secretary DANIELS. And that in the meantime, while I was taking that up, this proposition came up, and I opposed it. Now, I would not like for you to say that this plan that was turned down and the plan adopted were anything at all alike.

The CHAIRMAN. No, no; but the plan that was adopted was framed on this and cut down so that it would conform to your idea?

Secretary DANIELS. It is immaterial what was done. We saved the American system and destroyed this Von Tirpitz system.

The CHAIRMAN. But you have stated that the system of two aids could have taken care of it just as well.

Secretary DANIELS. What is that?

The CHAIRMAN. You have stated that under the system of having two aids you could have taken care of it as well as with even the Chief of Operations.

Secretary DANIELS. I say it could have been done.

The CHAIRMAN. And had no legislation been started at that time you would not have advocated a Chief of Operations?

Secretary DANIELS. Oh, no; I should have made a change in organization, because we had aids, and we had no law for it.

The CHAIRMAN. But you were not specifically providing for a Chief of Operations or planning to provide for one.

Secretary DANIELS. I had not drawn an act, but I was considering the best way to have an act.

The CHAIRMAN. To be known as Chief of Operations?

Secretary DANIELS. I had not gone that far.

The CHAIRMAN. You had not gone that far with it?

Secretary DANIELS. No, sir; I had not drawn the act. I wish to call attention to the law of February 19, 1915. While matters were

pending in organization I wrote the following letter to the chairman of the Senate Naval Affairs Committee:

FEBRUARY 19, 1915.

MY DEAR MR. CHAIRMAN: There is attached hereto a draft of a proposed amendment to the pending naval appropriation act, with my earnest recommendation that it be inserted in lieu of the words on the same subject contained in the bill as reported by the House Naval Affairs Committee. (See p. 4, lines 13 to 18, H. R. 20975, as reported Jan. 18, 1915.)

The suggested amendment provided for the creation of a new office in the Navy Department, that of Chief of Naval Operations. This office is to be filled by a line officer not below the grade of captain, who is to be appointed for a period of four years by the President, by and with the advice and consent of the Senate. He will be charged, under the direction of the Secretary of the Navy with operations of the fleet, and with the preparation and readiness of plans for its use in time of war.

You will first notice that the principle of civilian control of the Navy Department is not violated. It will be the duty of the officer who, by the nature of his position, will be thoroughly conversant with existing conditions in the fleet, to recommend to the Secretary such changes as may, in his opinion, be necessary to develop the maximum efficiency of the Navy.

Faithfully, yours,

JOSEPHUS DANIELS.

The CHAIRMAN, COMMITTEE ON NAVAL AFFAIRS,
United States Senate.

That is the letter I wrote, and here is the inclosure. [Reading:]

Amendment recommended by the Navy Department to the bill H. R. 20975, naval appropriation act.

There shall be a Chief of Naval Operations who shall be an officer on the active list of the Navy appointed by the President, by and with the advice and consent of the Senate from among the officers of the line of the Navy not below the grade of captain for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet, and with the preparation and readiness of plans for its use in war.

During the temporary absence of the Secretary and the Assistant Secretary of the Navy, the Chief of Naval Operations shall be, next in succession to act as Secretary of the Navy.

I think there is a profound principle involved in this matter. That is why I speak so earnestly. Several of you gentlemen were not here when I made my direct statement in which I quoted from the statement made by President Roosevelt to Congress in which he very wisely declared that as between civilian and military control of the Navy, the Navy ought to be under civilians.

The CHAIRMAN. We will adjourn until to-morrow morning at 10 o'clock.

(Thereupon, at 5.20 o'clock p. m., the subcommittee adjourned until to-morrow, Tuesday, May 25, 1920, at 10 o'clock.)

NAVAL INVESTIGATION.

TUESDAY, MAY 25, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in room 235, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Keyes, and Trammell.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. The committee will come to order.

Secretary DANIELS. Mr. Chairman, you inquired yesterday where it was stated, as I remarked, that certain officers of the Navy held secret meetings, acting with a Member of Congress, in attempting to get through the legislation giving the Chief of Naval Operations power over the Navy as well as the fleet. You will find it stated in Admiral Fiske's book, and in the testimony of Admirals Fiske and Fullam.

Admiral Fiske says as follows in his book (pp. 567 to 569):

Midshipman to rear admiral:

The entries in my diary during the remainder of December refer mainly to the congratulatory letters and messages that I continued to receive regarding my testimony, and also to my efforts to establish a general staff.

"December 27, Sunday: Called on Hobson in p. m. and explained why a general staff is absolutely essential, if one is to have a Navy of maximum effectiveness; though it is not necessary if one is to have merely a Navy.

"January 3, Sunday: Had long interview in p. m. with Hobson at his residence in regard to general staff, etc. I took many documents with me, and Hobson became thoroughly interested. We concluded that it might be better not to attempt to get through legislation for any modification of aid system, because Secretary would say present aid system is adequate and that it might be better to propose a new scheme, whereby an addition would be made to present system and additional means be provided to accomplish preparation for war. So I asked Capts. H. S. Knapp, Hood, and Oliver, and Lieut. Commanders Cronan, Madison, and Knox to be at Hobson's at 8.30 p. m. We all met there in Hobson's study, and sat till after 11 p. m., when we adjourned. We agreed on program whereby Chief of Naval Operations is to be legislated for and to have 15 assistants."

The entries under head of December 27 and January 3 give the outlines of a good deal of work that Hobson and I did on those days and in the intervening week. The plan which we drew up was drawn up in the light of my knowledge of strategical requirements and Hobson's knowledge of congressional requirements. When the six officers arrived that evening, they came secretly, because they were engaged on an exceedingly dangerous mission. I had expected more or less objection on the part of some of them to certain features of the bill as drawn, but I found that every one of them was enthusiastically in favor

of it. We eight men went over the whole subject very carefully, and when we finally came to an agreement, the original memorandum that Hobson and I had planned had been changed but little.

During the discussion that evening it happened occasionally that some one would speak of the power and authority which I would have if that bill should pass. Whenever anybody made such a remark as that I told him that, if Congress should authorize a chief of naval operations, I was absolutely certain that I would not be the chief of naval operations. I told them that I was positive that the Secretary wanted to get rid of me—

And in that, Mr. Chairman, he was entirely right. I had intended to get rid of him, because I could not stand him any longer—

but could see no opportunity or give any reason for it, because he knew that I was performing my duties to the satisfaction of the Navy, including Admiral Dewey: but that if a new office was established by Congress, the Secretary then would be perfectly free to appoint any one whom he wished. I told the company that I was like the well-known gentleman who sawed off a branch of a tree at a point between himself and the branch, except that that man did not realize what he was doing, and I did.

I will interpolate, Mr. Chairman, that it did not make any difference with me whether we had a Chief of Operations or an Aid for Operations; Admiral Fiske was going to go. I had been bored by him long enough.

"January 4. The six officers who met at Hobson's last night met in my office at 8.30 a. m. and we drew up on neat typewritten page the proposition agreed on. Hobson came to my office at 10.15 and took up the matter with Secretary. Hobson told me later that Secretary declared that if the bill went through he would 'go home.' How foolish! Now he has the chance to back it up and get back into good opinion of the country."

This is all from Fiske's diary.

Hobson came to our apartment at 2.20 and told me subcommittee—of which Padgett is chairman—passed the proposition unanimously! Hobson asked me to get him a brief with which to argue matter before full committee January 5. So Madison, Cronan, Dudley Know, and I met in my office from 9 p. m. till 11.15 p. m. and drew up brief, which Knox will leave at Hobson's house at 9 a. m. to-morrow.

"January 5. Papers give large space and headlines to action of subcommittee! Dewey is delighted, and told me I might tell Hobson, which I did at 10.30 a. m., by telephone.

"January 6. Hobson telephoned me at 1 p. m. that full House Naval Committee agreed unanimously on incorporating in naval appropriation bill the provision for a Chief of Naval Operations!"

With the exception of Admiral Dewey, Hobson, and the six other officers, nobody knew that I, or any other naval officer, had any connection with this measure.

"January 7. Evening papers last night and morning papers to-day confirm news that House Naval Committee unanimously agreed to incorporate in naval appropriation bill the provision, 'There shall be a Chief of Naval Operations' * * * New York papers give great space and comment (sympathetic) to establishment—Bureau of Operations. New York Tribune is especially favorable, and the World, the leading Democratic newspaper, gives the project its first page headed 'Fixed naval policy assured.' It must hurt Mr. Daniels very much indeed to see the World taking a stand so antagonistic to him."

When the naval appropriation bill came up before the House the provision for a Chief of Naval Operations was stricken out on a point of order on the motion of Mr. Mann.

That is, Mr. Mann, Republican leader from Illinois.

This did not surprise me because Hobson had said at the start that it was liable to this fate, being new legislation added to an appropriation bill. Hobson said that he thought he could get the Senate Naval Committee to put it back in the bill; he added, however, that this would give an opportunity for the

Secretary to modify the provision by recommending certain changes in it, though he thought that the Secretary would not oppose a provision that had been agreed to by the full House committee.

Hobson's prediction was verified in toto. The provision, as finally incorporated in the bill by the Senate Naval Committee, was made to conform to the suggestions of the Secretary. In its amended form it was passed by both Houses.

Admiral Fullam said (pp. 2069 to 2070) in speaking of the efforts of Admiral Fiske and others to "put over" that legislation:

Hobson told me that they had to meet at his house in secret, and to call officers, like Admiral Knapp, up there to meet them, so as not to let the Secretary know anything about it.

I must confess, Mr. Chairman, when I read this diary and this testimony of high-ranking officers of the Navy to the effect that they were meeting in secret and not letting the Secretary know what they were doing, when under every regulation and tradition of honor of the Navy, in such an important matter, they were under every consideration bound in honor to take it up with him. [Continuing reading:]

Admiral Fiske in his testimony (pp. 1797-1798) includes his hearings before the House Naval Affairs Committee, March 24, 1916. Referring to Representative Britten's statement, "The officers say Admiral Fiske drew it up in his own handwriting," Admiral Fiske said:

"I feel it necessary to explain something that Mr. Britten said. I do not want to seem to give assent to a remark that he made, which was to the effect that the provision for Chief of Naval Operations, as originally reported by this committee, was drawn up in my own handwriting. It was drawn up at my suggestion, and Mr. Hobson and I had several conferences while drawing it up; and, finally, in framing the phraseology in which it was presented to you, Hobson and I had the assistance of six other officers."

I call your attention to the fact that in his testimony, Admiral Fiske says:

Dewey is delighted.

Now, I wish to call attention, Mr. Chairman, to an interview with Admiral Dewey, published in the New York World of Sunday, August 20, 1916, which I will insert in full in the record, in which the interviewer says as follows:

"Tell me, Admiral Dewey," I ventured another leading question, "what is all this clamor about the Navy needing a General Staff?"

He laughed.

"I don't know," he said. "I've tried to pin them down, but not one has even been able to make clear just what it was that he wanted. Down in their hearts I suppose they want a small, select body to have entire charge of the Navy. Well, they'll never get it, and they shouldn't get it."

"You believe, then, that the Secretary of the Navy should be a civilian?"

"Absolutely. He represents the people, and the closer he is to the people the better. Same thing with the powers of Congress. I can conceive of no greater madness than to put the Navy in the power of a naval group, or the Army in the hands of soldiers alone. As a matter of course, we would look at things from our own professional point of view. The whole democratic balance would be destroyed."

Now, that is an interview with Admiral Dewey about the Navy on August 20, 1916, in which he declares, in conversation:

What I want the people of the United States to know is that it is all right with the Navy. There is no demoralization, no lack of discipline, no absence of enthusiasm. The Navy has never failed America. It will not fail.

I suppose I need not read all of this.

The CHAIRMAN. That is the complete letter is it?

Secretary DANIELS. This is the complete interview; yes. A photostat copy.

The CHAIRMAN. Will you put the whole article in the record?

Secretary DANIELS. The whole matter; yes. It is an interview. (The editorial referred to is here printed in full, as follows:)

ADMIRAL DEWEY VIGOROUSLY DEFENDS THE NAVY.

[By George Creel.]

For two years and more the United States Navy has been the subject of discussion as bitter as it is confused. The disputes between pacifists and militarists, between Democrats and Republicans, have resulted in a Babel, and out of it all have come prejudices that do not care to bother with facts.

The people of the United States are entitled to the truth, the whole truth, and nothing but the truth. What is slander and what is fact? Is the Navy, as it stands to-day, an asset or a liability? Is the Navy bill honest and adequate or a dose of "eye wash"? Has Secretary Daniels "demoralized"? Is he a faithful public servant, worthy of support, or a joke?

One man only has the authority and possesses the exact knowledge to answer dispassionately these questions. That man is Admiral George Dewey. He has been in the United States Navy since 1854, serving through two wars. Since 1903 he has been head of the General Board, passing upon naval defects, naval needs, and naval plans. No administration has power to hurt him. By law he is exempted from the usual retirement provisions, and if he does decide to retire, it will be of his own volition and at full pay. No partisan quarrel has ever had power to drag him from his height.

INDIGNANT OVER SLANDEROUS CRITICISMS.

Aside from these qualifications he is loved of the American people as few men have ever been loved. In a day when there is much talk of Americanism he stands as one who has risked his life for it and who has devoted that life to giving richer, finer meanings to the word.

I found him in Atlantic City in a great, wind-swept room that looked out over the sea. His hair was whitened, but otherwise he is but little changed by the years that have passed since the wonderful day he returned from Manila to hear the shouts of a nation. The same clear, steadfast eyes, the same tremendous simplicity, the same faith in America.

Speaking slowly, but never hesitatingly, for three long hours, he considered the United States Navy, past, present, and future, world war, world peace, national ideals, and national destiny. Only in his first answers, when an evident indignation gripped him, did he depart from the tone of one trying to pick his words in the interest of understanding.

"The attacks that have been made upon the Navy," he said, "are as false as many of them are shameful. It is not a junk heap. There is no demoralization. Both in material and personnel we are more efficient to-day than ever before. Our ships are as good as any, our officers are as good as any, and our enlisted men are the finest in the world.

"It is true that we have not enough ships or enough men. But navies are not built in a day. It was between 1906 and 1909 that Germany passed us and that we commenced to lose rank as a naval power. This is in no sense a criticism of administrations. Congress, after all, expresses public sentiment in large degree, and the reason we dropped was because the people wanted the drop. The recommendations of the General Board went unheeded because they were not backed up by public opinion. Until 1914 people were thinking in terms of world peace. It is different to-day, and it is to-day that should concern us."

He walked over to his desk, and taking up a copy of the Senate Navy bill spread it out before him. For a moment, as if to measure his words, he tapped it with a big, brown forefinger, and then he said:

"This is the best bill ever passed by either House of any Congress. It takes the five-year program of the General Board and changes it into a three-year program. If passed, it will restore us to second place and enable the United States to meet on equal terms any power in the world, save one."

ANALYSIS OF NEW NAVY BILL.

I asked him then for a consideration of the bill, or, rather, some such analysis as would permit a civilian to do a little thinking for himself. Patiently he went over each item:

"Four battleships at once and six more within three years." Now that he was firmly on his own ground his words came like bullets. "The great clash at the mouth of the Skagerrack gave a test to every theory. As a result naval authorities are now agreed that the battleship is still the principal reliance of navies. As never before, it is proved that victory or defeat rests with the dreadnaught.

"Four battle cruisers at once and two more within three years. This will remedy one of our chief weaknesses. The Skagerrack proves conclusively, however, that the battle cruiser can not give and take with dreadnaughts.

"Scout cruisers, four, and six more to come. More eyes for the fleet. Absolutely necessary."

"Like the battle cruiser," he said, "the submarine has been permitted to gain a very exaggerated value. It is, of course, a most useful auxiliary, whose importance will do doubt increase, but at present there is no evidence that it will become supreme. The bill provides for 9 fleet submarines: 3 coast submarines, 800-ton type; and 55 submarines, smaller type, provisions that are in line with the recommendation of the General Board.

"A feature of the Skagerrack engagement," he continued, "was the convincing demonstration of the usefulness of the destroyer. These tiny ships, primarily designed to serve the purpose of a screen, to be outriders for the big ships, have been regarded as incapable of attacking first-class ships in the daytime. The German destroyers descended upon the British Fleet in broad daylight, and the destroyers of both fleets played an important part in the fighting. We feel that the bill's provision for 50 destroyers is amply justified. So"—he turned in the chair and clapped his hands together—"it is a bill that gives us strength and, best of all, a bill that gives us balance."

WHY WE NEED A GREAT NAVY.

"Granting all that," I said, "but what about the need of it?" As carefully and fairly as possible I presented the feeling of many people in many Western and Middle States—a feeling that this expenditure of millions on the Navy was a departure from American traditions, a hysterical surrender to the madness that has had hold on kings. His fine head nodded appreciation of every point, but at the end he spread wide his hands in a sweeping gesture of dissent.

"I know that I am not a militarist," he said. "Those who have never seen war or who have only played at war may talk in terms of jingoism, but men who know what war is and what war does are the last in the world to approach it in any swashbuckling fashion. I hope the day will come when peace and justice rule the world, but that day is not yet here. Not all our idealism can brush away facts. If we are to dwell in peace we must be able to protect that peace." He walked to the open window and pointed to the shining stretches of the sea.

"Look at our coast line: From Maine to the Canal, from the Canal to Alaska. Russia has had to maintain two distinct fleets, one in the Baltic, one in the Black Sea. Our problem is much the same. We can not be said to have met our defensive needs until we are able to maintain a fleet in the Pacific Ocean as well as in the Atlantic. Our geography, the immensity of our coast line, join to make the Senate Navy bill a minimum requirement. No, no," he exclaimed. "We must accept conditions as we find them, although we are not to give up hope of changing the conditions."

"Given this increase," he declared, "given the ships and men that this bill provides, and the United States, as never before, will be a peace power, able at all times to protect and to advance its standards. Every cent appropriated by this bill is payment on an insurance policy."

"How about men?"

"We now have 55,000, and the bill authorized 74,500."

"Can you get them?"

"I don't think there is a doubt of it. The Navy to-day offers as fine a chance for the American youth to fit himself for life as any other department of endeavor."

IN DEFENSE OF SECRETARY DANIELS.

"Tell me, Admiral Dewey," and I braced myself for the momentous question, "has Secretary Daniels demoralized the Navy?"

"Bosh!" The exclamation was one of disgust and indignation. "Facts and figures tell their own story. The Navy was 5,000 short of the number of enlisted men allowed by law. Over 6,000 have been added, although more rigid examinations have forced the rejection of five out of every six. Only 52 per cent of honorably discharged seamen were reenlisting. For more than a year about 90 per cent have reenlisted. Desertions have been cut in half and discipline has been improved to an extent that has permitted the restoration of a prison ship and a disciplinary barracks to normal uses. No, sir; the Navy is not demoralized, and those who make the charge are guilty of falsehood and misrepresentation."

"Did Secretary Daniels ever issue an order for officers and men to mess together, only withdrawing the order when informed that it might bring whites and blacks to the same table?"

"Slanderous! No such order was ever heard of."

It had been my purpose to take up with Admiral Dewey every one of the small things alleged against Secretary Daniels—every one of the petty charges that press and magazines have used to prejudice people against the Navy head. It proved impossible. It would have been like talking gutter gossip with St. Paul.

"How about officers?" I asked.

"Officers, like navies, are not made in a day." I could see his relief at getting away from mud. "When the present administration took charge it found that the law providing for the appointment of two midshipmen at Annapolis by each Member of Congress had been permitted to lapse. This law was extended, and the present Congress, upon the recommendation of the Secretary, has provided for three additional midshipmen to each Congressman. This makes 531 additional appointments immediately available. There is also the law that opens the Naval Academy to 15 enlisted men each year, provided, of course, they measure up to the mental, moral, and physical standards."

"Is that a good idea?"

PROMOTION OPEN TO ENLISTED MEN.

"It is more than a good idea." For a second I saw Admiral Dewey as he must have looked on the bridge in Manila Bay. "It is democracy. Eighteen years ago, when this matter first came up, I took a stand that has never changed. I said then that the Navy could not afford to be the one department of American activity in which a boy could not rise from the bottom to the top. I say it now. This is the United States, not an Old World monarchy.

"The same thing goes for the ship schools," he continued, emphatically. "Education is our solid rock. Not only do the schools make better citizens but they make better sailors. We want our youngsters trained in intelligence as well as in hands, so that if officers go the ship can still be fought. No, sir," he exclaimed. "Opening the door of promotion to the enlisted man, giving him an elementary, technical, or industrial education, as may be deemed fittest, are American policies."

"What about the famous drinking order?"

"A good thing." His answer was instant. "There was some feeling about it at first, because the papers made fun of it, and there was also an attempt to make it appear that Secretary Daniels was charging officers with intemperance. I think that the feeling has disappeared completely. Every railroad, every great corporation, has long had an ironclad rule forbidding men to drink while on duty. Isn't a ship as important as a locomotive? Practically every European power has copied the order, by the way."

"And marksmanship? Is it true that our gunners can't hit the side of a barn?"

Before answering he pawed over some papers on his desk, and pulled out a report of some kind.

PROFESSIONAL-CONTROL MADNESS.

"Here are some facts," he smiled. "From 1909 on we did go down, owing to the discontinuance of elementary practice. But we have pulled up. Admiral Fletcher, reporting on the 1915 target practice, says this: 'It is believed that

the scores recorded are higher than ever before in the open sea.' The recent battles were held at ranges of 16,000, 17,000, and 18,000 yards, which are even longer than the longest ranges at which firing has occurred in the European war. About 10 out of 20 shots would have hit an enemy ship at 18,000 yards. 'You know,' he said, almost confidentially, 'I believe our boys are the best gunners in the world.'

'Tell me, Admiral Dewey,' I ventured another leading question, 'what is this clamor about the Navy needing a general staff?'

He laughed. 'I don't know,' he said. 'I have tried to pin them down, but not one has been able to make clear just what it was that he wanted. Down in their ranks, I suppose they want a small, select body to have entire charge of the navy. Well, they will never get it, and they should not get it.'

'You believe, then, that the Secretary of the Navy should be a civilian?'

Absolutely. He represents the people, and the closer he is to the people the better. Same thing with the powers of Congress. I can conceive of no greater power than to put the Navy in the power of a naval group, or the Army in the hands of soldiers alone. As a matter of course we would look at things only from our own professional point of view. The whole democratic balance would be destroyed.'

'Here!' his eye caught a clipping tucked away under some papers on the table. 'This thing was in the back of my head all the time we were talking about the alleged demoralization of the Navy. Put that in.'

What he handed me was an article by Hector Bywater, the famous English naval expert, written for a British journal after a careful study of the American Navy. I glanced it over and saw this paragraph marked:

'Need hardly be said that the political head of the United States Navy possesses infinitely more power than the civilian First Lord in Great Britain. And it is every indication that Mr. Daniels has been using his power to the detriment of the navy. His friends say he has accomplished wonders; his enemies, who are many, declare that his personal fads and prejudices have undermined the efficiency of the naval personnel and made the service a laughing stock. But this is not borne out by the evidence. Those best qualified to speak assert that in the last four years have witnessed a remarkable all-around improvement in the quality of the personnel. Thanks to the Secretary's drastic order shortly after he came into office, intemperance has disappeared from the Navy, and with the drink prohibition excited ridicule and bitter opposition at the time, the majority of naval officers now agree that it has had a most beneficial effect on efficiency and discipline.'

'You stand for that?' I asked, looking up after reading the paragraph.

'It could be dishonest if I didn't,' he answered gravely. 'As I told you, I have been in the Navy since 1854. Against the slanders that have been heaped upon the service that I love I want to say again that never in my knowledge has the material and personnel been so efficient. The last few years have been wonderful years for the United States Navy.'

'It is more than I have talked for years,' he said at last, rising to his feet and holding out his hand. 'But I want the people of the United States to know that it is all right with the Navy. There is no demoralization, no lack of discipline, no absence of enthusiasm. The Navy has never failed America. It will not fall.'

Admiral Fiske says in his book, page 549:

'In the German Navy the navy department was divided into three parts, each headed over by its appropriate chief. Of these chiefs the chief of staff was the chief of planning; the chief of the naval cabinet issued the orders to the officers, and the minister of marine provided the material in shape of ships. These three officials reported to the Kaiser direct, and received orders direct. The Kaiser was the commander in chief of the navy and the emperor of our President. In Germany there was no intermediary between the commander in chief and the forces which he commanded. The German system worked very well.'

Admiral Fiske adds:

'We had it.

AIRMAN. On what page is that?

Secretary DANIELS. Page 549—

I wish we had it.

As I said yesterday, he was obsessed by the thought that we ought to pattern everything we did by the German military organization. In the light of the events of the war, Mr. Chairman, I rather think that I was very wise in turning a deaf ear to Admiral Fiske's insistent recommendations that I try to Germanize and Prussianize the American Navy.

Admiral Fiske in his testimony and in the hearings before the House committee he quoted shows that the Prussian general staff was his ideal. You will find that on page after page. See pages 1745, 1746, 1747, 1772, 1792, 1793, 1794, 1884, 1885, etc.

I will not stop to read those, but I will make reference to them.

Admiral Fiske, on pages 1885 and 1886, says:

I suppose you have heard the story—I do not know whether it is true or not—but when France declared war against Germany in 1870 the news came to Berlin where Moltke was asleep, and they awakened him with the news, and he said, "You will find the plan in the top drawer," and then turned over and went to sleep.

"That is what we wanted," said Admiral Fiske, "something like that."

That is, Admiral Fiske says what we wanted was a Chief of Operations or a commander in chief of the fleet who, when he heard that war had broken out would say, "Look in Drawer A and find the plans," and then go to sleep.

Now, I assure you, Mr. Chairman, that when a Chief of Operations gave me that kind of advice I was so disgusted that I paid very little attention to anything he said about organization; and I wish to say this: In the whole time he bored me with his insistent operation ideas, he never suggested to me anything about increasing the strength of the Navy or the power of the Navy that was not absolutely based and conditioned upon a reorganization of the Navy Department on Prussian methods. It was his whole story. He acted as if he believed that the Navy would be a tremendously efficient and great factor if it had nothing but a Chief of Operations with a Von Tirpitz power. But if you ask me, did I read everything he brought me. I will tell you that in the early days I did; but he used to bring me in paper after paper that he had written, all beginning or all ending, the warp and woof of it, in effect "take out civilian control except by name; give me, or whoever is Chief of Operations, the power to control the Navy—not the fleet," and he worried me to the point of exhaustion, so that when he began to send me in these long screeds, repetition, repetition, making him the big thing, I saw that he was a monumental egotist. Read his book. There has never been a man in the world written a book of such shallow knowledge, of such monumental egotism.

Von Moltke may be Admiral Fiske's ideal, but he is not ours. I hope we will never have in our Navy a Chief of Naval Operations who will pull out a plan from a top drawer and then turn over and go to sleep. That may be Fiske's ideal, it may be yours, but it is not mine. We want our men in charge of plans and operations to be wide awake, ready to change their plans at a moment's notice to meet conditions. The German Navy in this war had all kinds of plans.

and they got licked soundly and their fleet had to sail up to Scapa Flow and surrender. Submarine warfare was their main dependence, yet when the European war began they did not have but 27 effective submarines. Capt. Persius and other able German naval officers declare that Von Tirpitz and his gang of this wonderful German staff not only failed in U-boat warfare but "torpedoed Germany." If there ever was a dismal failure, it was the "war lords" Germany with their general staff.

The British Navy has not been defeated in centuries. The American Navy never was defeated. And neither one ever had any Von Tirpitz in supreme control to rule over them.

Hardly a naval encounter of the World War occurred the way it planned by either side. Read the story of Jutland. Neither Jellison or Von Scheer, or any of the other commanders, ever dreamed fleets would come together in the way they did or the outcome would be what it was. The German Army had to change their plans completely after the Battle of the Marne. And so it was all through the war. If there ever was a dismal failure, it was the war lords of Germany with their general staff, which Admiral Fiske says we ought to have adopted in America. And he also said that the Navy Department of the United States was the only military organization in the world that had not been framed on the German plan. Well, I think God, if Admiral Fiske is telling the truth. I think he is.

I think he is mistaken, but I thank God that we had one organization in America that was not organized on the German plan and that made good.

Now, Mr. Chairman, to call attention to pages 1745 and 1746 of the typewritten record of your hearings, where appears Admiral Fiske's letter which he says he wrote to me in August, when he was in the summer in Newport, while the rest of us were here hard

CHAIRMAN. Was he on duty at Newport?

Secretary DANIELS. Yes; on duty at Newport. It was much easier on duty at Newport than it was here.

CHAIRMAN. I suppose he was where he was sent.

Secretary DANIELS. He was where he asked to go. He was not there, except on his own initiative, and I confess very frankly I am glad to get rid of him for a while. If he had asked me to send him to Kamchatka I would have sent him there with great pleasure.

CHAIRMAN. What was his position?

Secretary DANIELS. He was aid for Operations, or, rather, I ought to say an obstacle to Operations.

CHAIRMAN. You could not very well send your aid for Operations out of the country, could you?

Secretary DANIELS. The farther he was away from Washington the better the country.

CHAIRMAN. Mr. Secretary, I think in view of these accusations being made against Admiral Fiske, the committee will probably want to come here and make a statement about the question of the Navy.

Secretary DANIELS. I am reading what he said.

CHAIRMAN. You agree with me that it is fair to let him have his say in this matter?

Secretary DANIELS. Mr. Chairman, I agree with you that it is absolutely fair, if your committee decides that everybody wishes to have a hearing, and I will come back, but it would be very unjust and very unfair to have hearings and call men back without my coming back again, so that I shall demand or request that I be allowed to come back again if he is called. But I am not saying anything that Admiral Fiske has not said himself.

The CHAIRMAN. That will be a matter for the committee, of course.

Secretary DANIELS. It is a matter for the committee, but I shall insist on it as a matter of justice, of course. But I am saying nothing except what Admiral Fiske has said, quoting his book, which he introduced, and his own letter. Now, here is what he says in paragraph 6 of that letter:

The whole German Army had been made into a vast machine. All its parts were fabricated, finished, and in place. Steam was up in the throttle, and as soon as war was declared the throttle was opened and the whole engine began to move with perfect precision, without friction and without noise.

But it did not win.

In paragraph 7 he says:

The triumph of the German organization—

That is, in the war of 1870—

was so splendid and complete that all the military nations of the world took the lesson to heart at once, with the result that to-day every military nation in the world has its army and navy organized on German principles.

Farther on in the letter he says—now listen:

The only organization belonging to the national defense of any great country which is not organized on the German plan, or on a plan similar to it, is the United States Navy. Why the United States Navy has lagged behind all other organizations of a similar kind is not difficult to understand when one realizes that the United States is a nonmilitary country, and that while a farsighted statesman, with the aid of a Congress in political sympathy with him, was able to place our Army on a basis of military readiness, no similar combination has yet been found to do the same thing for our Navy.

Now, Mr. Chairman, our Army did a tremendously fine piece of work during the war, but I submit to you and to the world that the Navy was not behind the Army, and according to Admiral Fiske we have the only organization that was not on the German basis.

So I might read to you for half an hour what Admiral Fiske says about the Navy being based upon Prussian plans.

I have not made a statement about Admiral Fiske's ideas about making our Navy patterned on German plans except from his own book and his own testimony, which I did not present or introduce, but which he either brought up himself or which you asked me to read—extracts from his book.

In this whole testimony, Mr. Chairman, I wish to make this very clear: I have not brought up any matter before this committee touching any individual at present or formerly connected with the Navy except in rebuttal. I have made no statements about any officer or any man connected with the Navy since I have been here except in answer to criticisms or charges. I have injected no personal element into this discussion. I have only answered charges made by officers who have appeared before your committee or in answer to questions.

The CHAIRMAN. Are you ready now to go ahead and answer questions?

Secretary DANIELS. One second. You asked me yesterday a question which I am not certain that I understood. You asked me about my approval of the administrative section of the plan for war in the Atlantic, which Admiral Fiske said he presented to me in March, 1915, and which I did not sign while he was aid for Operations; and I told you that if he presented it that I probably told him, or if I did not I ought to have told him, that I would not act upon it then, because he was going out of office and I was going to organize the Office of Operations with a new Chief of Operations, and I could properly and wisely have left to the new Chief of Operations the organization of the administrative plan. But you also asked me a question as to which I wish to be clear whether I understood you or not. I understood you to say that two years before that Admiral Fiske had presented me with a similar paper from the General Board which I had not signed. Was that the question you asked me? The CHAIRMAN. I referred to Admiral Fiske's book, on page 583. Admiral Fiske's diary he says:

The same thing occurred about three or four weeks ago. A recommendation was sent of date March 3, 1915—

Secretary DANIELS. That is the one.

The CHAIRMAN (continuing reading):

It is similar to a letter of two years ago that also was not acted upon.

Secretary DANIELS. Not a letter from Admiral Dewey?

The CHAIRMAN. No; from Admiral Fiske.

Secretary DANIELS. As I said yesterday—and I sent to the General Board this morning—the General Board presented no such letter two years before. He evidently refers to his letter here about the reorganization of the Navy Department, which he sent to me on August 20, 1913, from Newport—a letter which he wrote me from Newport.

The CHAIRMAN. Does that letter appear in his book?

Secretary DANIELS. In his hearing.

CHAIRMAN. What page?

Secretary DANIELS. Pages 1734 to 1744 of the typewritten record. That evidently is the letter which he referred to as to which I took no action. It was not a matter at all to take action

It was chiefly concerned with the organization of the Navy Department, and, as I told you before, I had determined not to order the Navy Department upon Admiral Fiske's recommendation.

CHAIRMAN. So you did not take action on that letter?

Secretary DANIELS. I did not approve it. There was no necessity for action on it.

CHAIRMAN. Nor did you disapprove it. You simply took no action on it?

Secretary DANIELS. It was a letter he wrote me giving me some advice which called for no action.

CHAIRMAN. Then his statement that that also was not acted upon would be correct?

Secretary DANIELS. It did not call for any action. It was in the line with another letter that Admiral Fiske wrote. From first

to last I do not know how many he wrote, about wanting the Navy Department organized on the Prussian plan.

The CHAIRMAN. You say "Prussian plan." He did not state in his letter that he wanted to Prussianize it?

Secretary DANIELS. Yes; he did. That is exactly what he said. Let me read to you. I got very tired of the Prussian plan. He said in this very letter—

The CHAIRMAN. You need not read the whole letter. Just refer to it.

Secretary DANIELS. It is found on page 1746 of the typewritten record. Speaking of the Franco-Prussian war and how the armies of France were defeated, he says:

The reason was simply that the Germans, under the direction of Von Moltke, had organized a general staff which had made such perfect plans of mobilization and subsequent operations that, on the outbreak of the war, the German Army was ready immediately. The whole German Army had been made into a vast machine. All its parts were fabricated, finished, and in place. Steam was up in the throttle, and as soon as war was declared the throttle was opened, and the whole engine began to move with perfect precision, without friction and without noise.

And he advocated that we adopt the Prussian plan.

The CHAIRMAN. The point is he did not use the words "Prussianize the Navy."

Secretary DANIELS. He said, "on the German plan—the Von Moltke plan."

The CHAIRMAN. That is, he said we could get points from the German plan?

Secretary DANIELS. He said we ought to adopt their plan. And then he said in another place that our Navy was the only organization in the world that had not adopted it, and that we ought to adopt it, and that we would have better efficiency if we did. Now, I am frank to say that I did not think any more then of following blindly the German plan than I do now, and I became very wearied of Admiral Fiske's continual dinning into my ears that the only people on earth who knew anything were the Prussians. We did not follow them then. We did not follow them during the war, and we won the victory upon American ideals.

The CHAIRMAN. My point is simply that he did not use the word "Prussianize." He may have referred to a German plan that would be good to put into operation, but he did not speak of Prussianizing. That is not important, however.

Secretary DANIELS. His whole argument—listen—

The German organization was so splendid—

The CHAIRMAN. Are you going to show me the word "Prussianize"?

Secretary DANIELS. He said, "German," but as the time came on, "German" and "Prussianize" meant about the same thing. As to exact words, I will admit that he did not use the word "Prussianize."

The CHAIRMAN. Or "Germanize." He simply referred to the advantage under the German system?

Secretary DANIELS. He simply said we ought to adopt in the Navy the system adopted in Germany, with which I did not agree

then, with which I do not agree now, and while it was a very powerful machine, and while plans under a military machine look very well on paper, I do not want any Chief of Operations in this country who when war is declared runs his hand into a drawer and says, "Get out the plans," and then goes to sleep. That was the Fiske suggestion, that we should adopt that kind of a plan, and I did not follow it, and Congress refused to follow it.

The CHAIRMAN. Mr. Secretary, I also asked you to give me the number of officers who were in the Planning Division.

Secretary DANIELS. I am having that prepared. I will give it to you in a moment.

The CHAIRMAN. Now, Mr. Secretary, you have previously outlined the aid and bureau chief organization of the Navy Department as it was when you became responsible for its conduct.

Secretary DANIELS. Yes.

The CHAIRMAN. In addition to the General Board there were four aids. I wish you would correct me if I am not correct.

Secretary DANIELS. That is right.

The CHAIRMAN. One for Operations, one for material, one for personnel, one for inspection.

Secretary DANIELS. Yes.

The CHAIRMAN. Then there were the Bureaus of Navigation, Steam Engineering, Ordnance, Construction and Repair, Supplies and Accounts, Medicine and Surgery, Yards and Docks, the Judge Advocate General, the Marine Headquarters, and the Solicitor's Office—12 bureaus, four aids, and the General Board.

Secretary DANIELS. I think that is right.

The CHAIRMAN. In addition to these there were nine special committees or sections suggested as essential to the proposed Office of Chief of Naval Operations, according to House Report No. 1324; the historical section, policy section, strategic section, the tactical section, the logistic section, the organization section, the mobilization section, the training section and the executive section. That is correct, is it?

Secretary DANIELS. Yes; proposed in this bill. Yes; I think it is.

The CHAIRMAN. And you opposed the unanimous report of the House Committee on Naval Affairs to coordinate all these highly technical activities under a responsible officer who would be under the civilian Secretary—

Secretary DANIELS. I opposed the report of the House committee, which went out on a point of order made by Mr. Mann, because it put under the Chief of Operations the direction of the whole Navy, and eliminated the Secretary and Assistant Secretary, and put everybody under the Chief of Operations. Yes; I opposed that. I was very happy when Mr. Mann made the point of order which killed it.

The CHAIRMAN. That is, the plan to put them all under a responsible officer, who would be under the civilian Secretary?

Secretary DANIELS. I opposed the plan to make the Chief of Operations the Secretary of the Navy and the Assistant Secretary of the Navy and a superman; yes.

The CHAIRMAN. And you preferred the direct action of a civilian to administer, without coordination, this intricate organization?

Secretary DANIELS. There had never been any lack of coordination. There had never been any lack of administrative coordination.

The CHAIRMAN. You said you did not want a superman. Would not the Secretary have an aid for Operations?

Secretary DANIELS. Let me tell you how the department worked before we had an aid for Operations. We had an aid for Matériel. Under the aid for Matériel was the Bureau of Ordnance, attending to all matters in reference to munitions; the Bureau of Construction and Repair, building all ships and repairing all ships; the Bureau of Yards and Docks, building all dry docks, looking after all building operations; and the Board of Inspection of Ships, to see that they were all in proper condition. All these came under the aid for Matériel. He discussed with them their various propositions, and brought to the Secretary of the Navy directly the recommendations of the bureau chiefs, and his recommendations to the Secretary of the Navy after conference with those chiefs. I left out the Bureau of Steam Engineering. Everything connected with Matériel came under him.

Then, under the aid for Operations were all matters with reference to strategy, tactics, War College, instruction, operations of the fleet, plans of the fleet, readiness of the fleet. All operating matters came first to the Chief of Operations, and, through him, to the Secretary. All personnel matters came through the Chief of the Bureau of Navigation, and this Congress, I think, is going to change his name to the Bureau of Personnel. It ought to be changed, because "navigation" is a misnomer. All matters of personnel came through the Bureau of Navigation to the Secretary. So we lacked no coordination. We lacked no facilities, and when we got the Chief of Operations we only improved upon another system. There never was any lack of coordination or cooperation for effective work. The only thing that we did was to give the Chief of Operations an aid for matériel and an aide for Operations, which did away with the Chief of Matériel.

There is a very erroneous impression that under our present law the Chief of Operations is the head of a general staff. It is very different. He can not spend a dollar, he can not appoint a man, he can not assign an officer. He is a thinking, operating, planning, strategical, tactical officer, charged with large powers by law, and under the Secretary given, as I have given the Chief of Operations since this law was passed, a full and free hand in the assignment of ships. During the war he had the full power to assign the ships of this or that fleet for this or that department of work, and that is his function.

The CHAIRMAN. I want to say, Mr. Secretary, as far as this matter is concerned, I personally have no preconceived predilection for one plan or the other, and I think the same is true of the committee. What we want is information.

Secretary DANIELS. I can tell you that I never in my life saw any plan for any organization that was perfect.

The CHAIRMAN. Yes. We want to get information. That is why I am asking these questions.

Secretary DANIELS. And I am giving it to you from my point of view.

The CHAIRMAN. Now, the Hobson report carries this description of the duties of the proposed Chief of Naval Operations:

This officer, under the Secretary of the Navy, is to be held responsible for the readiness of the Navy for war and in charge of its general directions.

Secretary DANIELS. Yes.

The CHAIRMAN. Let me finish.

Secretary DANIELS. I will.

The CHAIRMAN. The Hobson report continues:

He is to perform only such duties as shall be assigned to him by the Secretary of the Navy and such duties shall be performed under the authority of the Secretary of the Navy, and he is given the same authority regarding orders issued by him as is now given under existing law of the chiefs of bureaus of the Navy Department.

Now, Mr. Secretary, that on the face of it would seem merely to permit the Secretary of the Navy to delegate some parts of his authority to an officer subordinate to himself, who shall—

Perform only such duties as shall be assigned to him by the Secretary of the Navy.

Please explain why you designate that as a conspiracy, a secret and surreptitious conspiracy to Prussianize the Navy and turn the civilian Secretary into a "rubber stamp."

Secretary DANIELS. I will do so. Admiral Fiske appeared before the House Naval Affairs Committee and there this matter was discussed at very great length. Here is what the chairman of the committee said to Admiral Fiske, page 1774 typewritten hearing:

The CHAIRMAN. Would you give that authority to the naval officers, over military matters, independent of the Secretary of the Navy?

Admiral FISKE. I would not recommend that extreme; no, sir.

The CHAIRMAN. There was one officer who recommended it. You do not?

Admiral FISKE. No, sir; but I should like to say, in trying to define my position, which is rather difficult—

The CHAIRMAN (Interposing). In other words, while you do not recommend it, I infer from your answer that you would like to see it, as I understand.

Admiral FISKE. I think it would be safer from the standpoint of what might happen in a war.

In other words, Mr. Chairman, if by law you make any officer in the Navy responsible for the direction of the Navy, while you may put into the law the statement that he does so under the Secretary of the Navy, that officer will say and will feel that he ought to come to Congress and say to you, "I am responsible for the direction of the Navy, and I must exercise that responsibility, and the Secretary of the Navy denies me the right to direct the Navy."

The CHAIRMAN. Do you not think he ought to have the right to come to Congress?

Secretary DANIELS. I think he ought to have the right to come before the committee, and it is always done. The Chief of Naval Operations, so far as I understand, has always come before the House Naval Affairs Committee whenever they wanted him to come, and has always expressed his views fairly; but he ought not to have the right to come except as a witness. The estimates, the recommendations, must come from the Commander in Chief of the Army and Navy.

The CHAIRMAN. That is, you think he ought not to have the right to come on his own initiative, that he ought not to come until he is summoned?

Secretary DANIELS. To come when the committee sends for him. He should not be the Secretary of the Navy.

The CHAIRMAN. He ought not to come on his own initiative?

Secretary DANIELS. He should carry on his duties without the law giving him responsibility for the direction of the Navy. You will find some of the ablest officers who think the Chief of Operations should really be the Secretary of the Navy, but they say——

The CHAIRMAN. They do not say so in that statement.

Secretary DANIELS. This is what they say. They say that we ought to have a civilian Secretary of the Navy, but that the civilian Secretary of the Navy ought to have under him the Chief of Operations, who should be responsible for the direction of the Navy. Now, of course, it is utterly impossible to have an officer responsible for the direction of the Navy and have a Secretary of the Navy anything except a rubber stamp. The two things can not be true, so that you are camouflaging the situation. I talk to these officers very freely. I say, "Gentlemen, in America you can not turn over any department of Government to a military man." And, as a matter of fact, you will find very many officers who the last thing on earth they would want to see would be an admiral to be Secretary of the Navy. In the Navy, like in the Army, like in law or medicine, men who have been in the same profession all their lives, they have their differences, they have their associations, they have their friends. I would not turn over to any naval officer on earth, who is in the Navy for life, the direction of the Navy Department.

The CHAIRMAN. I do not think any of them testified that they thought that there ought to be a naval officer as Secretary of the Navy.

Secretary DANIELS. No, Mr. Chairman; but the conclusion of it all is, as Admiral Fiske says here, and as they all say who hold his extreme view, and who wanted the Hobson bill, they want that he shall be responsible for the direction of the Navy.

Now, when this matter went out of the House bill on a point of order, I wrote to the Senate and suggested practically the law we now have, which was adopted by the Senate and adopted by the House. That gives us an organization which is so far superior to the old board of strategy of the Spanish-American War that they are not at all alike. Now, their line of argument is this: They say, "We want a civilian Secretary," but they say, "We want Congress to say that this Chief of Operations is responsible for the direction of the Navy."

Under that, where does the Secretary of the Navy come in? He only draws his salary and draws his breath, and no man of character, no man of ability, no man of responsibility would hold a job like that.

The CHAIRMAN. The House provision had the following words in it:

He shall perform only such duties as shall be assigned to him by the Secretary of the Navy.

ecretary DANIELS. Yes; but it prefaces that by saying:

shall be responsible for the direction of the Navy.

ow, both those things can not be.

he CHAIRMAN. Do you think it would have been better to have
 , "He shall be responsible to the Secretary of the Navy?"

ecretary DANIELS. I think the law as we have it is better.

he CHAIRMAN. Would the suggestion I have made have taken
 of it?

ecretary DANIELS. I think we have gone just as far as we should
 a Republic in giving authority to any naval officer.

e CHAIRMAN. Would that have obviated the difficulty?

ecretary DANIELS. Not at all. The Hobson bill proceeds upon
 heory that the responsibility for the direction of the Navy is
 e Chief of Operations. Then it says he shall do nothing that
 ecretary of the Navy does not tell him to do, and then you
 a conflict. The Chief of Operations says, "I am responsible
 e direction of the Navy." But the Secretary says to him,
 dear sir, I do not give you any orders to do this or that." But
 eief of Operations says to him, "My dear Mr. Secretary, Con-
 has said I am responsible for the direction of the Navy."

would have a debating society in the Navy Department be-
 the Secretary of the Navy and the Chief of Operations if you
 Secretary with any guts, or you would have the Secretary of
 vy a rubber stamp.

CHAIRMAN. But you say that the present organization is sat-
 y. Now, the testimony of most of the officers has been that
 sent organization was not satisfactory during the war, and
 ommittee would like to know why it was not satisfactory.

tary DANIELS. Well, as I said to you before—

CHAIRMAN. Or do you agree with the statement that it was
 sfactory?

tary DANIELS. I think it was the best organization the Navy
 d and that the absolute test of it was the result. We got
 results out of it. I think it was a very good system.

HAIRMAN. Just as it was?

ary DANIELS. As it operated in the war and as it is operating
 I think no change should be made in it that would give the
 Operations one iota more of power than he has now. If
 put into the law the provision that the Chief of Operations
 sible for the direction of the Navy, then, in the name of
 o not waste any time on having a Secretary of the Navy or
 ant Secretary of the Navy. Whenever you have two men
 's work you have got one man too many. Abolish the Sec-
 the Navy at once, and let us go to it.

can understand why there are very many arguments in
 military chieftain of the Army and Navy. If this country
 ome to it, let us have it, but do not camouflage it.

HAIRMAN. The Senate committee made a different report
 House committee. What do you do in regard to getting the
 change the House report?

y DANIELS. In the hearing yesterday I put in my letter to
 committee, in which I called attention to the fact that the
 hout much reflection, had favored the Chief of Operations.

They had not had their attention called to the fact that this gave to him the direction of the Navy.

If you will take the House hearings of the next year, when this matter was taken up very fully, you will learn that Chairman Page said he was in favor of the principle of a Chief of Operations, and the House put in it, in regard to the principle.

Now, I wrote to the Senate at once. It went out of the House bill on a point of order. I was not very clear as to exactly how it did go out, but I refer to my memory. Mr. Merriman made the point of order that it was new legislation, and it went out.

I told you yesterday that I had been considering with some of the bureau chiefs and other officers of the Navy how we could improve the organization of the Navy, and when this provision was dead—utterly dead—then I proposed in a letter to the Senate, which I inserted in the record yesterday, that they should change the organization of the Navy by creating the Office of Operations, and I proposed the correction in the naval bill, which the Senate incorporated practically as I requested, and I think it passed in those words, either in those words or with the principle that the Chief of Operations should be charged with the plans and operations of the fleet, not with the direction of the Navy, a very wide difference, as wide as the sea.

The CHAIRMAN. And you asked them to take out the word “responsible”?

Secretary DANIELS. I requested them to pass the act as it now stands, or virtually as it now stands, and the Senate did so, and the House approved it and it became the law.

The CHAIRMAN. Then, when that word was stricken out, the responsibility rested on your shoulders?

Secretary DANIELS. Mr. Chairman, the responsibility, of course, for the protection of the Navy, in the last analysis, rests upon the Secretary of the Navy. The responsibility for the conduct of the Navy rests upon the Secretary of the Navy, limited only by such duties as Congress has imposed upon other officers; and, as I said to you the other day, and I want this to go into the record, the Secretary of the Navy is responsible in the last analysis for the direction of the Navy in peace and in war; and if, when this hearing began, you had sent for me first I should have assumed the full, entire responsibility gladly, and I should have demanded equally the full reward for the great things the Navy did. You have had these officers before you telling what they did and the great things they did. I gave responsibility to the Chief of Operations, and the Office of Operations in the war had a free hand in the disposition of ships, and other bureaus had other power, but the Secretary of the Navy, of course, in the final analysis has the responsibility, has the blame, and has the credit as the directing head of the organization.

The CHAIRMAN. Now, while you had this full responsibility and authority you looked to your Chief of Naval Operations to carry out your instructions for the readiness of the Navy for war and its general conduct, did you not?

Secretary DANIELS. I looked to the Chief of Operations for the performance of the duties prescribed by law, under me.

The CHAIRMAN. That would include the readiness of the Navy for war and its general conduct, would it?

Secretary DANIELS. Here is the act:

Who shall, under direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparedness and readiness of the plans for its use in war.

Then you will find that I issued certain regulations, which I do not know whether they were put in the record or not. If they have not been put in, I will put them in. Perhaps they have been. Here are certain regulations, found on page 5383. This will give you a start for the Chief of Operations.

After having quoted the law I will read only one section, section 2, telling what his powers shall be:

(2) This shall include the direction of the Naval War College, the Office of Naval Intelligence, the Office of Target Practice and Engineering Competitions, the operations of the Radio Service and of other systems of communication, the operations of the Aeronautic Service, of Mines and Mining, of the Naval Defense District, Naval Militia, and of the Coast Guard when operating with the Navy; the direction of all strategic and tactical matters, organization, maneuvers, target practice, drills, and exercises, and of the training of the fleet for war; and the preparation, revision, and enforcement of all tactics, drill books, signal codes, and cipher codes. The orders issued by the Chief of Naval Operations in the performance of the duties enumerated in this paragraph shall be considered as emanating from the Secretary of the Navy and shall have full force and effect as such.

These regulations, as found on pages 5583, 5584, and 5585, contain the duties prescribed for the Office of Operations, its responsibilities, and such duties as are prescribed by him, when he issues an order, they shall have the same effect as if emanating from the Secretary of the Navy.

So that if the commander of a fleet receives a telegram signed by the Chief of Operations, ordering him to do a certain thing with his fleet, those orders would have the same effect as if they had been signed by the Secretary of the Navy, under those regulations.

The CHAIRMAN. I take it when you gave your instructions for the readiness of the Navy and its general conduct, you gave them through the Chief of Operations, did you not?

Secretary DANIELS. Certainly; but these regulations did not require me. I made the regulations, because I did not wish to send for the Chief of Operations every minute something was to be done. So I made the regulations so he had the authority to do these things.

The CHAIRMAN. Yes; but when you did make any—

Secretary DANIELS. When I made policies.

The CHAIRMAN. Or when you gave any instructions, you gave them through the Chief of Operations?

Secretary DANIELS. As to these things, yes—as to these things.

The CHAIRMAN. What I am asking you about is the instructions for the readiness of the Navy for war and for its general conduct during the war.

Secretary DANIELS. Not the general conduct of the Navy, the conduct of the fleet, the operations of the fleet, and the ships and the things under his purview.

The CHAIRMAN. No; I say your instructions about the general conduct of the Navy would be given through the Chief of Operations?

Secretary DANIELS. No; if I am giving out a contract to build destroyers. for instance, that contract is made after consultation—

The CHAIRMAN. Yes; but that is hardly an instruction for the general conduct of the Navy.

Secretary DANIELS. You said preparation for the Navy, and you have got to have ships.

The CHAIRMAN. I said readiness for war.

Secretary DANIELS. I gave directions to Operations under these regulations, but I did not turn over to Operations all instructions to the Chief of Construction and Repair, or Ordnance, or other duties of the Navy.

The CHAIRMAN. Not for contracts and things of that sort, but any plans or policies of the readiness of the Navy for war you would communicate through the Chief of Operations?

Secretary DANIELS. For strategy, for tactics, for operation of the ships, yes; and that is done under the regulations. It does not require any new action of mine. When the Secretary of the Navy lays down a policy of operations, that policy is carried out by the Chief of Operations, but as to the method of carrying it out, that is left to the Office of Operations.

The CHAIRMAN. Now, Mr. Secretary, did not the changes that were made in the Hobson plan so limit the authority of the Chief of Operations as to deprive him of the authority to coordinate and control the bureaus in the work of preparing for and conducting and prosecuting the war?

Secretary DANIELS. He never could control the Navy Department. He can not now, and that plan I made——

The CHAIRMAN. No; I am asking about the Hobson plan.

Secretary DANIELS. The Hobson plan would have given him direction of the Navy. The act of Congress does not give him direction of the Navy.

The CHAIRMAN. Therefore he would be deprived of the authority that was given him under the Hobson plan to coordinate and control bureaus?

Secretary DANIELS. The authority given him under the Hobson bill would have made him Secretary of the Navy.

The CHAIRMAN. It would have given him this authority to coordinate bureaus?

Secretary DANIELS. There are two contentions. You read just now that he could do nothing at all except by direction of the Secretary. The purpose of the Hobson bill was to give the Chief of Operations the direction of the Navy, so that he could tell every bureau chief to do this and do that, so that he could control the whole Navy. Now, of course, the law passed by Congress did not give him that power.

The CHAIRMAN. Did not the change made by you make the bureaus more or less independent of the Chief of Operations?

Secretary DANIELS. In the line of the act of Congress, giving the bureaus certain responsibilities, they retained their independence——maintained it.

The CHAIRMAN. As a practical matter, then, they would maintain their independence under present conditions more than under the Hobson plan?

Secretary DANIELS. Unless you changed the law of Congress, but they are all dependent upon the Secretary of the Navy as the Chief of Operations is now.

The CHAIRMAN. Is now?

Secretary DANIELS. Yes; and as they must be if you have an American form of government in the Navy.

The CHAIRMAN. Are you familiar with Mahan's principle that the department should be so organized that it could pass from peace to war without shock to or change in its machinery?

Secretary DANIELS. I have the plan here.

The CHAIRMAN. You are familiar with that principle, are you not?

Secretary DANIELS. Let me get the report. There are so many reports. I read them years ago, but I have not read them recently.

The CHAIRMAN. That is a very simple question.

Secretary DANIELS. If the Mahan plan turns over to the Chief of Operations or any other individual the direction of the Navy—

The CHAIRMAN. I am not asking you about the Mahan plan. I am simply asking you about one of its cardinal principles.

Secretary DANIELS. What did you ask me?

The CHAIRMAN. I asked you if you were familiar with Mahan's principle that the Navy Department should be so organized that it could pass from peace to war without shock to or change in its machinery?

Secretary DANIELS. It was so organized and should be. When the war came, Mr. Chairman, we never changed in the Navy Department a single thing. We passed from peace to war with one telegram. We did not need to change our organization in the least. We did not add a new department or a new office except under the regularly organized channels. There never was a piece of machinery that passed from peace to war so perfectly as the Navy, and that principle is inherent in the law as it stands to-day.

The CHAIRMAN. You think that the Mahan principle is a sound one, do you?

Secretary DANIELS. That principle you speak of, that it should pass from peace to war easily, is in the law we have now, and it did that easily.

The CHAIRMAN. So you think the law as you have it now does not violate that principle?

Secretary DANIELS. The law does not violate that principle, because experience has shown that we did pass from peace to war easily and quickly and successfully.

The CHAIRMAN. Admiral Benson, in his testimony, advocated giving the Chief of Operations "authority" and "responsibility," and he stated that he should have the right to go direct to Congress and to sit at Cabinet meetings. Admirals McKean, Rodman, Wilson, Fletcher, and nearly all other witnesses think the Chief of Operations should have "authority" and "responsibility." Will you state briefly what you think about that?

Secretary DANIELS. I have stated my opinion very clearly.

The CHAIRMAN. I would like to see what you think about the Chief of Operations going to Cabinet meetings.

Secretary DANIELS. I think he has no place at a Cabinet meeting unless you are going to make him Secretary of the Navy. Now, Mr. Chairman, let me show you—

The CHAIRMAN. I am inclined to agree with that, Mr. Secretary.

Secretary DANIELS. Let me show you, Mr. Chairman, as I told a very distinguished naval officer who advocates the policy of making the Chief of Operations virtually Secretary of the Navy—I told him

that the only way he would ever get it through would be to quit having a Republic here and Germanize our Government.

Mr. Chairman, I will put in the hearings at this point the report of the Chief of Operations of June 2, 1917, and I will also put in the hearings an address delivered by Admiral Benson at the Naval Academy in 1916.

(The report and address referred to are as follows:)

[Confidential.]

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, June 2, 1917.

Memorandum for the Secretary of the Navy.

In compliance with your memorandum of May 31, 1917, I submit the following summary of the work in the Office of Naval Operations since the declaration of war:

OPERATIONS.

On April 1 all naval vessels were mobilized and immediate steps taken to fit them for war service as fast as their crews for full commissioning could be supplied. All naval districts were mobilized and their skeleton organizations are being filled as rapidly as personnel becomes available.

The Coast Guard, transferred to the Navy, have been operated by the Navy Department, and all vessels belonging to that service have been repaired and refitted.

German refugee ships have been seized in cooperation with the Treasury Department, and the interned German vessels have been taken over for naval service and are being rapidly put in shape for active service. Refugee German vessels in Samoa, Honolulu, and Porto Rico are being towed to the United States for overhaul and fitting out for service.

There has been organized and put in operation a patrol force with the Atlantic Fleet, under the command of Capt. H. B. Wilson, which patrols the offshore waters of Atlantic and Gulf coasts from Eastport, Me., to the Rio Grande. Suitable vessels of this force are held in readiness to operate against enemy raiders that may be reported in the north Atlantic.

There has been established in European waters a destroyer force under the command of Vice Admiral W. S. Sims, and 28 destroyers have been dispatched abroad for this service, together with two destroyer tenders. Two supply ships, under destroyer escort, have been dispatched to France, carrying cargoes of much-needed material for that country.

By agreement with the allied powers definite areas of patrol in the north Atlantic and off the east coast of Brazil have been taken over by the United States Navy, and a scout force has been dispatched to cover the area assigned our forces in the south Atlantic, under the command of Admiral W. B. Caperton.

There has been established in the Pacific a patrol of the Pacific coast, including Mexico and Central America as far south as Panama Canal, under Rear Admiral W. F. Fullam.

There has been organized a force of small craft designated for patrol service in waters adjacent to the coast of France, and Capt. W. B. Fletcher has been placed in command of the first contingent of this force, which will complete its fitting out in a few days and start for its field of operations.

There has been organized a system of convoy service under general charge of Rear Admiral Albert Gleaves, in readiness for the convoy of any troops which may be dispatched to France.

In addition to the foregoing, armed guards have been or are in process of being placed on all vessels, about 150 in number, plying between the United States and Europe, and the Atlantic Fleet has been given the duty of training the crews for the armed guards of merchantmen and transports.

The organization of the several forces, the regulations for convoy service, the instructions for the operation of merchant vessels supplied with armed guards, and war instructions for United States merchant vessels have all been prepared and issued by the planning section of the Office of Operations.

A board, of which Capt. Pratt, of the Office of Operations, is chairman, has been appointed to consider plans and devices connected with submarine war-

fare, and is in almost daily session and conference with the research committee of the Council of National Defense.

Definite and effective steps have been taken toward the organization of machinery to take over the control of the routing of all merchant vessels leaving United States ports. At present this function is being exercised by representatives of the British admiralty stationed in our ports.

Preparation and distribution of various publications and ciphers for use in communication between merchant vessels and men of war of the United States and of the allied powers is well advanced. The communication office has been greatly enlarged to meet the demands of the increased work brought about by the state of war, the taking over all radio service, and the establishment of the censorship over cables. It is contemplated to establish a service of officer-messengers for the distribution of secret orders, confidential publications, and ciphers.

NAVAL DISTRICTS.

The work of the naval districts has been extremely active, especially in districts 1 to 5, inclusive, because of their greater strategic importance and because of the great trans-Atlantic traffic passing to and from the ports within their limits. The sixth, seventh, and eighth districts are filling up their organization, but are not developed to the same extent. Those districts on the Pacific coast and in Hawaii have not yet been fully organized. Defensive sea areas have been declared and have been enforced in Boston, Newport, New York, Philadelphia, Cape Henry, Hampton Roads, and Charleston as fast as the number of patrol boats become available efficiently to enforce control over the areas. Other areas will be enforced as the organizations grow.

Six hundred and twelve small vessels have been inspected and found suitable for naval use. One hundred and fifty-two have been taken into the naval service and assigned to scout-patrol service and as mine sweepers. One hundred and thirty-eight have been ordered taken over, but have not yet been delivered. Those accepted are now actively at work patrolling and mine sweeping or are being fitted out as rapidly as possible for the work. All the small craft acquired by the naval district commandants have been manned by enrollment of Naval Reserves within the districts, and the personnel by active employment are rapidly being trained and accustomed to the line of work which the defense of the district demands. Mine sweeping is being carried out at Boston, New York, Delaware Bay, and in the Chesapeake.

The obligations under the emergency appropriation of \$115,000,000 incurred in equipping the naval districts is indicated in the attached table.

OPERATIONS ON SHORE.

The naval government of the Virgin Islands of the United States has been established under the governorship of Rear Admiral J. H. Oliver, and steps have been taken to supply at least a partial land defense of the islands by mounting eight 5-inch guns, distributed between the islands of St. Thomas and St. Croix. Steps have been taken having in view the establishment of quarantine services, medical research services, and agricultural services in the islands.

Affairs in the island of Haiti, involving the peace of the Republics of Santo Domingo and Haiti, have progressed satisfactorily, and the authority of the established Governments of these Republics has been maintained. In the two Republics there are now forces of marines aggregating 2,000. In Santo Domingo a *Guardo Nacional*, under the military governor and under the direction of United States marines, has been formed and is undergoing a course of training, while in the island of Haiti the *Gendarmarie* is reported to be in a very efficient condition. A small coast-guard service has been established in Haiti, and vessels repaired in ports of the United States assigned to this service have recently been delivered under United States naval escort.

In addition there have been employed in the disturbed districts of Cuba, caused by the recent revolution in that country, a varying force of marines for the protection of American interests there. There are at present about 450 marines maintained in the island. An information service throughout the island has been organized.

We have maintained constantly in Mexican ports and along the coast a patrol by our vessels, giving especial interest to the port of Tampico, in the vicinity of which are vast oil fields, constituting a large and important source of the world's supply of oil. From two to four vessels have been maintained continuously at this port.

MATERIAL.

The vast work of equipping and repairing the fleet has brought upon our various navy yards and shore establishments demands which have taxed their utmost capacity. Not only has it been necessary to complete the overhaul and repairs of our regular naval vessels, but repairs to the seized German merchant vessels and the fitting out and equipping of ships taken over for service have multiplied the work required to be done.

Repair work on battleships left unfinished before the movement of the fleet south has been taken up and practically all naval vessels have been made materially ready and put in service. The fitting out of vessels for distant service is nearly completed, 15 German ships badly damaged by their crews before seizure by this Government are being fitted out for naval purposes, and 8 German ships are being repaired for the Shipping Board.

AERONAUTICS.

The naval aeronautic program was considerably accelerated upon the severance of diplomatic relations, February 3, 1917, and the present program of naval aeronautic expansion may be considered to have begun on that date.

Enrollments in the Naval Reserve Flying Corps were begun under definite standards supplied to commandants of the various naval districts, and arrangements for accelerating the training of personnel at Pensacola and for establishing various other schools of training were made. There are five such schools now in operation.

Contracts were authorized for such aircraft as could be turned out for the Navy by July 1, including in this number 16 coastal dirigibles, and contracts are being made for additional aircraft as fast as they can be accepted by the manufacturers. Two hundred and eight aircraft have been ordered, but not yet delivered. There are under construction at Pensacola 12 temporary hangars, a dirigible shed, and a large hydrogen plant.

In accordance with the recommendation of the Joint Army and Navy Board on Aeronautical Cognizance, sites for coastal air stations were examined and selected, and complete plans for the development of such stations were drawn up. Money for the acquisition of these stations is not available, but is included in an appropriation now pending. One site, however, has been obtained through permission of the use of land from the city of New York, and the construction of an air station there is now under way.

An allotment from the emergency fund of \$3,000,000 was made to Aeronautics. Of this sum \$1,025,000 has been obligated and the expenditure of a further sum for the purchase of aircraft equipment, costing approximately \$1,244,000, has been authorized. The balance of approximately \$731,000 remains available.

W. S. BENSON.

Expenditures for patrol vessels, mine sweepers, etc., in naval district.

Vessels taken over:	
Patrols	\$1,821,868
Sweepers	3,064,260
Vessels ordered taken over	1,555,001
Vessels taken over by special board	1,475,500
Total	7,916,629

SPEECH OF REAR ADMIRAL BENSON, CHIEF OF NAVAL OPERATIONS, AT THE ALUMNI BANQUET AT THE NAVAL ACADEMY.

Mr. Toastmaster, fellow graduates, and guests, in calling upon me to answer to the toast, "The Navy," the objects of the graduates' association is, I take it, to satisfy, perhaps, the expectation of the service that I give an account of my stewardship as Chief of Naval Operations.

I may preface my remarks by saying that as time has gone on and the work of the office has developed, more distinctly outlining some of the vast problems involved, I have become more and more fully convinced that those who conceived the idea of creating by law a Chief of Naval Operations have in the

establishment of this office "bullded better than they knew." In speaking on this subject I do so without any intention of making odious comparisons and without any desire to attempt to enlarge upon the importance of the work or to magnify what has been already accomplished; and yet, in order to be quite sincere and candid, I must say that upon taking up this work a little over one year ago I started practically from the ground.

There were then certain elements of routine being carried out which might in a way be called the fragments of organization, but certainly nothing more. There were no data from which the chief of the office could obtain information at short notice. Only a few hours after assuming office it was necessary that a vessel of a certain class be sent from Hampton Roads to New York and it took hours to find out just what vessels were available in that vicinity, and particularly what ones were suitable for the duty to be performed. There were no definite data at hand relating to material or personnel. In order to find out about material it was necessary to send to some other office and get information piecemeal. Information as to personnel, and as to the relation between personnel and material, could only be obtained by consulting the several bureaus' files. In fact, no information except what was given in certain regular publications was available to show the relative strength of the various navies of the world. So it was necessary literally to begin at the bottom. It is true there were some efforts at organization, which had been carried forward nearly to completion. A board for the organization of the radio service had made its report and recommended an organization for adoption, but this report had not been approved and the older unformed system in the radio service was still in vogue. Messages for radio transmission were sent out by telephones to Arlington if received during ordinary office hours, and were given attention by the Arlington operators at their convenience. Messages received at night from Arlington or elsewhere had to await the opening of the office the next morning before being decoded and delivered.

Such facts as these serve to indicate the conditions formerly existing, and are recounted simply that the service may know what has been done since the establishment of this office and what is being done now, and I want especially to emphasize them in order that the service may have a true estimate of the situation and not be led astray or unduly influenced by what seems to have been a persistent effort during the past year or so on the part of certain persons and in certain elements of the press to try to create the impression, not only in the minds of the public but even in the minds of naval officers themselves, that nothing has been done in the department to improve conditions. And let me state here that the conditions which I have found to exist could not in any degree be laid at the door of the Secretary. He has at all times shown the most earnest interest and the most cordial sympathy in all the various features recommended for the development of this office, and he has given particular attention to every measure tending to increase its efficiency and the efficiency of the service in general.

The report of the board on the organization of communications, which I have already mentioned, has since been approved and is now in operation, and I do not hesitate to express the firm belief that it is the most thorough and efficient organization of its kind to be found either in the service or out of it. The office space occupied by the Chief of Naval Operations and his staff has been expanded from its formerly overcrowded condition to include nine rooms. These rooms have been cleaned, renovated, and equipped, and they are now kept in a condition that leaves little more to be desired.

One of these rooms has been fitted up especially to meet the needs of the communication service. A sound-proof compartment has been constructed, in which the radio operators are on constant watch day and night, and a space adjoining this compartment has been fitted for the telegraph and telephone operators. A commissioned officer, day and night, keeps watch to code and decode and to receive and send messages of every character without delay.

The subject of extending communications throughout the world has been given careful attention and, under the direction of Capt. Bullard, the Superintendent of the Naval Radio Service, phenomenal progress has been made toward the establishment of a system by which communication within our own country may be developed and improved, and, in cooperation with the systems in pan-American countries, expanded throughout the Western Continent. The subject of radiotelephony has, through the cooperation of Capt. Bullard and his men with the telephone companies, reached a development very little short of marvelous. At the instance of the superintendent of radio, the various companies

interested in this question agreed to mobilize their utilities and hold a demonstration which would show to what extent their systems of communications could be used. Some two weeks ago, when this demonstration took place, I sat in my office and, within the short space of time of less than two hours, transacted business by land, wire, and radio telephone with the commandant at the Puget Sound Navy Yard; the commanding officer at Yerba Buena, San Francisco; the commandant at the Mare Island Yard; the naval station at New Orleans; the aeronautic station at Pensacola; the commandant of the Charleston Navy Yard; the commanding officer of the *New Hampshire*, then at sea far off the capes of Virginia; the commandant of the Philadelphia yard; the president of the War College at Newport; and the commandant of the Boston yard. Communication was most satisfactory, and conversation between myself and the officers with whom I talked was taken down by a stenographer in my office, so that a complete record of all business transacted was available at once.

Soon after the appointment of the Chief of Naval Operations the duties of the aid for material were transferred, by the order of the Secretary of the Navy, to the cognizance of the Chief of Naval Operations and were placed immediately in the hands of one of his assistants. This change has served to provide positive means for the Chief of Naval Operations constantly to keep in touch with the material condition of the fleet and with the preparedness of individual vessels for active service. Work of the material bureaus is quickly coordinated under the immediate knowledge and assistance of the Office of Operations.

A plan of organization of the fleet on a large scale has been worked out and is now in operation. This plan is so arranged as to provide an organization for the entire naval force of the United States or for any portion of it in any part of the world. The various elements of the fleet have been given definite organization and flag officers have been detailed to the command of each, so that it may be justly said that the fleet is for the first time completely and thoroughly organized.

One of the first steps taken for the improvement of the organization of the fleet was with a view to the betterment of the submarine service, and to this end an officer of high rank has been detailed to command the submarine flotilla.

The subject of aviation also has been given especial attention, and every effort has been directed toward concentrating the development of aircraft toward a definite service. Aircraft have been placed in the same category as other craft, and the various bureaus have been assigned specific duties bearing upon the work construction and development and have assumed the responsibility for the work coming within the cognizance of each.

A thoroughly digested and well-developed plan of mobilization for the entire fleet in the event of war has been submitted to the department and approved. Each bureau and officer in the department has been assigned its particular duties in connection with the plan and reports quarterly to the department, giving in detail the progress of each toward preparedness to accomplish its task in mobilization.

The General Board has deliberated on the list of available merchant vessels useful for naval purposes in case of war and has determined the characteristics required for the special assignment of each. Guided by these requirements, the board of inspection and survey is now engaged in making a careful inspection of these merchant vessels, reporting for each the necessary alterations and equipment to fulfill the duty to which they have been assigned in the naval auxiliary service. Each merchant vessel inspected is assigned to a certain yard, where, in the event of need, it would be altered and equipped for naval service and where it would be supplied and repaired. The necessary equipment and supplies for such vessels are being sent as rapidly as possible to the yard at which these ships would be outfitted, so that in the case of emergency or war this work will be accomplished in the least possible time. Records are being kept at the department in such condition that complete data are immediately available, showing just what vessels could be used, what alterations would be necessary, and, in preparation for the event, all details, even to the drawing up of contracts, are being perfected in advance.

In past years the organization of naval districts has been merely a nominal one. The plan for the organization of naval districts has within the year been taken in hand and has been worked out in every detail. Each naval district will be organized according to a common share, and the general plan, together with a sample organization for one district, will be furnished to each naval district for filling in all data as to number and class of vessels, the organization and duty of personnel, etc.

The question of mine localities within our ports and along our shores has been studied, and the number of mines for each district and for our outlying defenses has been determined. Officers have been assigned to the various duties in the district for war service, and the distribution of vessels for the district defenses has been made, each vessel being assigned to its well-defined function in the defense.

Plans have been completed for the mobilization of the Naval Militia and detailed instructions have been prepared providing that each step in the mobilization shall proceed without interruption and with the utmost expedition. In addition, special attention has been directed to peace-time training of the Naval Militia, and arrangements have been made for sending the Naval Militia to sea this summer on board nine of the older battleships not attached to the active fleet. Arrangements have also been made for a cruise with citizen volunteers for training, on the general principle of the Plattsburg encampments conducted by the Army, and during four weeks, in the latter part of August and the first half of September, these volunteers will cruise at sea and will exercise during the last week with motor boats in conjunction with the battleships, destroyers, and submarines, working out such problems as would arise in time of war.

The organization of the ships in reserve has been given special attention. Not only have the complements been increased but special attention has been paid to the ratings of the men on board, so that the important stations will at all times have a sufficient number of well-trained men properly to break in the additional personnel that would be required to fill the complements. The ships are kept in material readiness, so that it will be necessary only to fill the complements in order that they may be ready to join the active fleet. A system of periodical inspection of every ship belonging to the Navy has been established and its good results are already apparent.

Regulations have been drawn up by a joint board for the proper control of the Coast Guard, which automatically comes under the Navy in time of war.

In response to the request of the department, the General Board has been indefatigable in making out the plans and selecting the locations for advanced bases, and in determining the location of submarine bases and working out the detailed plans for their development.

The annual period of overhaul for vessels has been discontinued. The old system under which for three months—and often for a longer period—in every 15 vessels of the fleet lay at a navy yard unready in material respects and demoralized in personnel, has been done away. These demoralizing influences, due to stagnation at navy yards, were well known to every officer, and it will be appreciated that they must have had a very bad effect upon the Navy. It was only natural, under the old system of lengthy overhauls, that spare parts would be used up and important work postponed that could have and should have been done at once in order to keep the ships in first-class condition. Such prolonged periods of inactivity at a repair yard during which the unavoidable disorder incident to the pressure of large numbers of workmen on board, and sometimes with the added discomfort of climate, could not help but have a very serious detrimental influence upon the ships' personnel, besides immensely increasing the expense of maintaining the fleet.

At the present time practically every vessel of the fleet is ready to perform its designed duty, except possibly the *Georgia*, which is to have new boilers installed, and the *Connecticut*, which is having extended boiler work done, one or two of the earlier submarines now being utilized for experimental purposes, and some of the later destroyers.

The equipment of my office has been greatly improved and added to. Data on all essential subjects have been collected and kept near at hand and are constantly being added to. Because of this improvement I was able, when called before the House Naval Committee during the present session, to give full and exact information of our own and the other principal navies of the world and was able to show not only in figures but graphically to the eye the number and type of ships of each of the principal navies of the world. Photographic silhouettes of the ships of the several navies were made and pinned upon sheets in groups according to type, so that a clear idea of the relative strength of the various fleets could be obtained at a glance. These sheets will eventually be placed upon the walls of one of the offices.

An annual program of operations of the fleet has been worked out and adopted and has so far been followed without difficulty. There is no reason to believe that it can not be successfully followed as a standard yearly pro-

gram. In my office there are kept data and records from which, at a moment's notice, one can determine the whereabouts of every vessel of the service and, within a very few minutes, the position of any merchant vessel can be located.

On the walls of the general office charts of places of special interest throughout the world are kept on chart rolls in the most convenient manner for easy reference. In another office there is a roll on which are maps showing the interior subdivisions of various countries and giving almost every kind of desirable information connected with the naval service.

Cooperation between the various bureaus and offices of the department with the office of the Chief of Naval Operations has been most cordial and complete, and the practical result has been all that could be desired. One day in each week the Secretary holds in his office a council composed of the chiefs of bureaus, heads of the various offices, the Assistant Secretary of the Navy, and the Chief of Naval Operations. At these meetings various questions of importance affecting the whole service are considered, the progress of work on ships discussed, new enterprises gone into, and a decision arrived at under the most favorable circumstances for wise action. Through these councils all are kept informed of important work, and a hearty cooperation followed by satisfactory execution of the Secretary's decisions, is the result. In addition to this weekly council, the Secretary of the Navy, through his own efforts, has organized a naval advisory council known as the Naval Consulting Board, which, with his approval and sympathy, is collecting vast stores of information regarding the industrial resources of the country and is perfecting a plan for the utilization of these industries for the support and assistance of the Army and Navy for the defense of the country in time of need.

A thoughtful consideration of the work that has been accomplished will show that all is being done now that could reasonably be expected from a so-called general staff. In my opinion, the organization that exists in the department and that is now in successful operation, is accomplishing in a purely American and businesslike manner all that could possibly be expected from the creation of a general staff, and is, I believe, doing this in a much more satisfactory way. It is folly to talk of or to advocate clothing a Chief of Staff or a Chief of Naval Operations with authority independent of the head of the Navy. Such independent authority would lead on to a confusion and would do great harm.

The fact that the bureaus as now constructed represent the different sections of the General Staff, that they have their special appropriations and are responsible for the proper expenditure of moneys under their control, and of the proper development and operation of the various parts of the Naval Establishment under their cognizance gives, in my opinion, to the organization of the Navy Department a distinctive strength and an added efficiency not possible under a so-called General Staff organization. The present organization should be made stable and permanent, and if legislation is necessary to make this absolutely sure, then there can be no doubt that such legislation should be enacted, but in considering any legislation care should be taken that too great restriction is not imposed upon the freedom of action of the head of the Navy.

I desire to add that all the results I have related have been accomplished with the Secretary's assistance. No new legislation has been necessary, and all that has been required of me has been to present the need and desirability of changes and improvements in order to receive the Secretary's sympathetic attention. He does not blindly yield to suggestions, but gives them the most earnest and thoughtful consideration. As the Secretary has often reiterated, his only requirement is that the proposed change shall add to the efficiency of the Navy in order that both the Navy's personnel and material may be capable of rendering and may be made to render 100 per cent efficiency. This policy of 100 per cent efficient service has been the basic creed of the Office of Operations, and when we shall have fulfilled that policy every unit of the fleet will at all times be ready to perform its functions, whatever the occasion that may require its service.

Secretary DANIELS. As I say, it would make no difference to me who advocated making the Chief of Operations Secretary of the Navy, I should not advocate it. I think it is making a military direction of the Navy in all its function which is un-American, and in saying that I know that some of the ablest officers of the Navy, men of very high ability, take that position, that that should be done,

but that does not affect me or change my views in the least, and I have no idea that it will affect the judgment of Congress or of the American people.

The CHAIRMAN. And you do not think the Chief of Operations should attend Cabinet meetings?

Secretary DANIELS. Not unless he is made Secretary of the Navy.

The CHAIRMAN. How about the statements of the others about "authority" and "responsibility"?

Secretary DANIELS. I have stated that the authority and responsibility as contained in the law now are all the authority and responsibility that should be given to any naval officer unless you wish to make a naval officer Secretary of the Navy.

There is another report from Admiral Benson which I wish to put in the hearing at this point.

The CHAIRMAN. It will be inserted at this point.

(The report is as follows:)

APPENDIX B.

STATEMENT BY THE CHIEF OF NAVAL OPERATIONS.

NAVY DEPARTMENT,

Washington, October 12, 1916.

1. The Office of Naval Operations, organized in May, 1915, under the Chief of Naval Operations, has continued during the past year the consistent development of its work. In harmony with the department's already confirmed disposition to afford the chief of this office all necessary support for the exercise of his appropriate functions, Congress, by the act approved August 29, 1916, has strengthened the dignity of the Chief of Naval Operations by conferring upon him the rank of admiral and has given permanency to the office by providing that he shall have not less than 15 assistants of or above the rank of lieutenant commander in the Navy or major in the Marine Corps. As soon as these officers become available for assignment they will be ordered to duty as provided for by law.

2. The experience in the administration of the Office of Operations during the past year has demonstrated that in it lies an effective means of coordinating the complex work of the Navy in harmony with maturely considered plans. The Chief of Naval Operations is, by law, charged, under the direction of the Secretary of the Navy, with the preparation and readiness of plans for the use of the fleet in war. A war plan constitutes a scheme of action and upon its soundness and completeness will depend the measure of success of our fleet when called upon to meet the test of war.

3. When properly understood, an approved plan becomes the guide for the effort of all executive branches of the department, to the accomplishment of which as a whole each branch within its own sphere of action must give its loyal adherence. The plans which have been formulated by the General Board and approved by the department have been received by the several bureaus and offices of the department in this loyal spirit, and there has resulted a closer and more efficient cooperation than ever before. Service of the fleet by all shore activities of the Navy, in order that the fleet may serve the Nation, has been accepted by all as a suitable mission.

4. In the work of preparation for war emergencies and incident thereto in the collection of data relating to sources of supply, two or more bureaus have often covered the same field of inquiry, thus causing unnecessary multiplication of departmental work, and sometimes, unfortunately, causing a very natural irritation to private industrial managers subjected to repeated requests for information already furnished by them to the same department of the Government. To correct this very unbusinesslike practice, a permanent logistics committee of bureau representatives is now charged with the duty of coordinating the work of the several bureaus in collecting logistic data. This committee has also the broader duty of determining and maintaining, under the approval of the bureaus, a suitable war reserve of material and of devising methods for reserve expansion when it is imminent. There is a vital necessity for a war reserve for engineering

and construction material sufficient to equip our fleet upon mobilization without delay.

5. The inspection of merchant vessels, with a view to their adaptation as naval auxiliaries in war, has continued. This work had formerly been carried on by a naval inspection board independent of the Army, which involved the risk of complication and confusion in the event of war through the fact that a similar inspection was being conducted independently by an Army board with a view to employing such vessels in the Army service. To obviate this, there has been organized, through an agreement with the War Department, a board of inspection of merchant vessels consisting of both Army and Navy officers. No merchant vessels will be inspected hereafter for war service except by this joint board. Merchant vessels already inspected by either the War or the Navy Department, as well as vessels yet to be inspected, will be assigned definitely by the joint board either to the War Department or to the Navy Department. Each department will, when war is imminent, be able by this scheme to act with celerity and in perfect agreement. Like arrangements affecting the allotment of the country's ammunition resources to the two departments are in process of adjustment. Other matters connected with the making of plans in which the Army and Navy must cooperate need close association of the two departments for satisfactory settlement. Steps are being taken to make a closer association with the War Department in such matters more easily possible.

6. A carefully thought-out plan for the development of naval shore bases and naval stations has been prepared by the General Board and in its main features has been approved by the department. To insure a consistent plan of development of our navy yards and stations in accordance with such a plan, a departmental board, on which all bureaus and offices concerned have representation, has been organized. The duty of this board is to advise a logical and scientific scheme of development and to determine the best method of applying the requirements of such scheme to each navy yard. By such systematic procedure each yard will be satisfactorily developed toward its maximum capacity for most efficient service, in conformity with the general approved plan. So, it is hoped, will immature or hasty recommendations for improvements be avoided and a permanent argument and justification for appropriations recommended will always be at hand based upon sound reasons.

7. In May, 1916, an officer of the rank of captain was given charge of naval districts in the Office of Operations. In accordance with the previously approved plan, the revision of the regulations governing naval districts was begun. A complete study of one district was worked out and was furnished to the commandants of districts as a type organization, with directions to organize each district along similar lines. This work is now being completed in the most satisfactory manner, and in addition the Offices of Naval Communications Service and of Naval Intelligence have prepared rules for obtaining and transmitting information within the naval districts.

8. The adoption of oil as the fuel of our naval vessels, the greatly increased use of fuel oil in commercial pursuits, the rapid depletion of our oil fields, and the difficulty of securing reserve fields to meet the future needs of the Navy, have created a very serious situation. The advantages of oil for naval use are so great that only a compelling necessity should ever force the Navy to consider its abandonment and a return to the use of coal. Such necessity can be avoided only if provision is made in advance to secure the necessary oil reserve. Having in mind these manifest conditions, the department appointed a board of naval officers to give this whole subject earnest consideration, and this board is now making a thorough study of the fuel-oil situation. It is hoped that the board's work of investigation may result in a definite recommendation to the department for a practical solution of this grave problem.

AERONAUTICS.

9. The development of naval aeronautics has continued to receive the department's serious attention, and though progress has not been rapid, the difficulties have been met without discouragement, and it is hoped that a type of naval aeroplane adapted for use over the sea and its use from shipboard are now problems near solution.

10. It must not be forgotten that all the wonderful advance in the science of aeronautics has been almost wholly along the lines of service over land, and that the service over sea is a new field, involving many unsolved problems widely different from those which have been solved in the land service. The

naval aeroplane has its home on a ship, from which it must learn to take its flight and to which it must return to be reclaimed undamaged. The naval aeroplane has no smooth meadow from which to rise and upon which it may alight. It started from the heaving deck of the scout and may have to rest on its return upon the surface of a stormy sea. Difficulties in the design of motors, of propellers, and of landing floats have been encountered and are steadily being overcome, the solution of these problems being greatly aided by the testing laboratory established at the Washington Navy Yard.

11. An aeroplane constructed after the department's own design is now nearly completed and is expected to solve many of our difficulties and establish the standard type for future construction.

12. One of our armored cruisers, the *North Carolina*, has been fitted with a practical aeroplane launching device and, supplied with a number of naval aeroplanes, has joined the fleet to cooperate in fleet work and to develop the tactics of aircraft on the sea. The *West Virginia* and *Washington*, sister ships of the *North Carolina*, have similar equipment installed, and other armored cruisers and scouts will, when opportunity offers to do the work, be fitted in like manner.

REPAIRS TO SHIPS.

13. In the effort to maintain our fleet in a state of constant readiness for efficient service, the department's policy abolishing regular overhaul periods at navy yards and requiring that all work within the capabilities of the ship's force and the fleet repair ships be done by these agencies away from navy yards has been adhered to and will be continued. The benefits of such a policy, when thoroughly understood and reduced to practice, will be fully appreciated, and will result in an ever-increasing reliance within the fleet upon the fleet's own resources for maintaining its cruising efficiency.

14. That our important ships, under the operation of this policy, still continue to spend prolonged periods at the yards is due to abnormal circumstances existing at this time, when extraordinary work of alterations and repairs are made necessary by radical changes in the fire-control systems of all, the serious shaft troubles of some, and the renewal of boilers in others. These large items of repairs and alterations, of course, could only be taken care of at navy yards.

VESSELS IN COMMISSION IN RESERVE.

15. Vessels which have been placed in commission in reserve, though usually those of older construction, have still a definite military value, which exists so long as they are kept in readiness for active service. If allowed to deteriorate in their material condition or if stripped too bare of their personnel, these ships at once lose most of their military worth, and when so conditioned are virtually stricken from the Navy list. Under the department's present policy all ships in reserve are to be maintained in material readiness for active service at short notice, with a sufficiently large part of their trained crew on board to keep alive knowledge of the ship and to sustain the spirit of efficiency within the ship as a haven to the "green" men that upon commissioning for active service must be placed on board.

16. All reserve ships are organized into the reserve force under the reserve force commander. They are given periodic military inspections and are required to perform an annual program of exercises involving some form of target practice. The reserve force during the past year has been called upon to perform various services, and has in all cases answered the call with gratifying performance. On both the east coast and the west coast the reserve ships were given the duty of exercising the Naval Militia on its annual summer cruise of two weeks, and later they embarked nearly 3,000 civilian volunteers for a cruise of four weeks, giving these enthusiastic Americans an opportunity to see something of Navy life and of naval duties on shipboard.

GUNNERY EXERCISES AND ENGINEERING PERFORMANCES.

17. A better systematized and more searching analysis of the performances of ships during the training period preliminary to the gunnery exercises and during gun practice itself by boards of officers appointed in the fleet has resulted in the elimination of many faulty methods, in the standardization of good methods, and in a general increase in the knowledge of principles underlying successful gunnery practice.

18. The fleet has carried out the various forms of gunnery exercises prescribed, and the advance in battle efficiency has been maintained. The satisfactory progress noted in my report of last year is being maintained, and though not sacrificing the time necessary for other exercises, more time is being given to fleet gunnery training than in any previous year. Firing at extreme ranges has been carried out successfully, and greater experience with approved fire-control instruments and installations warrant the hope of still better results in the coming year.

19. Improvement in gunnery has not been confined to the battleship force alone, and it is worthy of note that the submarines show an equally satisfactory advance in torpedo work, keeping pace with the improvement noted in both the battleship and destroyer forces.

NAVAL COMMUNICATIONS SERVICE.

20. The Naval Radio Service, under its new name of Naval Communications Service, has continued its past efficient performance in handling the Government's radio service, and in addition has taken over the work of handling all telegraph, telephone, and cable communications connected with the naval service outside the fleet. In addition to this work of serving the Government as well as commercial needs it has continued the censorship of radio stations in accordance with the President's neutrality proclamation of August 5, 1914.

21. An interesting demonstration of the progress attained in this interesting field was had on May 6, 7, and 8, 1916, when, in conjunction with the American Telephone & Telegraph Co., the communications service was mobilized for test. The Navy Department was connected by telephone and telegraph with all navy yards and radio stations in the United States. Radiotelephone apparatus was installed on board the battleship *New Hampshire*, and that ship, lying off the capes of the Chesapeake, was able to communicate by radiotelephony with the department in Washington and with the Mare Island Navy Yard, in California. The department itself had no difficulty whatever in communicating with the *New Hampshire* or any of the naval stations in the United States, using a desk telephone as on any ordinary occasion.

22. A new radio station has been completed and put in service at Point Isabel, Tex. This station will be of great service to the merchant marine in that section as well as to the Government in facilitating communication with vessels in Mexican waters.

23. As an illustration of the growth of the radio service in the past few years, it may be noted that during the period from December 13, 1912, to December 31, 1913, there were handled a total of 12,854 commercial messages, while during the period from July 1, 1915, to June 30, 1916, the number had increased to 97,084. Of course the number of official messages had correspondingly increased, the number for the latter period above mentioned being 628,997.

OPERATIONS OF THE FLEET.

24. Our fleets on the several stations have been actively employed during the past year. In Asiatic waters the conditions in China have long been disturbed, and the unrest of the Chinese people has frequently been made manifest by local revolts and uprisings of more or less serious magnitude. Our ships on the Chinese coast, and especially in the rivers of that country, have rendered important service in keeping in touch with conditions, in sustaining our diplomatic representatives, and in general looking out for American interests.

25. The chief duty of the Pacific Fleet has been, as heretofore, service in Mexican waters. Unsettled conditions still continue in that country, and the recurrent threat of danger to the lives of our numerous citizens resident there has kept most of the active ships on the Pacific station, and at times many of the reserve ships distributed along the Mexican coast, ready for any service that the occasion might demand. Beginning in the latter part of June, 1916, and continuing through July, when the safety of Americans in Mexico seemed to be seriously threatened, our ships assisted thousands of our citizens out of that country and provided them transportation to the United States. On the east coast of Mexico the ships of our cruiser force in the Atlantic have performed like service.

26. The Atlantic Fleet has followed an approved annual program of exercises. In the main this program requires a stay in Cuban waters from January

to April, during which target practice and tactical exercises are carried out. Then the fleet returns north for docking, repairs, and continued training, including elementary target practice and participation in the department's annual maneuver.

27. During the year, since October 1, 1915, the battleships *Pennsylvania*, *Nevada*, and *Oklahoma* have been completed and added to our active fleet, and the *Arizona*, which is to be commissioned on the 17th of this month, will soon join them. In addition, there have been completed and assigned to active service 10 destroyers and 7 submarines, together with the destroyer tender *Melville* and the submarine tender *Bushnell*.

28. The department's annual strategic maneuver took place in August last off the northern Atlantic coast. In this maneuver 83 vessels were engaged, of which 28 were battleships and 13 were submarines. The operations of the maneuver lasted for four days and developed most interesting and instructive situations for everyone concerned. It is with much gratification that the department noted the thoroughness and completeness with which the plans of the two commanders were treated and the very admirable manner in which the maneuver was carried out.

OPERATIONS IN HAITI AND SANTO DOMINGO.

29. The occupation of Haiti by the expeditionary force of United States marines which was initiated in July, 1915, still continues. The Haitian gendarmerie, under officers of the United States Marine Corps, has been organized in accordance with the treaty recently concluded between this Government and that of the Haitian Republic, and as soon as certain administrative details provided for in a supplementary agreement between the two Governments have been satisfactorily arranged, it is contemplated that the necessity for continued occupation of that country will cease. The present Government of Haiti gives every evidence of stability, and that country is now enjoying a prosperity greater than it has for many years past.

30. The situation in Santo Domingo reached a crisis in May, 1916. The President of that country, Jimenez, abdicated his office, and the Santo Domingan cabinet withdrew from Santo Domingo City, which was then held by an armed force of revolutionists under the revolutionary leader, Arias. In cooperation with our minister in Santo Domingo, naval forces were landed and occupied the city for the preservation of order and the protection of lives and property. The revolutionists having later established themselves in the town of Santiago, in the interior, an expeditionary force of marines was dispatched to occupy that town, to disarm all insurgents, and to reestablish order. This work was most efficiently completed, and at this writing there are in existence no known revolutionists in arms against the constituted authority. All disorder in Santo Domingo has been suppressed, and it is hoped that permanent peace, under stable government, will soon be established. There are now 900 marines in Haiti and 1,800 in Santo Domingo.

THE "HECTOR" AND THE "MEMPHIS."

31. On July 15 the U. S. S. *Hector* was wrecked and stranded off Cape Romaine, S. C. The *Hector* at the time of her wreck was proceeding on her usual service as collier from Charleston to the Caribbean and was caught in a severe gale, during which, after being disabled and having become unmanageable, she finally stranded as stated. Salvage operations are now in progress, though greatly hampered by weather conditions which prevail at this season. No lives were lost in the wreck of this ship.

32. On August 29 the U. S. S. *Memphis*, flagship of the commander of the cruiser force lying at anchor off the city of Santo Domingo, was driven ashore by heavy seas. This menace came upon the ship suddenly and without any previous warning. All material on board the *Memphis* of value is being salvaged, and an investigation is being held as to the feasibility of salvaging the ship. It is a matter of regret that 40 lives were lost in this wreck, 33 from the swamping of the ship's boats caught in the effort to return to the ship and 7 killed and 5 injured by the bursting of a steam pipe in the engine room.

W. S. BENSON.

The CHAIRMAN. Which do you consider the more important function of the civilian Secretary of the Navy, the coordination of the

administration of the Navy with the state of the Nation's foreign affairs, or the internal administration of the Navy?

Secretary DANIELS. That is like asking me whether I think my arm or my leg is the more important. They can not be separated.

The CHAIRMAN. You think the two go together?

Secretary DANIELS. Absolutely. A Secretary of the Navy who does not concern himself deeply with everything that makes the Navy ready for war is not doing his duty, and that is his function. and he must do that, therefore, through his officers who he selects for special ability, both for administration and for everything else.

The CHAIRMAN. So would you say that the principal thing was the internal administration of the Navy, and that the other would take care of itself?

Secretary DANIELS. No; I said I can not get along without my hands and my legs, and I would rather have both. You can not use one without the other. If you were going to divide the question, Mr. Chairman, and say which was the more important, you would have two Secretaries. You would have one Secretary to do one thing, and one to do another; but you have one Secretary, like you have one captain of a ship. You might have two captains of a ship, one to take charge of the guns and the other to take charge of the personnel. but you do not. Therefore the Secretary of the Navy must be in touch with everything that makes the Navy efficient.

The CHAIRMAN. There are a large number of professional sections of work under the Chief of Naval Operations, and constituting the internal administration of the Navy. I want to ask you about the qualifications that the Chief of Naval Operations should have. In war he has control over all the naval fighting forces, has he not?

Secretary DANIELS. He directs the naval fighting force.

The CHAIRMAN. So he should have had experience afloat in the command of a fleet, should he not?

Secretary DANIELS. The Chief of Naval Operations ought to be a naval officer of ability, large experience and knowledge. If you will read my report of 1914, I went to the War College that year, and I found there were more teachers up there than there were students. and in an address I made at that time I took the ground that we must let all the younger naval officers have an opportunity for more instruction, and the day will come, when we have done that, that all naval officers with ambition will go to the Naval War College. But. of course, the man to be selected is the man best fitted for the job. the man who has had experience in the Navy, a man whose success in every place to which he has been called has demonstrated his ability.

The CHAIRMAN. But ordinarily, would you not say that he should have had experience in the command of a fleet?

Secretary DANIELS. He should have been in the fleet and he should know about it.

The CHAIRMAN. Practically every officer of high rank has been in the fleet.

Secretary DANIELS. He should be one of the ablest officers of the Navy. He should be an officer tried and able. I should not, however. lay down a civil-service examination for the Chief of Operations. because the personal element, the matter of executive ability, the matter of what he has done in every other place in the service, are of the highest importance. There are some men who are theoretical, like

Admiral Fiske. There are some men who are practical, like Admiral Benson. And for Chief of Operations I would take a practical man before I would take a theoretical man.

The CHAIRMAN. But for a man who is to have control over all naval fighting forces, would you not say that one of the experiences that he should have had would be that of the command of the fleet?

Secretary DANIELS. Not necessarily, if he had other qualifications that gave him the ability and the capacity and the experience.

The CHAIRMAN. You do not regard that as an important matter?

Secretary DANIELS. Not as absolutely essential. All-round ability, knowledge, capacity, and tried experience—

The CHAIRMAN. Now, as a great variety and volume of administrative matters pass through the hands of the Chief of Naval Operations, do they not, he should be an experienced administrator, should he not?

Secretary DANIELS. A great variety of matters touching administration pass through his hands; but, as a matter of fact, the Chief of Operations is a thinker, a planner, more than an administrator; but, of course, the more he knows about administration matters the better, and in the case of Admiral Benson, before he became Chief of Operations, after he left command of the *Utah*, he was commandant of the navy yard at Philadelphia, which yard was the first one fitted out in America, except the New York yard, for the building of ships; and in the administration of that very important yard his success was most remarkable, and was so regarded in the whole Navy.

The CHAIRMAN. As a rule are officers assigned to the command of navy yards with the idea of fitting them for higher command later on?

Secretary DANIELS. As a rule the men who are in charge of navy yards are men who, after they have been afloat, are assigned to shore duty. They have sea duty and shore duty. When a man comes to shore duty you send him to the command of a navy yard or the Naval Academy, or you put him in charge of a bureau of the department. His shore duty in command of a navy yard like Philadelphia gives him large administrative duties as well as military duties.

The CHAIRMAN. I asked you if they are assigned to the navy yards with a view of fitting them for higher commands, as a rule, later on?

Secretary DANIELS. They are assigned to the navy yards as a part of a greater experience, in making them fitted for any duty in the Navy.

The CHAIRMAN. With the general idea of using them in other and more important positions later on?

Secretary DANIELS. Why, certainly; for when they leave a navy yard, if a man becomes an admiral, he either becomes Chief of Operations or goes to the fleet, or some other high duty. I think I see what you are driving at. If you will read the testimony you will find—

The CHAIRMAN. I have heard all of the testimony here, and have reread it all.

Secretary DANIELS. If you will read the record at the time of the naval officers and the commendations when Admiral Benson was appointed you will find that his appointment was a very popular

one in the Navy, because they knew that in every situation he had filled it with ability.

The CHAIRMAN. The Office of Operations determines the campaign policy in war, does it not, very largely?

Secretary DANIELS. The General Board makes the plans, and the Chief of Operations carries them out.

The CHAIRMAN. Not the operational plans?

Secretary DANIELS. He directs the operation of the ships.

The CHAIRMAN. So he should erudite in the history of and the experience of naval warfare, should he not?

Secretary DANIELS. "Erudite"—that is a pretty big word.

The CHAIRMAN. "Well versed," if you like that better.

Secretary DANIELS. He should be a capable, experienced, efficient naval officer, who in every position that he has occupied, should have filled it with ability and credit, and his experience should have been such that it demonstrates his fitness for the place.

The CHAIRMAN. I know, but I am asking you now if he should not be well versed in the history and experience of naval warfare?

Secretary DANIELS. The more history a man knows, if he knows it aright, the better; but after reading some of the history I read to you this morning, of Admiral Fiske, who claims to be the greatest strategist in America, I should think the less history he knew of the kind he promulgates here, the better.

The CHAIRMAN. Then, would you say that being well versed in history and the experience of naval warfare would not be a necessary qualification?

Secretary DANIELS. On the contrary, the more a man knows of history and the more a man knows in practical matters the better.

The CHAIRMAN. So he should be well versed in history and naval experience?

Secretary DANIELS. He should first of all be an able naval officer with large experience.

The CHAIRMAN. But that is purely a general answer. I am asking you about a specific thing.

Secretary DANIELS. I am giving you a general answer, because otherwise—let me tell you—we have got admirals in the Navy who write reams and reams and reams of history, who have been to the War College twice, and they write and write and write, and nobody in the Navy would think they had the practicability to command as Chief of Operations. They have a narrow vision. Take Admiral Fiske as an example. Admiral Fiske has read and read and read. He has written and written and written, and yet when he made my life a burden for months, begging me to make him commander in chief of the Atlantic Fleet, I would never have dreamed of making him commander of the Atlantic Fleet or Chief of Operations. Though he knew much history, he was possessed with the German idea of naval operations. The greatest thing necessary about a Chief of Operations is that he shall be a man of practical judgment, who knows the Navy, who has held responsible places in it, and performed his duties successfully.

The CHAIRMAN. I am trying to find out what qualifications the Chief of Operations should have, and I have asked certain specific things, and I want to know whether that is one of the qualifications he should have.

Secretary DANIELS. Listen. The first thing is, he should be a man of practical judgment. He should be a man who is a graduate of the Naval Academy. He should be a man who when in command of ships has always done his duty well. He should be a man of judgment. He should be a man of fairness. He should be a man of conscientious justice. They are the qualities. Then if you add to that, the more history he knows, the more tactics he has studied and studied wisely, and the more he has studied to make an American Navy, not a Germanized navy, the better Chief of Operations he is.

The CHAIRMAN. Then I infer from your answer that you do not look on that as one of the requisites, that a man before being made Chief of Operations should be well versed in history and the experience of naval warfare?

Secretary DANIELS. If that were the chief qualification, I would not take a naval officer, I would take a professor of history.

The CHAIRMAN. Then you think it is merely a minor qualification and not necessary?

Secretary DANIELS. As between being a practical and experienced naval officer and a historian, certainly I would take the former.

The CHAIRMAN. I presume, Mr. Secretary, that almost all officers of high rank have had practical experience as naval officers, but not all of them are qualified to be Chief of Operations?

Secretary DANIELS. And all of them have studied history, and all of them have studied tactics, and all of them have studied strategy.

The CHAIRMAN. They may have studied them, but they are not always well versed in those matters, are they?

Secretary DANIELS. The question as to who is well versed is a question of opinion.

The CHAIRMAN. I know I have studied a good many things and I have forgotten, and I think you have done the same.

Secretary DANIELS. Very many; very many.

The CHAIRMAN. We are all human.

Secretary DANIELS. We are all human, and so I know of no naval officer who is an admiral who has not in his experience somewhere had diplomatic duties calling for a knowledge of constitutional law, who has not had a study of history, who has not had a study of things that come to a man of experience and education, particularly naval experience.

The CHAIRMAN. But unless he has kept up with those matters, his having studied them is of no particular avail to him, is it?

Secretary DANIELS. I do not know of any admiral who has not kept up with them.

The CHAIRMAN. I take it there are some who have kept up more than others.

Secretary DANIELS. Undoubtedly.

The CHAIRMAN. And there are some who are recognized in the Navy as being particularly conversant with those matters?

Secretary DANIELS. Undoubtedly some men are better historians than they are sailors. Some men are better diplomats than they are captains of a ship.

The CHAIRMAN. And the ideal arrangement would be to have some one who was well up in both, would it not?

Secretary DANIELS. The ideal arrangement is to have the ablest and fittest man that you can find.

The CHAIRMAN. Who would be well up as a practical sailor and also well up in knowledge of history and naval experience?

Secretary DANIELS. The more he knows the better fitted he is. At the bottom of it all is that he shall never be a theoretical man who flies off on theories, but a practical, just man, who knows his ship as an officer of the Navy.

The CHAIRMAN. Should he not be so well versed in the policy of all naval powers, as these may affect our interests and policies, that he really becomes a naval statesman? You have referred several times in your testimony to naval statesmen.

Secretary DANIELS. Yes, indeed, I have. Such men as Admiral Fletcher, Admiral Benson, and Admiral Badger I would say are naval statesmen, and there are others.

The CHAIRMAN. Admiral Benson, Admiral Fletcher, and who?

Secretary DANIELS. Admiral Benson, Admiral Badger, Admiral Fletcher, and there are a number of others.

The CHAIRMAN. You said those three were naval statesmen?

Secretary DANIELS. Yes; and there are others. I might say, when you are speaking about scholarship and knowledge of history, the greatest man this Navy has produced as a scholar, as a writer, as a tactician in writing, is Mahan. He was a wonder. His book on Seapower, there is nothing like it, and yet nobody in the Navy would have told you that Mahan was as good a seaman as other men who never wrote a book. You must take all a man's qualifications.

The CHAIRMAN. Would you say he would not have made a good Chief of Operations?

Secretary DANIELS. I would not say that, but I would say there were men who could not write books who would have made better. I would have much preferred Mahan for president of the War College, much preferred him as a writer on sea power, than I would have assigned him to duty of that character. He was the greatest man in the Navy in knowledge, in lore, in that big word you used, "erudition." He filled the bill there, but I do not think that in his day he was regarded as so great a man in all around qualities, commanding the fleet, personnel, and that, Mr. Chairman, is very natural. You take a man who makes his life a study of history, a study of books, who becomes proficient in it and a master in it, there is only one man in a million who can do more than one thing well; and so when he became a master in those things, there are other men who have not studied so much history who were more capable than Mahan in the matter of navigation and directions.

The CHAIRMAN. Ought not the Chief of Operations to be an expert naval strategist?

Secretary DANIELS. He should be a naval strategist.

The CHAIRMAN. Expert?

Secretary DANIELS. He should be.

The CHAIRMAN. Should he not be an expert naval tactician?

Secretary DANIELS. He should be.

The CHAIRMAN. Briefly, what is the purpose of the War College?

Secretary DANIELS. The War College is called a college. That is the common name for it, but, of course, it is not a college like the colleges in civil life.

The purpose of the War College is that officers who wish to go there may there make a study of tactics, of strategy, of international

law, of things that give a man larger knowledge of history, of naval warfare, of logistics, tactics, strategy. The biggest thing about the War College—if you have time to go there, Mr. Chairman, some time, I think this committee would enjoy a visit to it. They have what they call war plans, little ships on a table, “painted ships upon a painted ocean”; and they make war games. They fight. For instance, they have a war with Germany, and some of the students will constitute the American Navy and some the German Navy, and they will fight with those ships, and their maneuvers are very interesting. I spent time there once to my great edification, and in the little time I was there I almost became an erudite man myself. The plans they have and the study are tremendously interesting, and it is wonderful really how interesting they get in the battles. That is the purpose of the War College—to learn to fight.

The CHAIRMAN. On page 187 of this volume entitled “Naval Administration and Warfare,” Mahan says:

It may be said that the true aim (of the Naval War College) is to promote not the creation of naval material but the knowledge how to use that material to the best advantage in the conduct of war.

You would agree with that, would you not?

Secretary DANIELS. Of course.

The CHAIRMAN. Then, am I right in saying that while personal study and broad experience in the command of fleets may in a measure take the place of a full course at the Naval War College, still officers who have taken that course of instruction in how to use the Navy are better equipped to act as Chief of Naval Operations than those who have not?

Secretary DANIELS. To show you my feeling about that, I gave an order in 1914 that the staff of the War College and the number of people who go to the War College should be just as important as the men who went on ships, and that the younger men should have an opportunity, and look forward to the day when War College education will be as much a part of a naval officer's education as going to Annapolis; and, as Admiral Sims said in his letter to me, “Of course, I agree with you, Mr. Secretary, that the time will come, but we can not put it into operation as to the lower officers until they have had a chance to go to the War College.” And, therefore, when I come to name a man for a great place, I do not make it a condition precedent that he should have gone to the War College, but that he should be an able planning officer.

The CHAIRMAN. The Hobson naval report specified that no one under the rank of rear admiral should be appointed to the office of Chief of Naval Operations and put in charge of the general direction of the Navy; but the law you recommended permits the appointment of a captain.

Secretary DANIELS. Yes.

The CHAIRMAN. Why was that change made?

Secretary DANIELS. No law ought to limit the commander in chief of the Navy to one rank. I have sometimes placed a commander in a very high place because he seemed to have particularly fine qualities. A captain of the highest grade—for example, take the case of Admiral Benson. He was appointed the Chief of Operations in April, 1915, when he was a captain. He became an admiral in September.

The CHAIRMAN. Of the same year?

Secretary DANIELS. Of the same year.

The CHAIRMAN. He became an admiral ex officio?

Secretary DANIELS. No; in the regular line.

The CHAIRMAN. But he became admiral ex officio when he became Chief of Operations.

Secretary DANIELS. He became a rear admiral under the law. He was a full admiral when he was made Chief of Operations, but under the law he became a rear admiral in September, so that he was a captain only four or five months after he was Chief of Operations, and I knew then that he would be an admiral in four or five months.

The CHAIRMAN. You mean he was a captain in actual rank for four or five months of his service as Chief of Operations?

Secretary DANIELS. He was the highest ranking captain, and I knew that in September he would become a rear admiral.

The CHAIRMAN. At that time did they not have a board of selection?

Secretary DANIELS. No; no board of selection.

The CHAIRMAN. That was done afterwards?

Secretary DANIELS. Yes.

The CHAIRMAN. So that at that time every officer——

Secretary DANIELS. Every officer of ability who passed the health test, who had served long enough, became an admiral.

The CHAIRMAN. But, of course, the health test was not taken at that time, and he was an officer of ability. Of course, the board had not acted at that time.

Secretary DANIELS. No.

The CHAIRMAN. You mean you supposed they would so act from your knowledge of Admiral Benson.

Secretary DANIELS. I knew he was regarded in the Navy as one of the ablest captains in the Navy.

The CHAIRMAN. I am not questioning that. I simply wanted to know your process.

Secretary DANIELS. But I would not have hesitated to appoint a younger captain if I had thought he was ablest and best for the place.

The CHAIRMAN. At the time you appointed your first Chief of Naval Operations the following rear admirals were on the active list, and were line officers not restricted to any naval duties: Admirals Howard, Knight, Fiske, Helm, Winslow, Usher, Fletcher, Capperton, Bousche, Mayo, Dunn, Tappin, Pond, McLean, Coffman, Fullam, Winterhalter, Fechteler, Gleaves, and Grant. Among those were there none, in your opinion, competent and available to inaugurate the all-important office of Chief of Naval Operations?

Secretary DANIELS. Certainly, and, as a matter of fact, I first offered the place to Admiral Fletcher before I offered it to Admiral Benson. Certainly they were, and I at first offered the place to Admiral Fletcher. I talked with him about taking it and organizing it. He was then commander in chief of the fleet, and he said if it would suit me, he preferred to remain commander in chief of the fleet.

The CHAIRMAN. Would you say one of the essentials for the qualifications of the Chief of Operations that his mind should run along with that of the Secretary?

Secretary DANIELS. I should say that he should be a man of sound judgment and convictions, and he should always give the Secretary of the Navy his honest and frank opinion, whether it agreed with his or not, and that is the kind of man I appoint to every position of importance. When a man comes into a bureau chiefship, or to be Chief of Operations, I always send for him before I appoint him and I say, "Now, you will be a member of the council. We will discuss everything that comes up; but I would not wish you to be Chief of Operations or chief of a bureau in the Navy Department unless upon every question you are just as free as I am to express your opinion, and I want your honest, frank opinion, whether you agree with me or not." That is always the policy.

The CHAIRMAN. I take it that when you appointed Admiral Benson as Chief of Operations you appointed the man who in your opinion was the best qualified in the Navy for the position.

Secretary DANIELS. I appointed him because I thought, of the men who were available, he was the man best qualified for the position.

The CHAIRMAN. This list of officers whom I have given you were, of course, all available, and you thought he was better qualified than any of them?

Secretary DANIELS. Most of those officers were on some special duty, which they were filling, and I decided after much reflection that his appointment was the best that could be made.

The CHAIRMAN. Ordinarily you would take a rear admiral rather than a captain, other things being equal, would you not?

Secretary DANIELS. I have not followed that policy. I have appointed the best man. I would not have made that a condition. Sometimes you have two or three men equally capable, but a certain man is on a particular duty which he is performing very well, and you would not take him off that duty. For example, Admiral Fletcher felt that he could render better service to the Navy by staying as commander in chief of the Atlantic Fleet. I discussed it with him as to whether he should come to the department and organize as Chief of Operations or be commander in chief of the fleet. He felt he could render better service there, and I therefore acceded to his desire to remain as commander in chief of the fleet.

The CHAIRMAN. I have asked you about some qualifications of the Chief of Operations. Would you say that Admiral Benson, when he was appointed, was a preeminent naval statesman?

Secretary DANIELS. I would say Admiral Benson was an able naval statesman?

The CHAIRMAN. And that he was a preeminent administrator of the Navy as a whole?

Secretary DANIELS. I would say his record showed he had been an able, successful officer, who had discharged every duty intrusted to him with great ability.

The CHAIRMAN. And preeminently adapted to administer the navy as a whole?

Secretary DANIELS. When you use the word "preeminent," I could not say he was preeminently greater than Fletcher and Adger, or other men; not at all. I would say he was an able, experienced, capable man. I would not qualify those gentlemen as being preeminent over the others.

The CHAIRMAN. And you considered that he was particularly well versed in the history of naval warfare?

Secretary DANIELS. He was well versed in the history of naval warfare.

The CHAIRMAN. Particularly so?

Secretary DANIELS. I never examined him on history. Whenever I discussed with him matters of former naval battles, I always found him well informed. I would not have selected him to be professor of history in Johns Hopkins or Harvard, nor would I have selected a man from the chair of history to be Chief of Operations.

The CHAIRMAN. He had never been in command of a fleet of battleships and their subsidiaries?

Secretary DANIELS. I think not.

The CHAIRMAN. There is no question about that, is there?

Secretary DANIELS. He had never been in command of a fleet.

The CHAIRMAN. Was he noted as a naval strategist?

Secretary DANIELS. He stood very high as a naval strategist.

The CHAIRMAN. Was he noted as a strategist?

Secretary DANIELS. He was regarded by his fellow officers as one of the ablest strategists and tacticians. When he was appointed, the naval press, the public press, the naval officers, the whole service with very few exceptions, declared that it was an ideal appointment.

The CHAIRMAN. What outstanding qualities did he possess that led you to appoint him—a captain—over the heads of those rear admirals, to be in general control of the entire Navy?

Secretary DANIELS. He had been captain of the *Utah*, and I had known him as captain of the *Utah*. I think that was the service he was rendering when I became Secretary of the Navy. When we had to make a change in the Superintendent of the Naval Academy, Admiral Badger and a number of other officers recommended Capt. Benson to me to be Superintendent of the Naval Academy and said that, having been commandant there, he had shown such ability that he would be the best man for superintendent. I did not know him very well then. I knew him afterwards as captain of the *Utah*. When we had to make a change in the commandant of the Philadelphia Navy Yard, one of the most important positions on shore duty in the Navy, the consensus of opinion of admirals and captains with whom I talked was that Benson was admirably qualified for that or any other duty in the Navy requiring ability, responsibility, and judgment, and so he was appointed to that place.

And then, in pursuance of the policy to enlarge the Philadelphia Navy Yard, of making it into a shipbuilding yard as well as a repairing yard, I had visited the Philadelphia yard several times, and I had talked with Admiral Benson about naval policies and naval development and naval matters. I found he was frank, direct, well informed; an excellent officer; and so, when it came to the time of selecting the Chief of Operations I felt first of all that I wished to bring a man to Washington who would bring a fresh, clear view to this great office, and I talked with different officers and I learned that my opinion of Admiral Benson was shared by officers of high standing, and so he was appointed.

The CHAIRMAN. Mr. Secretary, the House Naval Affairs Committee report recommended that 15 officers be assigned for duty to the planning division, but the Senate bill which you approved of omitted that provision. Why was that?

Secretary DANIELS. I think it was a perfectly absurd proposition to put in any act of Congress that a certain number of officers shall be assigned to a certain duty. We have had as many as 60 there. We have had as many as 50. We have had as few as 15. I do not think that you ought to limit the number of officers, but you ought to have as many men as are needed.

The CHAIRMAN. You have had fewer than 15, have you not?

Secretary DANIELS. Yes.

The CHAIRMAN. I think when the war started Capt. Pratt testified that there were only three.

Secretary DANIELS. As I said to you just now, I will give you tomorrow morning the number we had. I have not the figures with me. But the Secretary of the Navy and the Chief of Operations ought not to be limited by law.

The CHAIRMAN. I would like to have you give me the number on February 1, 1915, and on the 1st of—

Secretary DANIELS. You had no Chief of Operations on February 1, 1915.

The CHAIRMAN. I mean 1917.

Secretary DANIELS. You mean 1917?

The CHAIRMAN. Yes.

Secretary DANIELS. I will do that.

The number of officers in Operations at various dates is as follows:

Feb. 1, 1917	47
Apr. 6, 1917	50
July, 1917	61
January, 1918	162
July, 1918	204
Nov. 11, 1918	281
In Operations now	110

Secretary DANIELS. The Chief of Operations ought not to be limited. Sometimes he ought to have a very large number. Sometimes he does not need a very large number. I always think that it is a mistake for Congress to go into the details. You might as well say that you should have only so many officers in Ordnance. Before the war we had very few officers in Ordnance, and during the war we had many more; and so, in all offices; you are bound to make the same distinction.

The CHAIRMAN. I take it that if the law provided there should be 15 officers assigned exclusively for work in the planning section, there would be nothing to prevent you putting others on there?

Secretary DANIELS. It was a perfectly unnecessary provision and hampered the bill, and I believe that legislation ought to be very brief and ought not to require the number. I think it was an immaterial section, and therefore it ought not to have been in.

The CHAIRMAN. Do you remember when you had 15 officers devoting all their time to this planning section?

Secretary DANIELS. No, sir. I can get you the figures.

The CHAIRMAN. The figures you are going to give me will show that, will they not?

Secretary DANIELS. Yes. You must remember this: When you speak about planning, the great plans of the Navy are made by the General Board. The operative plans are made in Operations, so that it is a matter of not very great importance, so long as you have enough men of ability and experience to carry out the duty in hand. I would rather have four or five men like Pratt than 15 men who had not had experience in writing plans. I think the number is immaterial so long as you have enough men to do the work.

The CHAIRMAN. Now, Mr. Secretary, as I told you before, I have asked a number of officers of the Navy to submit to the committee suggestions as to changes that might be valuable in the organization of the Navy.

Secretary DANIELS. Whom have you asked, Mr. Chairman?

The CHAIRMAN. I have a list here that I will give you, and also, if you have any suggestions about this matter, I should be very glad if you would submit a paper to the committee.

Secretary DANIELS. I might give you some names of officers whom you might ask. I would prefer not to ask any, myself, because while, of course, this committee has a perfect right—or the full committee—to take up matters of organization, and while I would not for a minute assume to say what the functions of this committee are, of course no legislation looking to organization should be taken up except by the full committee, and I should think that was entirely outside the authority of this committee, investigating for the purpose for which it was organized. However, if you desire, I shall give you some names of some officers who have made some study of organization.

The CHAIRMAN. I have asked the following officers to submit suggestions: Admiral Fullam, Admiral Badger, Admiral Fiske, Admiral Mayo, Admiral Knight, Admiral Coontz, Admiral Fletcher, Admiral Sims, Admiral McKean, Admiral Twining, Capt. Pratt, Capt. Laning, and Commander Pine; and I have also asked Assistant Secretary Roosevelt to submit suggestions.

Secretary DANIELS. I would suggest, Mr. Chairman, without naming names, that at once you ask—

The CHAIRMAN. I also asked Admiral Wilson and Admiral Rodman, I believe, while they were here if they had any suggestions, and they said they had not.

Secretary DANIELS. It would also be well for you to ask all the chiefs of bureaus or departments, who have had larger experience in administration than most of these men.

The CHAIRMAN. Will you give me a list of them?

Secretary DANIELS. Yes; I will send you a list.

The CHAIRMAN. The purpose of doing this, as I have said before, is to get these suggestions from the various officers; and then I hope, and think, that the committee will suggest that a board of experts, a commission of experts like the Mahan Board, be appointed to go over these different suggestions and make recommendations; and I think this board or commission should have on it a number of civilians, so that it will not be entirely a naval commission.

Secretary DANIELS. Well, it will be interesting as a pure academic study.

The CHAIRMAN. I think after a great war such as we have had it is not improbable that something can be learned.

Secretary DANIELS. Undoubtedly. There never was an organization in the world that was perfect. And if you decide to take that up in your full committee, I take it you could not do so at this session of Congress; and if you decide to take it up in your full committee, I shall ask to be heard before the full committee before action is taken.

The CHAIRMAN. We have no authority to appoint any commission. Secretary DANIELS. No.

(Thereupon, at 12 o'clock m., the subcommittee took a recess until 3.30 o'clock p. m.)

AFTER RECESS.

The committee met at 3.35 o'clock p. m. pursuant to the taking of recess.

The CHAIRMAN. The committee will come to order. Are you ready to proceed, Mr. Secretary?

Secretary DANIELS. Yes; Mr. Chairman, I am ready.

The CHAIRMAN. When did the European situation, between the summer of 1914 and the spring of 1917, cause you to take the first definite step to prepare the Navy for the contingency of its having to participate?

Secretary DANIELS. We were preparing the Navy all the time for the contingency, and contingency that might arise.

The CHAIRMAN. I refer particularly to the effect that the European situation had on your plans to prepare the Navy.

Secretary DANIELS. Well, of course, in 1914 we did not think America would be drawn into the war. We went forward with preparations for that or any other emergency.

The CHAIRMAN. But you do not think that America would be drawn into the war?

Secretary DANIELS. I did not think so in 1914.

The CHAIRMAN. When did you first think that it would be drawn into the war?

Secretary DANIELS. Well, I do not remember the date. As it went on—with the sinking of the *Lusitania* I feared it.

The CHAIRMAN. And thereafter did you get over that fear?

Secretary DANIELS. No; I always feared it from then on, but I hoped that national honor would not make it necessary for America to be involved.

The CHAIRMAN. Was it your opinion that national honor would not make it necessary for America to be involved?

Secretary DANIELS. When?

The CHAIRMAN. After the sinking of the *Lusitania*.

Secretary DANIELS. I was waiting for Congress to determine that question.

The CHAIRMAN. And in the meanwhile were you taking any special steps to prepare the Navy?

Secretary DANIELS. Oh, yes. Yes; Mr. Chairman, I gave you the dates the other day of what we did in 1915.

The CHAIRMAN. Begin with 1914, Mr. Secretary, after August 1.

Secretary DANIELS. In 1914 I made recommendations to Congress, estimates to Congress for the appropriations for that year. It was

a very difficult matter to secure the passage of the bill for as large an estimate as I made. I asked Congress for two dreadnaughts and many other things. And by only a majority of 9 did we get it through the House. The motion was made to strike out 2 dreadnaughts and put in one. That was in the winter after I had recommended two dreadnaughts. We passed it, I think, by a majority of 9, or a change of 9 would have knocked out two dreadnaughts and given us only one. We also had a program for other construction. But the very large program was announced by me in the summer of 1915. I will give you the dates which will show that from two days after the sinking of the *Lusitania* we began to do very great things. The act of 1914, after sinking of the *Lusitania*, we secured the first naval reserve we ever had, which would enable us at any time of emergency to bring into the Navy a reserve.

The CHAIRMAN. 1914?

Secretary DANIELS. 1914. I will get for you, Mr. Chairman, and put in the hearings my estimates made in October, 1914. I have not them here. It will show what we were doing, and an extract from my report showing what we recommended.

The CHAIRMAN. Has not that already been put in the record?

Secretary DANIELS. No; I think not.

The CHAIRMAN. Well, I want in a general way to know the steps that you took between 1914 and 1915?

Secretary DANIELS. We took steps in 1914 to secure a naval reserve and to secure large construction of ships and to secure the building of all the ships we had as rapidly as possible. I will put that in the hearings.

The CHAIRMAN. That brings them down to—

Secretary DANIELS. 1915.

The CHAIRMAN. 1915?

Secretary DANIELS. Yes; and I will place in the hearings—I wish I had them here—in 1915, I think two days after the sinking of the *Lusitania*, I called upon the General Board to make a report of such increase or additions to the Navy as would make the Navy the equal of any navy in the world. A little later I called upon the General Board to give me the details of how they would use \$500,000,000 in new construction that would best enable the Navy to be an efficient agency of the Government to protect it in case of war.

I gave you the other day—I am sorry I have not a copy of it now, but the stenographer who took it is not here—a detailed statement of the various acts of 1915. We recommended quite a number of very important measures, of which, of course, the building program, the new naval-reserve act in 1915, the dreadnaughts, the increase of personnel, the increase of officers, were examples, and made a bill which I think increased naval appropriations that year from \$140,000,000 to \$340,000,000.

The CHAIRMAN. Mr. Secretary, these matters appear in your statement that you have already made?

Secretary DANIELS. I gave you a long list.

The CHAIRMAN. Right down to 1917?

Secretary DANIELS. I gave it. I do not think it is necessary to go into it again.

The CHAIRMAN. It is unnecessary.

Secretary DANIELS. But I only gave, I think, 1915. I have a record of 1916.

On January 5, 1916, hearings were begun by the House Naval Committee on the naval appropriation bill.

On May 31, 1916, the Secretary of the Navy appeared before the House Naval Committee in support of a five-year building program.

On May 24, 1916, the naval bill was reported to the House, calling for 5 battle cruisers, 4 scout cruisers, 10 destroyers, 20 submarines, 1 fuel ship, 1 ammunition ship, and 1 hospital ship.

On May 31, 1916, occurred the Battle of Jutland.

On June 2, 1916, a bill was passed by the House calling for 5 battle cruisers, 4 scout cruisers, 10 destroyers, 50 submarines, 1 fuel ship, 1 ammunition ship, and 1 hospital ship, a total of 72 to be built at once.

On June 8, 1916, a bill was received by the Senate and referred to the Naval Committee, which, with the concurrence of the Secretary of the Navy, recommended that the entire program be laid down within three years instead of five years, as originally proposed. It was in this form that the bill was finally passed by both Houses of Congress and received the approval of the President.

On June 30, 1916, the Senate Naval Committee reported a bill calling for 10 battleships, 6 battle cruisers, 10 scout cruisers, 50 destroyers, 9 fleet submarines, 58 coast submarines, 1 submarine (Neff system), 34 fuel ships, 1 repair ship, etc., a total of 157, 66 to be begun at once, the remainder prior to July 1, 1919.

On July 21, 1916, the bill passed the Senate.

On July 31, 1916, to August 2, 1916, the House conferees held hearings on the Senate amendment to the bill in regard to personnel legislation.

On August 11, 1916, conferees submitted partial report.

On August 18, 1916, conferees submitted final report and report agreed to by House.

The bill as finally adopted provided for 157 war vessels to be built within three years; immediate increase in enlisted strength to 74,700, plus the hospital corps, and authorized the President, in emergency, to increase the authorized enlisted strength to 87,000 plus 6,000 apprentice seamen and 4,000 hospital corpsmen, a total of 97,000.

On August 29, 1916, the President approved the act. The department issued plans and specifications and invited bids for practically all vessels, except battle cruisers appropriated for, to be begun in first year, including 4 battleships, 4 scout cruisers, 20 destroyers, and 27 submarines. The law required 60 days advertisement before opening of bids, and as soon as bids were opened all these were contracted for. Instructions were issued to navy yards August 29 for construction of one fuel ship, one hospital ship, and one gunboat.

The Navy recruiting organization was extended to all parts of the country and active campaign for recruits began.

On October 2, 1916, bids were invited and plans and specifications issued for battle cruisers.

The Bureau of Navigation was working out plans for creating a large naval reserve, which had been authorized in the act of August 29.

On October 25, 1916, bids on battleships and destroyers were opened, and contracts were let forthwith.

On November 1, 1916, bids on scout cruisers and submarines were opened, and contracts were let at once.

On December 1, 1916, the Secretary called attention to the enormous task imposed upon the department in securing increase of ships and personnel provided for in the act of August 29; recommended that practically half of the 90 vessels still to be appropriated for in the three-year program be laid down in the next fiscal year, and that additional powers be granted the Navy Department in placing contracts, securing materials, and insuring that the completion of the entire building program be expedited. He announced that plans for naval projectile and armor plant at Charleston, W. Va., extension of Naval Gun Factory at Washington, extension of navy yards, etc., had been made, and work on these various improvements had been started or would soon be begun.

The CHAIRMAN. That carries you through 1916?

Secretary DANIELS. 1915 was in the hearings first.

The CHAIRMAN. Now, Mr. Secretary, the first steps, then, to prepare the Navy for the contingency of its having to participate in the war were taken in the fall of 1914?

Secretary DANIELS. The first steps taken? No. We had been taking steps the year before the war was declared, and three battleships—

The CHAIRMAN. I know, but the first steps after the outbreak of the war?

Secretary DANIELS. Those steps were taken to strengthen the Navy—

The CHAIRMAN. Not especially for the war?

Secretary DANIELS. For that war or any other war that might come.

The CHAIRMAN. And not especially for that particular war?

Secretary DANIELS. Yes; that particular war if we got into it. But I could not—

The CHAIRMAN. Now, did you talk over with your professional advisers these steps that you were taking in 1914?

Secretary DANIELS. Certainly.

The CHAIRMAN. When did they give you advice about preparing the Navy for the contingency of its having to participate in this war?

Secretary DANIELS. I do not recall that they gave me advice at any particular date about taking part in that particular war, but we were all of us interested in strengthening the Navy so that if we should be drawn into the war we should be in a better shape, and we particularly felt that a strong naval reserve, and we particularly felt that more battleships were the necessary things to have.

The CHAIRMAN. Now, Mr. Secretary, I have here Senate Document 413, of the Sixty-fourth Congress, first session. In it is a letter which you wrote to the Senate on April 21, 1916, and which I will now read.

Secretary DANIELS. What date is that?

The CHAIRMAN. April 21, 1916. [Reading:]

THE SECRETARY OF THE NAVY,
Washington, April 21, 1916.

To the Senate:

I am in receipt of the resolution adopted by the Senate on April 12, 1916, calling for—

(1) A communication, dated August 3, 1914, from the General Board of the Navy warning the Navy Department of the necessity of bringing the Navy to a state of preparedness.

Secretary DANIELS. What date was that?

The CHAIRMAN. What?

Secretary DANIELS. A report when?

The CHAIRMAN. Dated August 3, 1914. [Reading:]

(2) A communication, dated November 9, 1914, from Rear Admiral Bradley A. Fiske, senior adviser to the Secretary, warning the Navy Department of the unprepared state of the Navy.

Secretary DANIELS. Both are from Fiske?

The CHAIRMAN. The first was a letter from the General Board of the Navy and the second is from Admiral Fiske. I have a copy of 413 here.

Secretary DANIELS. Let me have that, please, sir.

The CHAIRMAN. I will continue with the letter. [Reading:]

Upon receipt of this revolution, diligent search was made in the files of the department for the communications desired. That, dated November 9, 1914, from Rear Admiral Fiske, is appended hereto. The chief clerk was unable to find it in his files, it having been withdrawn by an officer who "looked it up several times but could not find it." However, the copy herewith transmitted was furnished the department by Admiral Fiske at my request.

This communication was not furnished me, and I did not know of its existence until long after it was written. I find upon inquiry that it was filed with the chief clerk, without my knowledge that it had been written. Although Admiral Fiske was in office daily he did not tell me that he had placed the communication on file. His article was written after the estimates for the Navy, as required by law, had been submitted, and I was left in ignorance of its existence, while Congress was considering legislation for the increase of the Navy and actually enacting legislation which has secured the best organization the Navy department has enjoyed in its history. I was greatly surprised when I learned that a communication deemed important enough now to be the subject of a Senate resolution was not considered by its author of sufficient importance for him to present in person to me, instead of depositing it, without acquainting me of his action, in the files of the Navy Department.

We were unable to find any communication such as that described in the resolution from the General Board under date of August 3, 1914, though our files contained a letter of two days previous not bearing upon the subject mentioned in your resolution. I therefore addressed the following letter to Admiral Dewey, President of the General Board:

APRIL 17, 1916.

MY DEAR ADMIRAL DEWEY: I am in receipt of a resolution from the Senate requesting me to send "a communication, dated August 3, 1914, from the General Board of the Navy, warning the Navy Department of the necessity of bringing the Navy to a state of preparedness."

I have made a careful examination of the files of the Navy Department and have not been able to find any such communication. If the General Board has such a communication of that date, won't you please send me a copy?

Sincerely, yours,

JOSEPHUS DANIELS.

Admiral DEWEY.

President of the General Board, Washington.

In response to this inquiry, I received the following letter from Admiral Dewey:

OFFICE OF THE ADMIRAL OF THE NAVY,
Washington, April 18, 1916.

MY DEAR MR. SECRETARY: I am in receipt of your letter of the 17th instant asking me to send you a communication from the General Board, dated August 3, 1914, "warning the Navy Department of the necessity of bringing the Navy to a state of preparedness."

There is no letter or recommendation from the General Board bearing the date of August 3, 1914. I find, however, that on August 1, 1914, a special meeting was called at the request of Rear Admiral Fiske, aid for Operations, to consider the withdrawal of battleships from Mexican waters to their home yards. A letter adopted at this meeting, and bearing its date, was signed by Rear Admiral Knight, senior member present, a copy of which is forwarded herewith.

You will note that this is a confidential communication, and as it bears intimately upon our policy with regard to certain foreign powers, I do not think it advisable that it should be given to the public.

Sincerely, yours,

GEORGE DEWEY.

HON. JOSEPHUS DANIELS,
Secretary of the Navy.

It will be noted that Admiral Dewey states the communication of August 1, 1914, "bears intimately upon our policy with regard to certain foreign powers," and that he does "not think it advisable that it should be given to the public." In view of this statement of Admiral Dewey and of the fact that the letter of August 1, 1914, does not refer to "the necessity of bringing the Navy to a state of preparedness," as stated in the resolution adopted by your body, it does not appear to be in the public interest to transmit the confidential communication of the General Board of August 1, 1914. No other report from the General Board touching preparedness has been received except those published as appendixes to my reports and in my hearings before the House Committee on Naval Affairs.

Respectfully,

JOSEPHUS DANIELS.

I call your attention to the evidence in this letter, which is that April 18, 1916, Admiral Dewey transmitted to you a copy of a letter dated August 1, 1914, and that you, having that letter in your possession on April 21, wrote to the Senate that it "does not refer to 'the necessity of bringing the Navy to a state of preparedness.'"

Secretary DANIELS. A letter from the General Board?

The CHAIRMAN. Yes.

I will now read the letter which you state to the Senate did not refer to preparedness.

Secretary DANIELS. Mr. Chairman, I stated that every letter that I got from the General Board and every action that I took regarded a state of preparedness. That was the only business of the Navy.

The CHAIRMAN. But you stated in this letter that it did not deal with the subject of preparedness.

Secretary DANIELS. That was its main reason, I suppose. Read the letter, or let me read it.

The CHAIRMAN (reading):

NAVAL WAR COLLEGE,
Newport, R. I., August 1, 1914.

From: Senior member present.

To: Secretary of the Navy.

Secretary DANIELS. I submit—

The CHAIRMAN (reading):

Subject: Withdrawal of battleships to home yards.

What is it?

Secretary DANIELS. Go ahead. From senior aid; that is what I meant. I said this morning that the letters that I received from Admiral Fiske were so numerous and generally so bulky and had to do with Prussianizing the Navy that I regarded them as of little importance.

The CHAIRMAN. This is a letter from Admiral Knight [reading]:
Subject: Withdrawal of battleships to home yards.

In view of the immediate danger of a great war in Europe, and in pursuance of its duties as laid down in paragraph R 167 (1) of the Navy Regulations, the General Board earnestly urges that the battleships be brought home, docked, and put in perfect readiness, with the exception of the ships actually necessary in Caribbean and Mexican waters.

(2) The present situation in Europe is absolutely without precedent; not only in the vast extent and variety of the interests involved, but in the suddenness with which it has developed.

(3) It is not clear at this moment that any interests of the United States are threatened. Yet it would be rash to assume that there may not emerge from the extraordinary situation in which so large a part of the world has become unexpectedly involved some incident or combination of incidents fraught with danger to our interests.

(4) Our commercial interests are closely interwoven with those of every one of the great powers which are apparently on the verge of war. Our trade routes pass through the waters of those powers and terminate in their ports. Our privileges and duties as neutrals may easily become matters of misunderstanding and controversy.

(5) There are said to be 300,000 United States citizens now in Europe. Many thousands of them are claimed by European powers as liable to military service, and those who find themselves abroad may at any moment be arrested and impressed. As bearing upon this point the following quotation from a press dispatch of July 31 is pertinent:

"Other Americans whose safety promises to be a serious matter are now naturalized citizens passing between Europe and the United States. Efforts may be made by European belligerents to arrest such people because of their nativity, regardless of their naturalization."

Should incidents occur such as are here forecast, they could hardly be ignored, and this is only one of the many difficulties that may arise in connection with the interests, personal and commercial, of American citizens residing or traveling abroad.

(6) Another press report from Copenhagen, of the same date, suggests another source of complications, if the report is authentic. The report is as follows:

"A German squadron, cruising off Langeland, in the Great Belt, is stopping all vessels to investigate their nationality and the destination of their cargoes."

There is so little American shipping engaged in foreign trade that such procedure in the locality mentioned is hardly likely to affect American vessels; but what has happened in one place may happen in another. The United States would hardly permit its merchant ships to be overhauled by foreign men of war when no actual state of war exists, and the spirit thus manifested by the German squadron might cause acts in violation of neutrality after war has supervened.

(7) In the event of a general European war it is probable that foreign shipping will endeavor to register under the United States flag. The shipping then needed adequate to supply the war requirements of European nations will be enormous. Many questions of neutrality, or alleged breaches of neutrality, may, in the irritable condition of public opinion at home and abroad, result in strained relations, and, notwithstanding all efforts to the contrary, may further result in the embroilment of this country with some country or countries of Europe.

(8) Again, the merchants of the United States will certainly endeavor to supply immense quantities of munitions of war, arms, ammunition, fuel, food, and other war-like supplies with the resulting accusation that the country has become a base from which war is supported against friendly nations in violation of its proclamation of neutrality.

(9) There are other possible complications—belligerents always tend to overstep their powers in executing the right of search; disputes will arise over

the definition of contraband; and accusations of unneutral service will be brought against the United States traders and foreigners doing business under the United States flag.

(10) A serious possibility for the United States connected with a great European war lies in the changes of sovereignty in possessions on or adjacent to the American continent that may result from corresponding changes in sovereignty on the continent of Europe. We can not forecast the eventualities of such a war. Many indications exist that Germany desires a foothold in American waters, and it is well known that she does not concur in the Monroe doctrine. If Great Britain is drawn into war the German fleet will be neutralized, as far as any danger from it to our interests in the intermediate future is concerned. If she is not, and if the end of the war should find Germany stronger than ever in her European position and with her fleet practically unimpaired, the temptation will be great to seize the opportunity for obtaining the position she covets on this side of the ocean. We should prepare now for the situation which would thus be created.

Now, Mr. Secretary, will you please reconcile the statement in your letter of April 21, 1916, to the United States Senate with the purport of the letter of the General Board to you, which I have just read?

Secretary DANIELS. This letter that you have just read stated—and it was not—I thought you were referring to the report of the General Board, which would come to me in the regular way. This seems a report from Newport, which is not the report of the General Board, with regard to the building program or other strengthening of the Navy. It seems that that report deals with conditions in Europe. The General Board, when it makes a report of that kind, always makes specific recommendations. This report of Admiral Knight touches upon the question of our preserving our neutrality. That summer, in fact, immediately after we entered the war, the State Department and Navy Department organized a neutrality board to look after all of our interests. The State Department named on that board a very distinguished lawyer, and I named Admiral Oliver and Admiral Knapp, and they were concerned and did a very important work on active neutrality. As soon as war broke out we went over the *Tennessee* with funds for these Americans that Admiral Knight talks about who were abroad. A board composed of the Secretary of the Treasury, the Secretary of the Navy, and other officers of the Cabinet took up every matter that could help Americans abroad, both with funds and in other ways.

I do not regard that letter from Admiral Knight as an official recommendation, otherwise than that we should bring the ships from Mexico, and should go ahead, as the General Board recommended in its report, with increasing the Navy. I did not regard the letter written by Admiral Knight from Newport as an official report of the General Board, but as a letter——

The CHAIRMAN. I would like to take that matter up afterwards. I want to finish with this letter of August 1.

Secretary DANIELS. Oh, I thought you had finished.

The CHAIRMAN. I want to ask some questions about it.

Secretary DANIELS. I thought you had finished.

The CHAIRMAN. You stated that this was not an official letter.

Secretary DANIELS. I did not regard that letter from Admiral Knight as the official action of the General Board, which they always send every year to the Secretary of the Navy with reference to what

he had done, but as a letter from Admiral Fiske and Admiral Knight expressing views.

The CHAIRMAN. The resolution of the Senate, Mr. Secretary, called for a communication dated August 3, 1914, from the General Board of the Navy, warning the Navy Department of the necessity of bringing the Navy to a state of preparedness. The first paragraph of this letter says:

In view of the immediate danger of a great war in Europe and in pursuance of its duties as laid down in paragraph R 167 (1) of the Navy Regulations, the General Board earnestly urges that the battleships be brought home, docked, and put in perfect readiness, with the exception of the ships actually in Caribbean and Mexican waters.

Secretary DANIELS. Are you through?

The CHAIRMAN. No, sir. In your letter to the Senate you made the following statement:

We were unable to find a communication such as that described in the resolution from the General Board under date of August 3, 1914, though our files contained a letter of two days previous—

That is August 1—

not bearing upon the subject mentioned in your resolution. I therefore addressed the following letter to Admiral Dewey.

How can you reconcile that?

Secretary DANIELS. I will read you Admiral Dewey's letter:

MY DEAR MR. SECRETARY: I am in receipt of your letter of the 17th instant asking me to send you a communication from the General Board.

The CHAIRMAN. I have read that.

Secretary DANIELS. I will read it again. [Reading:]

August 3, 1914, "warning the Navy Department of the necessity of bringing the Navy to a state of preparedness."

There is no letter or recommendation from the General Board bearing the date of August 3, 1914. I find, however, that on August 1, 1914, a special meeting was called at the request of Rear Admiral Fiske, aid for Operations, to consider the withdrawal of battleships from Mexican waters.

The CHAIRMAN. This is the second letter?

Secretary DANIELS. April 18.

The CHAIRMAN. Yes.

Secretary DANIELS. In response to this inquiry. You will note that this is "to consider the withdrawal of battleships from Mexican waters."

Now, Mr. Chairman, I will say this: When the situation developed at Vera Cruz with regard to sending ships in Mexican waters, when I became Secretary of the Navy, I found that the previous administration had sent battleships into Mexican waters. When we sent the whole fleet down there, there was a question. Admiral Fiske never felt they ought to be sent. When I told him that they had been ordered sent he felt that the battleships ought not to go. I had no doubt they ought to go, and they did go, and from that time on Admiral Fiske was, in May—well, in June, July, and August—was insisting that they should all come back. The matter of keeping them there was not a matter for Admiral Fiske to decide. It was a matter for the administration to decide. They were kept there in conformity with the policy of the administration. Admiral Fiske, when he was in Newport, evidently thinking still that his idea was

right, called this meeting, as Admiral Dewey says, "I find, however, a special meeting was called at his request," to take action on bringing ships from Mexican waters. Now, I suppose that that was the main purpose of this communication, which I have here before me, written by Admiral Fiske, except that the chief thing in this letter is the same thing he is always writing about, our Navy Department has no machinery for doing what a General Staff does.

The CHAIRMAN. You are not referring to the letter of August 1?

Secretary DANIELS. I am referring to the letter of Admiral Fiske.

The CHAIRMAN. I want to finish with the letter of August 1.

Secretary DANIELS. Let me see that letter, if you please.

(The letter was handed to Secretary Daniels.)

I do not recall Admiral Knight's letter, Mr. Chairman, so many things have happened since August, 1914.

The CHAIRMAN. Yes; but you recalled it when you wrote this letter of—

Secretary DANIELS. April 21; yes. The letter speaks for itself. I can not recall all these facts, but that letter speaks for itself.

The CHAIRMAN. Which letter?

Secretary DANIELS. The letter I wrote to the Senate. I wrote the facts as they were then.

The CHAIRMAN. Yes; but Mr. Secretary, the Senate called on you for two communications. The first request was for a communication dated August 3, 1914, from the General Board of the Navy warning the Navy Department of the necessity of bringing the Navy to a state of preparedness. In your letter to the Senate you state that you are unable to find any communication such as that, while in the communication from the General Board under date of August 3, 1914, "though our files contained a letter of two days previous not bearing upon the subject mentioned in your resolution."

Now, how do you reconcile that?

Secretary DANIELS. You refer to the letter of Admiral Fiske?

The CHAIRMAN. I refer to the letter of August 1 which I have just read to you. How do you reconcile your statement that that does not bear upon the subject mentioned in the resolution, which is—

Secretary DANIELS. I do not recall, Mr. Chairman. I do not recall this letter from Admiral Knight.

The CHAIRMAN. But you spoke of it yourself.

Secretary DANIELS. Yes; in my letter of April 21 I stated the facts as I understood them then.

The CHAIRMAN. But you said in your letter that the letter did not bear upon the subject mentioned in the resolution. On looking the letter over, do you not think it bore on the subject of the resolution?

Secretary DANIELS. I stated that by the authority of Admiral Dewey, who says, "There is no letter or recommendation from the General Board bearing the date of August"—

The CHAIRMAN. August 3?

Secretary DANIELS. August 3. Admiral Dewey in his letter of April 18 says that this was a letter "to consider the withdrawal of battleships from Mexican waters to their home yards."

The CHAIRMAN. As a preparation for war?

Secretary DANIELS. Yes. You will observe that this letter says, "August 1, 1914. Subject: Withdrawal of battleships to home yards."

The CHAIRMAN. Precisely; but is also specifies for what purpose they were to be withdrawn.

Secretary DANIELS. They were to be withdrawn to the home yards to be repaired and kept in shape just as soon as they could be. I can give you the time if you desire.

The CHAIRMAN. Do you not think, Mr. Secretary, that that letter was a letter that the Senate was entitled to have when it made a formal demand on you for it? Do you not think that the letter did bear upon the subject of preparedness?

Secretary DANIELS. I will answer your question by reading what Admiral Dewey said about that:

You will note that this is a confidential communication, and as it bears intimately upon our policy with regard to certain foreign powers I do not think it advisable that it should be given to the public.

In response to his statement I wrote my statement.

The CHAIRMAN. Based on that, did you give the Senate the information that you had in your files, a letter of two days previous, bearing upon the subject mentioned in their resolution?

Secretary DANIELS. I gave the Senate what you have here.

The CHAIRMAN. There appears the statement over your signature.

Secretary DANIELS. What I gave was this letter to the Senate.

The CHAIRMAN. Do you consider that you were justified in making that statement?

Secretary DANIELS. I considered, in view of Admiral Dewey's statement, that I was justified.

The CHAIRMAN. You do consider that you were justified?

Secretary DANIELS. I consider that; yes.

The CHAIRMAN. Then you consider now that this letter does not bear upon the subject of preparedness?

Secretary DANIELS. Well now, I will tell you, what Admiral Fiske was in attendance of at Newport I do not know. I never paid much attention to it.

The CHAIRMAN. I do not think that makes any great difference, does it, Mr. Secretary?

Secretary DANIELS. It makes a great difference when I get a letter on the withdrawal of battleships to home yards, which was the main purpose of the letter. That matter was taken up, and the ships were withdrawn to home yards.

The CHAIRMAN. For what purpose?

Secretary DANIELS. To be repaired. If there had never been any letter it would have been done. I do not have to wait for a letter from Newport to bring ships home to Mexico and put them in readiness. That was a matter of ordinary routing which aid to Material would attend to.

The CHAIRMAN. I will read again, Mr. Secretary, the first paragraph:

In view of the immediate danger of a great war in Europe and in pursuance of its duties as laid down in paragraph R 167 (1), of the Navy Regulations, the General Board earnestly urges that the battleships be brought home, docked, and put in perfect readiness, with the exception of the ships actually necessary in Caribbean and Mexican waters.

That was from the head of the General Board?

Secretary DANIELS. No.

The CHAIRMAN. It was a formal letter, was it not?

Secretary DANIELS. Mr. Chairman, let me answer you. The question of the ships in Mexico was one about which I had had many conferences with Admiral Fiske.

The CHAIRMAN. This is not Admiral Fiske. It is Admiral Knight.

Secretary DANIELS. It is a meeting called at the request of Admiral Fiske on the question of ships in Mexican waters, that were there by direction of the Commander in Chief of the Navy. It was not the business of Admiral Fiske or Admiral Knight or the General Board to tell the President of the United States when he should take ships away from Mexico. They were brought back as soon as the exigencies required, as determined by the Commander in Chief, who ordered them back. The aide to matériel put them in dock, made them ready for any emergency. If you wish to know the date they were brought back, I can not find it now. It was not a matter for the General Board to tell the Commander in Chief, particularly for a small branch of the General Board at Newport, what he should do about the ships in Mexico.

The CHAIRMAN. Who was at the head of the General Board?

Secretary DANIELS. Admiral Dewey.

The CHAIRMAN. And Admiral Knight was on the General Board?

Secretary DANIELS. I think he was ex officio by being president of the War College.

The CHAIRMAN. Now, you think therefore that you were justified in telling the Senate that this letter to which you yourself refer as having in your files did not bear upon the subject mentioned in the resolution? You think you were justified in telling that to Congress?

Secretary DANIELS. Yes, for this reason; because Admiral Dewey said that it was a confidential communication bearing intimately upon our policy with certain foreign powers, and as its title was "Withdrawal of battleships to home yards," and as its main purpose was to carry out neutrality conditions, which we were carrying out, I think it was at the time a proper answer.

The CHAIRMAN. Then, Mr. Secretary, if Congress asks of you a communication, a specific communication bearing on a specific matter, and you have that communication, and know that it bears upon that specific matter—

Secretary DANIELS. Oh, I say to you—

The CHAIRMAN. You feel you would be justified in telling them that it does not bear upon that matter, and is merely a confidential communication?

Secretary DANIELS. I say to you that it did not bear upon that matter primarily. The mere title of it shows you that it bore upon "Withdrawal of battleships to home yards," and the president of the General Board, Admiral Dewey, tells me that it is a confidential communication.

The CHAIRMAN. But does he tell you that it does not bear upon the resolution of Congress?

Secretary DANIELS. He writes a letter on April 18, after the resolution of Congress, and says, "I do not think it would be advisable"—

The CHAIRMAN. Precisely.

Secretary DANIELS. "To give to the public." I asked upon the advice of Admiral Dewey.

The CHAIRMAN. Could you not have told Congress it was a confidential letter and therefore not to be sent to them? Did you have

to tell them that it did not touch on the matter connected with the resolution?

Secretary DANIELS. I do not think, sir, that this letter can be said in its primary import to bear upon it.

The CHAIRMAN. To bear upon naval preparedness?

Secretary DANIELS. Listen to the letter.

The CHAIRMAN. Read the first paragraph.

Secretary DANIELS (reading). In view of the immediate danger of a great war in Europe " means should be taken, and urges that the ships be brought from the Caribbean and Mexican waters. Now, Mr. Chairman, as I have said three times, the President of the United States, the Commander in Chief, had sent those ships to Mexico. It was his business, and my business acting through him, to order them back, and I rather resented—I do now—the action of Admiral Fiske, without consultation with the Secretary of the Navy or any other responsible officer in Washington, going to Newport and writing a letter stating that they insisted that a policy should be carried out which the President of the United States had not decided to carry out. It had reference to international matters.

The CHAIRMAN. That, Mr. Secretary, might very well be, that you did not like his doing it or did not regard the matter as important, but that would not justify giving information to the Senate which is not borne out by the facts.

Secretary DANIELS. The information I gave to the Senate was based upon the letter of Admiral Dewey.

The CHAIRMAN. It does not deal with the question of whether it touched on the resolution or not.

Secretary DANIELS. Now, Mr. Chairman, there is not, as I see, in this letter a single recommendation from the General Board or from this small meeting of the board in Newport advocating any policy that would strengthen the Navy. The General Board met the next month, in October, and then is when they made their recommendations.

The CHAIRMAN. Was there anything in the resolution about strengthening the Navy? It was about preparing the Navy, was it not?

Secretary DANIELS. What is the difference?

The CHAIRMAN. Is it not preparing the Navy to get the battle-ships up North?

Secretary DANIELS. Mr. Chairman—

The CHAIRMAN. Even if you did not approve of getting them up North?

Secretary DANIELS. Wait until I get through. In using the ships in international matters, which the Commander in Chief has seen fit to use in international matters, it is his duty, and nobody else's, to say when those ships shall return. Now, the ships were returned as soon as the international conditions justified. In the first place, when they were returned they were taken up by the chief aide to matériel and repaired.

The CHAIRMAN. Then you have no further explanation to give of your letter?

Secretary DANIELS. I have given you a full explanation. That is all I have to say.

The CHAIRMAN. Now, Mr. Secretary, after you received the letter of August 1, 1914, what was the next document that you received from the professional advisers bearing on preparedness?

Secretary DANIELS. I do not recall.

The CHAIRMAN. Do you remember having an interview with Admiral Fiske on November 5, 1914?

Secretary DANIELS. I do not. I had interviews with Admiral Fiske pretty nearly every day.

The CHAIRMAN. And you do not remember anything that occurred at that particular interview?

Secretary DANIELS. I do not. At this time I would not recall the date, you know, because I can not recall the dates on everything that happened in 1914.

The CHAIRMAN. On page 555 of Admiral Fiske's autobiography, which is in evidence before this committee, it is said:

On the afternoon of November 5 Capt. Roy Smith, who was an unrecognized first assistant to me (I could not get a recognized first assistant), was in my office talking over with me my projected plan of getting the Navy Department on a war basis, when Cronan came into the office with the last draft of the paper I had written. Smith was already familiar with it, but the three of us talked it over for a few minutes, and then I took it into the Secretary. After the Secretary had read the letter he returned it to me, and I went back to my office. Smith and Cronan were still there, and I told them of the failure I had met. Then I put the letter on my desk, saying that I intended to speak to the Secretary about it again. I did not do so, however, thinking that it would do no good, and I finally filed it. The date the paper finally had when filed was November 9, 1914.

I have here a copy of the letter Admiral Fiske refers to in order to refresh your mind.

Secretary DANIELS. This was one of the 58 varieties he sent me, I suppose.

The CHAIRMAN. It is also one that was asked for by resolution of Congress.

Secretary DANIELS. Yes; I suppose he asked a Member of Congress to ask about confidential information.

The CHAIRMAN. Do you recognize the letter?

Secretary DANIELS. No; I do not. I do not know that I ever saw it. It ends this way, as everything else he wrote ended and began: "Subject: Improper organization of the Navy Department," etc. I was so wearied and tired of Admiral Fiske's wanting to Germanize the Navy that that did not interest me in the least.

The CHAIRMAN. You do not recognize it?

Secretary DANIELS. I do not recall it.

The CHAIRMAN. Do you think you have ever seen it before?

Secretary DANIELS. I may have seen it before. I suppose I saw scores of letters from Admiral Fiske, who wanted to Germanize the Navy. I read some of them, and after a while I quit—weariness of the flesh.

The CHAIRMAN. Now, in your letter of April 21, 1916, to the Senate, which is in evidence before this committee, you state:

Upon receipt of this resolution diligent search was made in the files of the department for the communications desired. That dated November 9, 1914, from Rear Admiral Fiske, is appended hereto.

So that at that time you had seen the letter?

Secretary DANIELS. I think you will see that when they asked for this letter that it could not be found. Now, I think you will find that Admiral Fiske—as a matter of fact, Mr. Chairman, if Admiral Fiske wanted to file this letter in the department what he ought to have done was to have said to me: “I have brought a letter here which I wish to file.” I never knew he had filed a letter of this character or any other character until long afterwards, and when it was brought out you see what I say here.

The CHAIRMAN. I want to read this to you what you said in your letter. Shall I go ahead or you?

Secretary DANIELS. Either you or I. One will read as well as the other.

The CHAIRMAN. I began, so I will continue. [Reading:]

That dated November 9, 1914, from Rear Admiral Fiske, is appended hereto. The chief clerk was unable to find it in his files, it having been withdrawn by an officer who “looked it up several times but could not find it.” However, the copy herewith transmitted was furnished the department by Admiral Fiske at my request.

This communication was not furnished me, and I did not know of its existence until long after it was written. I find upon inquiry that it was filed with the chief clerk without my knowledge that it had been written. Although Rear Admiral Fiske was in my office daily, he did not tell me that he had placed the communication on file. His article was written after the estimates for the Navy as required by law had been submitted, and I was left in ignorance of its existence, while Congress was considering legislation for the increase of the Navy and actually enacting legislation which has secured the best organization the Navy Department has enjoyed in its history. I was greatly surprised when I learned that a communication, deemed important enough now to be the subject of a Senate resolution, was not considered by its author of sufficient importance for him to present in person to me, instead of depositing it, without acquainting me of his action, in the files of the Navy Department.

In other words, Mr. Secretary, Admiral Fiske, on page 555 of his autobiography, says he showed you this letter of November 5, 1914; and yet in your letter of April 21, 1916, you say you never saw any such letter from Admiral Fiske. What explanation do you make of this contradiction?

Secretary DANIELS. I make this explanation, that I have no recollection of having seen this letter in my life. Admiral Fiske came in very day with some paper or other to show me. I never remember receiving this letter.

The CHAIRMAN. Then you did not remember seeing it when you wrote your letter of April 21, 1916?

Secretary DANIELS. What I wrote in that letter is exactly the fact.

The CHAIRMAN. There has been evidence of a number of important matters, such as the only copy of the plan of February 10 of war with Germany having been lost from the files of the department, for which you are responsible.

Secretary DANIELS. I was responsible?

The CHAIRMAN. The department for which you are responsible.

Secretary DANIELS. The department was responsible; yes.

The CHAIRMAN. The files of the department, for which you are responsible. I do not say that for the losing you are responsible.

Secretary DANIELS. Of course, for any matter mislaid in the department, no matter if mislaid by an employee—

The CHAIRMAN. I do not say you are responsible.

Secretary DANIELS. I was responsible.

The CHAIRMAN. In your letter of October 21, 1916, you say that Admiral Fiske's letter of November 9, 1914, had been withdrawn from the files and hence could not be found.

Secretary DANIELS. So I was informed.

The CHAIRMAN. When was it withdrawn?

Secretary DANIELS. I do not recall all the matters happening in 1915. They occurred almost a generation ago, considering the things that have happened since. What I stated in this letter is correct. I can not go into details from recollection now.

The CHAIRMAN. I think there was considerable attention called to the matter at that time. Do you know who withdrew the letter?

Secretary DANIELS. I do not recall.

The CHAIRMAN. Of what happened to it?

Secretary DANIELS. I do not recall.

The CHAIRMAN. Or when it was returned?

Secretary DANIELS. I do not recall anything at all about it except what I stated in the letter.

The CHAIRMAN. Now, I will read to you, Mr. Secretary. two letters from Capt. Sypher to Admiral Fiske, so that you may refresh your memory. The first was October 19, 1917.

Secretary DANIELS. Were those letters ever sent to me?

The CHAIRMAN. No; they were not.

Secretary DANIELS. Did I ever see them?

The CHAIRMAN. Not that I know of. They are letters from Capt. Sypher to Admiral Fiske.

Secretary DANIELS. If you are going to put into the record all of Admiral Fiske's correspondence you will have to get a good many printing presses.

The CHAIRMAN (reading):

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, October 19, 1917.

MY DEAR ADMIRAL: Upon meeting Murfin a few days ago he asked if I would have any objection to writing to you my recollection of the way a letter of yours came to be abstracted from the department files about two years ago, when you were aid for Operations and I was in the Division of Material.

I am very glad to give you what information I have. I had thought of writing to you at the time the absence of the letter was discovered, but as I was in China then and did not hear of the affair until it was all over, anything I could have said would have been several months old before it reached you.

I rather imagined also that the investigation had developed more than was published and that you had all the facts.

However, in spite of the time that has elapsed, my memory is very clear on the subject.

I was, as you know, the senior assistant to the aid for material, who was Capt. Winterhalter. Some time before his detachment he returned to his office from some other part of the department and sent for me to come in. He stated that you had written some kind of a letter reporting to the Secretary that the Navy was not in a state of preparedness for war, and he directed me to obtain him a copy of it.

I got the idea, and I think he had it, too, that the letter in some way reflected upon the condition of the material end of the Navy, which idea, as you know, was erroneous.

The knowledge of what to look for being somewhat vague, I went myself across the corridors to the file room and told Mr. Cassin there what I wanted. It took some search to find it, as I could give no very definite information as to either the subject or the date.

I returned to the file room, and later Mr. Cassin produced your letter. It was much shorter than Madison's paper, not more than two sheets of thin paper.

I glanced at it sufficiently to note that it did not refer to matériel, and handed it to Capt. Winterhalter, with a remark to that effect.

He read it, refolded it, and put it in his pocket, which is the last I saw of it.

Some time later Mr. Cassin asked to have the letter returned to the files. I asked Capt. Winterhalter for it, and he gave me permission to search his desk to see if I could find it.

I found the Madison paper, which Mr. Cassin said he did not need, as he had another copy, but I could not find your letter.

Several times later inquiries were received from the file room for the letter, but Capt. Winterhalter could not remember what he had done with it, although he suggested that he had probably left it at the General Board.

Just before he was detached, and while he was turning things over to me, I spoke of it again, and asked if he would keep a lookout for it, while packing his things at home, but he stated that he could not find it.

I am positive that it was not left in the office, for after I took charge I cleared up and sent to files or elsewhere a considerable accumulation of papers, and I kept that particular one in mind, as I was a little annoyed at having taken it and not being able to put it back.

When I was chief of staff to Admiral Winterhalter on the China station, and read in the papers that the Secretary had reported to the Naval Committee that the officer who had taken the letter had misplaced it, and had therefore been unable to return it, I reminded the admiral of the incident, but neither of us made any comment.

I have no doubt that the main facts in the above came out in the investigation, but I am glad to be able to fill in the details if they are of interest to you.

I hope you are keeping well and in your customary good spirits. It must be very gratifying to see how time has proved so many of your contentions.

Sincerely, yours,

J. H. SYPHER.

Then, the letter of October 27, 1917. [Reading:]

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, October 27, 1917.

MY DEAR ADMIRAL: I have just been to the file room to find out if there is any record of your letter being charged to me; and if so, when.

I saw Mr. Cassin, who remembered my getting the letter, but he surprised me by saying that it had subsequently turned up and was now in the files.

I asked to see it, and at once recognized it as the letter I had handed to Admiral Winterhalter, and as I read it I recalled it still more.

Mr. Cassin was apparently somewhat reluctant to talk on the subject, and could give me no information other than that he remembered my getting the letter, and that some time after the search had been made the letter had "turned up." I noted, however, that it had a receiving stamp on it dated "September 13, 1916." As the letter itself was now on file, there was no "replacement slip" to show when or by whom it had been taken out.

On the first page of the printed paper you inclosed and which I return herewith, the chief clerk is quoted as referring to the officer who had withdrawn the letter, so I went to the chief clerk to find out if I were the officer who was meant.

Mr. Curtis was absent in California, but his assistant, Mr. Moses, told me that it was I who was meant by that statement. I asked how he knew, and he said that when they were looking for the letter it was found to be charged to me on the replacement slip. This was a second confirmation—Mr. Cassin being the first—of my own recollection of the identity of the letter I handed to Capt. Winterhalter. I am equally certain that he placed it in his pocket after reading it.

As to the date when this occurred, I can only make an approximation. It was still in my mind as "unfinished business" when Admiral Winterhalter left

the department early in May, 1915, although it had occurred some time before that. I should say that I got the letter two or three months before he left, or some time about the latter part of February.

He was detached May 15, but I think was not at the department for several days preceding that date.

I have to rectify the statement in my previous letter to you wherein I said that your letter was so much shorter than the Madison paper that I remembered it as being only a couple of pages long. Upon seeing it and recognizing it just now I say that it is actually four pages.

I have made inquiry as to when Cronan may be expected, and it appears that while there is a slight chance of his coming on a transport due at San Francisco the last part of this month, the probabilities are that he will come in his own ship so as to arrive about the middle of December.

I shall endeavor to keep in touch with his ship's movements and will let you know if there is any change.

Please give my kindest regards to Mr. Fiske and your daughter, in which I am joined by Mrs. Sypher, and assuring you that I am always glad to be of any service you may require, I am,

Very sincerely, yours,

J. H. SYPHER.

Both of these letters Admiral Fiske has certified are true copies of letters to him. I will also put the letter of November 9 referred to in the record, but I will not read it now. I would like to have that in at the present time.

(The letter referred to is here printed in the record, as follows:)

NAVY DEPARTMENT,
Washington, November 9, 1914.

From: Aid for Operations.

To: Secretary of the Navy.

Subject: The Navy's unpreparedness for war.

1. I beg leave, respectfully but urgently, to request the attention of the Secretary to the fact that the United States Navy is unprepared for war.

2. It is true that the United States does not expect to get into war in the near future and is not preparing for war. It is true that nothing could be more unwise than for the country or the Navy itself to become nervous about the condition of war into which most of the civilized world has been plunged. It is true that there is no cause for excitement, and it is also true that even the most timid person can give no specific reason for anticipating war with any given country, at any given time.

3. It is also true, however, that the mere absence of actual certainty of coming war is no reason for neglecting preparation. Some persons assume that a disposition to make preparation evidences a state of alarm in the mind of the person who proposes to make preparation. Yet such an assumption is entirely illogical. Wise men and wise nations show their wisdom in no better way than by taking wise precautions against possible dangers. The prevalence of smallpox induces wise people to guard their families against it by vaccination. They do not expect to be attacked by smallpox, but, nevertheless, they think it wise to take precautions against it.

4. Because of the position which I have occupied for more than a year and a half as senior adviser to the Secretary of the Navy, it has been my duty to keep myself informed, so far as I have been able, of the condition of the various nations in relation to war, the effects of that condition upon us, the strength of our Navy compared with other navies, and the degree of probability of our being dragged into war.

5. The present condition all over the world is one of general upheaval. The state of unstable equilibrium which the great powers maintained for many years with great skill and care has been at last upset. A conflict is going on very few results of which can be foretold. One thing probably can be foretold, however. I mean that it can be foretold that the conflict will be violent and also will be long, involving other countries than those now taking part, and followed, even after the war as present outlined has been ended, by a series of more or less violent readjustments of boundaries, insular possessions, treaties, and agreements of every kind.

other countries, and periods of tension between this Government and others, periods like that preceding the Spanish War, needing only a casualty like the blowing up of the Maine to precipitate a conflict.

7. In my opinion, as your professional adviser, and in the opinion of every naval officer with whom I have talked, the United States is in danger of being drawn into war and will continue to be in danger for several years. And when I say war, I do not mean war of the kind that we had with Spain, but war with a great power, carried on in the same ruthless spirit and in the same whole-sale manner as that which pervades the fighting in Europe now. It is true that I can not specify the country with which war is most probable nor the time nor the cause. But my studies of wars in the past and my observations of conditions at the present time convince me that if this country avoids war during the next five years it will be accomplished only by a happy combination of high diplomatic skill and rare good fortune.

8. Would it be wise to base all our hopes of national safety on such a frail foundation? Would it be use to close our eyes to the dangers that confront us? Would it not be wiser to look the dangers clearly in the face and take reasonable precaution to avert them?

9. Comparing our Navy with the navies which we may have to meet in war, I find that our Navy is unprepared in three ways:

10. First, it has an insufficient number of officers and enlisted men. The number of officers can not be increased—that is, the number of suitable officers—because it takes four years to get a midshipman through the academy and several years afterwards to train him. But the number of enlisted men can be increased, and very quickly. It has been said that in time of war we could add to our enlisted personnel from the Naval Reserve and the Naval Militia. To my mind, this is a visionary notion, with no basis of fact to rest upon. We have been working to get a Naval Reserve and a Naval Militia for more than 30 years; scores of expedients have been tried, and the only result has been no Naval Reserves at all and less than 7,000 incompletely trained militia. Possibly we may do better with the Naval Reserve in the future than in the past, but only possibly, not probably. All reasonable expectation for the future is based, and must be based, on the experience of the past, and the experience of the past shows us that to place dependence on the Naval Militia and the Naval Reserve is to place dependence on hope, not reasonable expectation. The only men we can depend upon for naval work on board our ships are men who are enlisted regularly, who have been trained on board our ships, and wear the naval uniform. But even if we would expect reasonably to get a Naval Reserve in the future, the fact remains that we want enlisted men right now. To man the ships which should be used in war we need 10,000 more men.

11. The second way in which I find our Navy unprepared is in departmental organization. Our ships are well organized, and pretty well drilled; the fleets are well organized, though not very well drilled, but the department itself is neither organized nor drilled in a military way. Perhaps this is nobody's fault, and may be attributed to the fact that our Navy has never had to fight a serious enemy—certainly not in 100 years. The people of the country have naturally devoted their energy along the paths of most obvious profit, and have not been confronted with any obvious military dangers. But in my opinion there is an obvious military danger at present, and the Navy Department should be organized to meet it. The organization, which other navies and all armies of great power employ to meet this danger is known, in English, by the phrase, "general staff." In different languages, of course, the words are different; but the meaning is the same. In Great Britain it is called the "board of admiralty." This "general staff" has as its first duty preparation for war, and as its second duty, the conduct of war when war comes. In making preparation for war, the "general staff" makes war plans. These war plans are of two kinds, general and specific. The general plans are simply analyses of what should be the general conduct of the Navy in case of war; and the specific plans are plans in which the general plans are worked out in detail. Besides these general and specific plans, however, the "general staff" devises means whereby information regarding these general and specific plans shall be given to the various executive bureaus and divisions, corrected up to

date; and whereby the various executive bureaux and divisions shall always be compelled to be ready to carry the various parts of those plans into immediate effect.

12. In directing the conduct of the war the general staff, under the direction of the minister, sees to it that all information is kept up to date and supplied to the various commanders, and that all machinery for carrying out their decisions is kept in working order.

13. Our Navy Department has no machinery for doing what a general staff does. The closest approach to it is the General Board, which as part of its numerous duties, "shall devise measures and plans for the effective preparation and maintenance of the fleet for war," and "shall prepare and submit to the Secretary of the Navy plans of campaign," etc. The General Board does carry out these duties, but the plans that it makes are general and elementary. It exists entirely as an advisory board to the Secretary of the Navy. It is highly valuable; but, as its name indicates, it is only a general board. It does hardly 1 per cent of the duties that a general staff would do. Having no executive authority and no responsibility, and being called upon to do a great variety of work, it has not the time to prepare specific plans, and has no means to see that even its general plans are ever carried out. If we compare our General Board with the general staff of any other country, or with the Admiralty of Great Britain, and when we see what those general staffs have been accomplishing during the past three months, we must become convinced that unless we go on the theory that we shall always have peace we shall be whipped if we ever are brought into war with any one of the great naval powers of Europe or Asia. We shall be like the lawyer who has not prepared his case when pitted against the lawyer who has prepared his case. We shall be as the French were before the Germans in 1870.

14. The performance of the German Army during the last three months is greatest triumph of the human mind and human will that has ever been accomplished. It is not the triumph of one mind or one will, but the triumph of several million minds and several million wills, coordinated by a general staff with a degree of perfection that the world has never before seen. This pace being set, any navy not provided with a general staff is a navy not provided with the most modern improvements.

15. The third way in which I find our Navy deficient is in training. This deficiency in training is not due to lack of spirit or ability but to a combination of the two preceding causes; that is, to insufficient personnel and lack of departmental organization, to which must be added lack of small ships. I mean that because we have had not enough small ships to do work on the coasts of Haiti, San Domingo, and Mexico, because our ships have been insufficiently manned, and because the Navy Department has had no general staff which would devise and carry out a progressive system of training, lack of progressive training has resulted. When I say lack of progressive training I mean lack of training such as the Germans and other nations have. I mean lack of training that secures a high degree of skill. If we are forced into war with a navy like Germany's or England's or Japan's our training should be at least as good as theirs; or rather our skill should be. It is impossible for me or for anybody to compare exactly the skill of our Navy with the skill of other navies; but, on the theory that cause produces effect, we must admit that we have not had nearly so good a system to produce skill as other navies have. The developing of skill in the navies and armies of the other great powers is carried out with a vigor and persistency that we can not approach, and has been directed by an organized intelligence that certainly has no superior and probably no equal in any other branch of human effort.

16. The subject of the improper organization of our Navy Department was exhaustively analyzed by the Moody Board and afterwards by the Swift Board in 1909. Certain recommendations were made to remedy the evils that they found. These recommendations have not been carried out. They were, in effect, to establish a general staff, though the words general staff were not used. In my opinion, the failure to adopt those recommendations was serious, and will invite disaster if a great war comes.

B. A. FISKE.

The CHAIRMAN. Now, do those letters refresh your memory at all in this matter?

The CHAIRMAN. They have something to do with your statement, do they not, about the letters having been taken out of your files?

Secretary DANIELS. I think he says they were taken out of the files, and I think he says they were returned to the files, but I never put them in the files, I never ordered them in the files, and I never took them out of the files.

The CHAIRMAN. You stated:

This communication was not furnished me and I did not know of its existence until long after it was written. I find upon inquiry that it was filed with the chief clerk, without my knowledge that it had been written. Although Rear Admiral Fiske was in my office daily, he did not tell me that he had placed the communication on file. His article was written after the estimates for the Navy, as required by law, had been submitted, and I was left in ignorance of its existence, while Congress was considering legislation for the increase of the Navy and actually enacting legislation which has secured the best organization the Navy Department has enjoyed in its history. I was greatly surprised when I learned that a communication, deemed important enough now to be the subject of a Senate resolution, was not considered by its author of sufficient importance for him to present in person to me, instead of depositing it, without acquainting me of his action in the files of the Navy Department.

Secretary DANIELS. Of course, Mr. Chairman, it may be very well to put in all of this ancient history of grievances and grudges and conditions, but I do not see what it has got to do with the question of the Navy Department's conduct of the war.

The CHAIRMAN. I think it has to do with the question of preparedness in the Navy, Mr. Secretary, and as to whether you were directly warned by your responsible assistants.

Secretary DANIELS. I have no objection to all the grievances and grudges of officers I have had to dismiss from important duty because they failed going into the record.

The CHAIRMAN. Do you not think, Mr. Secretary, in the light of the General Board's letter of warning to you, dated August 1, 1914, and of Admiral Fiske's letter to you on unpreparedness in the Navy of November 9, 1914, that you had early advice from your professional advisers of the need of preparing in case of war with the Central Powers?

Secretary DANIELS. And if you will read my estimates of October 15, 1914, you will see we were making provision.

The CHAIRMAN. And you think that you received adequate warning, do you not, from your professional advisers?

Secretary DANIELS. I did not need any warning.

The CHAIRMAN. No; but you received it, did you not?

Secretary DANIELS. I do not have any recollection of when I received those letters.

The CHAIRMAN. But you would not say you did not receive them?

Secretary DANIELS. If Admiral Fiske had said that he had sent 700 letters about reorganizing the Navy, I would not deny it. He sent them in in abundance. He brought them in and sent them in.

The CHAIRMAN. But this letter is an important letter, is it not?

Secretary DANIELS. Which one—from Fiske?

The CHAIRMAN. Yes.

Secretary DANIELS. I do not regard it as any more important than his other 58 varieties.

The CHAIRMAN. It was a letter dealing directly with preparedness sent to you by the Chief of Naval Operations.

Secretary DANIELS. Not the chief.

The CHAIRMAN. By aid to Naval Operations, who was the head of the department?

Secretary DANIELS. At that time he was chiefly directing propaganda for reorganization and making trouble, and therefore I gave very little attention to his demands to reorganize the Navy.

The CHAIRMAN. The committee will stand adjourned until 10 o'clock to-morrow morning.

(Thereupon, at 5 o'clock p. m., the committee adjourned until to-morrow, Wednesday, May 26, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

WEDNESDAY, MAY 26, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m. in room 235, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Keyes, and Pittman.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

The CHAIRMAN. Mr. Secretary, will you proceed?

Secretary DANIELS. Mr. Chairman, some days ago when we were discussing the North Sea barrage, I said that I would put a map in the hearing with an explanation. I have it here with me.

(The matter referred to by Secretary Daniels, together with the map referred to, is here printed in the record, as follows:)

NORTHERN BARRAGE.

The northern barrage was by far the greatest mine field that was ever planted. There were not in the whole history of mine warfare previous to the great war as many mines used in the world as were employed in this effective scheme to hem in the German submarine.

The United States planted 56,611 mines and the British 13,652, making a total of 70,263, of which the American portion constituted 80.5 per cent and the British 19.5 per cent.

In longitude the field extended through a distance of 230 miles; its average width was 20 miles; the total area of the barrage 4,600 square miles.

As we were not permitted by international law to mine closer to the neutral Norwegian coast than the 3-mile limit, a thoroughfare of that width for our enemies would have been left had not the Norwegian Government finally protected her neutrality by mining around the island of Udsire using for this purpose 700 mines. This completely closed the North Sea from the Norwegian coast westward to within 10 miles of the Orkney Islands. This gap of 10 miles was left as a passageway for our own vessels and the passage of enemy submarines was to be prevented by a close patrol.

In order to lay the mines it was necessary for the United States to construct a fleet of special mine layers, some of which were capable of carrying as many as 860 mines. Ten of these mine layers were engaged in constructing the northern barrage and made 13 separate trips or expeditions, planting on each trip an average of 4,350 mines in approximately four hours' time.

All of the mines planted by the American Navy were manufactured in the United States, transported to Scotland by a special fleet of 26 mine carriers, and were then assembled at the American mine bases before being loaded into the mine layers.

In order to prevent enemy submarines diving beneath the barrage and thus gaining access to the Atlantic Ocean, it was necessary to plant mines at the

greatest depth to which it was believed submarines would dive. This was accomplished by laying mines at four different depths, 45 feet, 80 feet, 160 feet, and 240 feet.

By means of a highly ingenious contrivance which had been developed a few weeks after the United States entered the war, it was not necessary for a vessel to actually strike the mine in order to explode it. Therefore, by laying mines at the above levels they served to form a complete wall extending to a depth of 240 feet thus making it impossible for a submarine to pass through the barrage at any depth between these limits without encountering the danger of being destroyed by a mine.

Since an enemy knowing the barrage to exist and being forced to cross it would prefer to risk such a passage on the surface where the chances to save themselves would be greatest, the mines, at the depths of 45 and 80 feet were sown more thickly than those at the lower level. This increased density is shown graphically in the accompanying chart.

Secretary DANIELS. A day or two ago you asked me a question about the number of ships, how many of those of the three-year program did we use during the war?

The CHAIRMAN. Yes.

Secretary DANIELS. Here is a statement containing a table which gives that information as to destroyers and other antisubmarine craft that we put into commission during the war. The table is as follows:

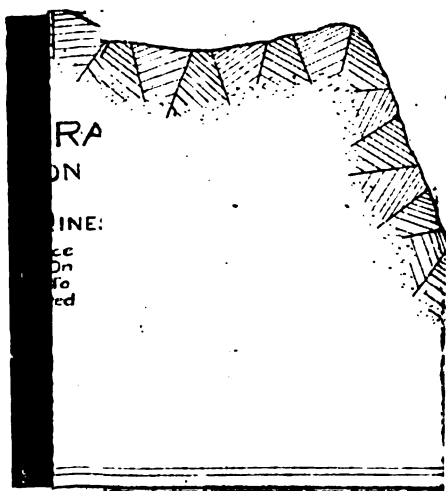
Authorized.	Prior to 3-year program.	3-year program.	Subsequent to 3-year program.	Totals.
Destroyers.....	6	26	12	44
Submarines.....	28	6	4	38
Eagle boats.....			3	3
Submarine chasers.....			408	408
Mine sweepers.....			17	17
Grand total.....				519

Of the submarine chasers 100 were delivered to and commissioned by the French. The first 20 destroyers of the 3-year program authorized to be contracted for were advertised the day the bill passed and contracted for in the fall of 1916. The average prewar time of completing destroyers from time of contract was 24.8 months. Had this held during the war we would have completed none of the 3-year program destroyers and but 6 new destroyers in all during the war period instead of 44. Production was increasing rapidly at the time of the armistice, having reached the rate of about 10 a month. For 1919 the deliveries anticipated prior to the armistice were 12 to 13 per month. After the armistice overtime was stopped and work slowed to an economical rate, but even so the deliveries during the year averaged 9 per month.

I wish to add to that a statement published in the Fore River Log, by the Bethlehem Shipbuilding Co., headed "Last of 71 destroyers delivered to Charlestown Navy Yard," in which is quoted a statement that I made at Squantum when they began the work:

We have the medicine for the Kaiser. You gentlemen are the druggists—you are compounding the medicine. You must work every minute until we have the medicine prepared. Hand these destroyers over to the Navy as soon as you can, and they will finish the job.

This article is a statement of President Powell of the work done at Quincy and Squantum, where most of our destroyers were built. That answers the question you asked me the other day.



On Monday, May 17, the destroyer *Osborne*, the last hull to be launched at Squantum Works and the last of 71 destroyers which have been built by the Fore River Plant, was delivered to the United States Navy Yard at Charlestown, Mass. The Fore River plant is the only yard in the country to deliver every boat of its contract, amounting to over \$100,000,000.

The beginning of the building program started on June 18, 1917, with the laying of the keel of the destroyer *Little*, and from that time on previous records began to be broken. Five keels were laid in one day; two destroyers passed their tests the same day, and were turned over to the Government within 32 hours of each other; four boats were launched in 25 hours, and during that time another destroyer was delivered to the Government. One riveting crew in nine hours drove 2,805 three-fourth-inch flush rivets in an oil-tight bulkhead subject to an air test. That is driving rivets at the rate of more than five per minute.

Long before the hulls were ready for trial trips, it was found necessary to organize regular trial-trip crew. Men who were the best mechanics in the yard were selected to do the "trick," and they showed the world that Fore River could build destroyers fast and build them well. The 36 destroyers built at the Quincy Works went out on 160 trial trips; 20 of which were regular standardization, full-power runs off Rockland; 44 were official trips; and 90 were builders' trials. Many of these trials were made under the most trying conditions, both extreme heat and cold. One remarkable thing was the trial of two destroyers in one day by the same crew, for on August 14, 1918, two boats left Quincy the same day on trial trips.

Production kept growing faster and faster during the war, and on the 4th of May, 1918, the keel of the *Mahan* was laid with the intention of smashing the record time of building a destroyer, which at that time was 26 months. On the 4th of August the *Mahan* was launched, and on the 24th of October it was delivered to the Navy in the record time of 174 days.

On Tuesday, September 23, 1919, the *Turner*, the thirty-sixth and last destroyer of the Quincy Works contract, was delivered to the Navy Department. These 36 destroyers were built and delivered in the remarkable period of 27 months and 5 days, which is all the more wonderful when we realize that the time taken to build one destroyer has been usually 26 months.

The following Fore River destroyers built on this contract saw service abroad: *Little*, *Kimberly*, *Sigourney*, *Gregory*, *Stringham*, *Dyer*, *Colhoun*, *Bell*, *Stribling*, *Murray*, *Israel*, *Luce*, *Mauzy*, and *Lansdale*.

Vice President J. W. Powell, responding to the call for more destroyers, planned the Squantum Works to build 35 destroyers, and he also established a turbine shop at Buffalo, N. Y., and a boiler shop at Providence, R. I. Other independent concerns enlarged their plants to care for the additional contracts for outfitting these boats. Works were started at Squantum on October 7, 1917, and hull fabrication was begun on January 14, 1918. The first keel was laid on April 20, 1919. On July 18 the first destroyer at Squantum, the *Delphy*, was launched. The organization of a working force at this yard was done in a wonderful manner. The best men from the Quincy yard were sent to Squantum, and there was developed from an army of clerks, salesmen, and other nonmechanics a crew of workmen who at once entered into the spirit of production. On September 9, 1919, the keel of the destroyer *Reid* was laid, and this boat was completely built and delivered in the unparalleled time of 45½ working days. This world's record probably received more publicity than any other shipbuilding feat ever performed.

The trial-trip crew at Squantum made some surprising records, the best of which was the trial of the *Moody* on September 19, 1919. Starting out at 7.06 a. m., every test, including the four-hour run, was finished successfully, and at 1.29 p. m. the ship was docked.

Already the turbine plant at Buffalo, N. Y., and the boiler and condenser plant at Providence, R. I., have been returned to the Government, and the

\$10,000,000 destroyer plant at Squantum will be turned over to the Government on June 1, 1920.

The 25,810 employees of the Fore River and Squantum Works may look back with pride that they had a part in making the Fore River plant the first to respond and the first to deliver destroyers to the United States. The Secretary of the Navy, in speaking to the men of the plant during the war, said: "We have the medicine for the Kaiser. You gentlemen are the druggists—you are compounding the medicine. You must work every minute until we have the medicine prepared. Hand these destroyers over to the Navy as soon as you can and they will finish the job." We did the job for him.

The CHAIRMAN. Who prepared this statement about the destroyers and other boats, submarine chasers, and mine sweepers, etc.?

Secretary DANIELS. This was prepared in my office.

The CHAIRMAN. It is authoritative?

Secretary DANIELS. It is authoritative. The figures were obtained from the Bureau of Construction and Repair.

The CHAIRMAN. Of the ships that were provided for in the three-year program, there were no battleships that were completed and used in the war, were there?

Secretary DANIELS. As soon as the war came on the need for smaller craft was so great that the General Board and the Chief of Operations and our allied forces abroad recommended that we do not press the building of the big ships, but press the building of small ships.

The CHAIRMAN. And quite properly.

Secretary DANIELS. Quite properly.

The CHAIRMAN. And there were no battleships completed that were laid down, then, during the war?

Secretary DANIELS. None except those that had gone so far that we ought to have finished them.

The CHAIRMAN. None were completed for use in the war?

Secretary DANIELS. I think that none of those authorized in 1916 were completed; no.

The CHAIRMAN. No?

Secretary DANIELS. No.

The CHAIRMAN. And no battle cruisers?

Secretary DANIELS. No.

The CHAIRMAN. And no other cruisers?

Secretary DANIELS. At the request and suggestion of all the authorities, we—

The CHAIRMAN. You stated here that the 26 destroyers that were provided for in the three-year program were finished during the war?

Secretary DANIELS. That statement is correct.

The CHAIRMAN. How many of these 26 took part in the war in the war zone?

Secretary DANIELS. I should have to get you a statement of that. Mr. Chairman. I gave it to you the other day in the hearings. I will get you that statement.

The CHAIRMAN. I think it was eight, was it not?

Secretary DANIELS. I do not recall the number. It is in my statement, which I can refer to and give you.

The CHAIRMAN. Will you give me that information and put it at this place in the record?

Secretary DANIELS. Yes, sir.

advance of the three-year program, were the *Shaw, Caldwell, Craven, Connor, Stockton, and Manley*.

The 26 destroyers completed during the war period, which were part of the three-year period, were the following: *Wickes, Philip, Woolsey, Erans, Little, Kimberly, Sigourney, Gregory, Stringham, Dyer, Colhoun, Stevens, McKee, Fairfax, Taylor, Bell, Stribling, Murray, Israel, Luce, Maury, Lansdale, Mahan, Schley, Champlin, and Robinson*.

The 12 destroyers completed during the war period, from special appropriations, were the following: *Kathbourne, Talbot, Waters, Dent, Dorsey, Lea, Lamberton, Radford, Montgomery, Breese, Boggs, and Ward*.

The 28 submarines completed during the war period, which were authorized prior to the three-year program, were the following: *L-5, L-6, L-7, L-8, M-1, N-1, N-2, N-3, N-4, N-5, N-6, N-7, O-1, O-2, O-3, O-4, O-5, O-6, O-7, O-8, O-9, O-10, O-11, O-12, O-13, O-14, O-15, and O-16*.

The six submarines completed during the war period, which were a part of the three-year program, were the following: *R-15, R-16, R-17, R-18, R-19, and R-20*.

The four submarines completed during the war period from special appropriations subsequent to the three-year program were the following: *H-4, H-5, H-6, and H-7*.

Information as to the war-zone activities of all of the above is given in the table in my testimony of the — day of May, 1920.

The CHAIRMAN. And of submarines there were six, according to this statement, provided in the three-year program, that were finished during the war.

Secretary DANIELS. That statement is correct.

The CHAIRMAN. Were these submarines used in the war zone during the war?

Secretary DANIELS. I will give you that statement.

The CHAIRMAN. Will you also give me that statement at this point in the record?

Secretary DANIELS. I think it is already in Admiral McKean's statement, but I will look it up.

(The answer to the above question will be found in the statement inserted above.)

The CHAIRMAN. I see you also give the figures of vessels of this sort that were provided for subsequent to the three-year program?

Secretary DANIEL. Yes; very properly, because they took the place of the large cruisers that we suspended work on.

The CHAIRMAN. Can you give the total expenditures on destroyers from the beginning of the war on?

Secretary DANIELS. I will get that.

The CHAIRMAN. And the figures also on submarines and Eagle boats?

Secretary DANIELS. I will furnish it.

The CHAIRMAN. To be placed at this point in the record?

Secretary DANIELS. I will furnish all that; yes, sir.

(The following statement was subsequently submitted by Secretary Daniels:)

The expenditures on 331 destroyers built, or building at the beginning of the war and undertaken after the beginning of the war over the period from April 1, 1917, to April 1, 1920, have been, in round figures, \$382,000,000.

Similar expenditures on 156 submarines are \$90,000,000.

The similar expenditures on 60 Eagle boats completed and 52 begun but canceled after the armistice were \$40,000,000.

The CHAIRMAN. You said that three Eagle boats were in commission?

Secretary DANIELS. Yes.

The CHAIRMAN. Did these Eagle boats ever get as far as the Atlantic?

Secretary DANIELS. I think Admiral McKean gave you that, but I will get that information. That was a matter handled by Operations. I will get you the information.

The CHAIRMAN. At any rate, they did not get to Europe, did they?

Secretary DANIELS. I will get you the information as to that.

(The following statement was subsequently furnished by Secretary Daniels:)

The three Eagle boats above mentioned reached Europe May 2, 1919. They served in the White Sea, the Black Sea, and the Mediterranean, and two returned to the United States February 15, 1920. The Eagle No. 1 is now in the Mediterranean.

The CHAIRMAN. Now, Mr. Secretary, in his testimony Admiral Badger, on page 2700, spoke of the General Board's letter to the Secretary of the Navy of November 17, 1914. This was the letter that had to do with the recommendation of a personnel of 19,600, which was not given to Congress in its initial form [reading]:

39. The General Board can not too strongly urge upon the department the necessity of using its best endeavors to carry out the repeated recommendations of the General Board made from year to year, to provide the fleet with a personnel, active list and trained reserve, equal to the manning of the fleet for war.

40. In the opinion of the General Board this is a matter of even more serious import than that of construction, for it can not be too often repeated that ships without a trained personnel to man and fight them are useless for the purposes of war. And the training needed for the purpose is long and arduous, and can not be done after the outbreak of war. This must have been provided for long previous to the beginning of hostilities; and any ship of the fleet found at the outbreak of war without provision having been made for its manning by officers and men trained for service can be counted as only a useless mass of steel, whose existence leads only to a false sense of security.

Admiral Badger states that this was not sent to Congress, and that Congress was not informed.

Secretary DANIELS. You mean what you have read was not sent to Congress?

The CHAIRMAN. The recommendation of 19,600.

Secretary DANIELS. But all that you have read was sent to Congress. If you will look in my annual report, in Appendix A, the report for 1914, you will find everything you have read was in the report that went to Congress.

The CHAIRMAN. I think it was the figures, 19,600, were not sent.

Secretary DANIELS. Yes; that is correct.

You will find what you have read on page 68 of the annual report of the Secretary of the Navy for 1914, Appendix A. All you have read is in that report, which was published at that time.

The CHAIRMAN. On page 2702 the following appears:

The CHAIRMAN. And the report, with the numerical increase in it, was not published, was it?

Admiral BADGER. It was never sent in.

That refers to the numerical increase suggested?

Secretary DANIELS. I think that is what he referred to.

The CHAIRMAN. 1914.

Secretary DANIELS. What was the question you asked me? Please read the question.

The stenographer read the question as follows:

The CHAIRMAN. Can you explain to the committee why this vital recommendation for the 19,600 increase was not given to Congress?

The CHAIRMAN. You have already taken up that matter in your statement, and I would like to have you state.

Secretary DANIELS. It was not a recommendation at all. It never came to me as a recommendation, but I will give you all the facts in connection with it.

The CHAIRMAN. You have already given them in your statement, so give them as briefly as possible.

Secretary DANIELS. I am going to give them very briefly, in five minutes.

The CHAIRMAN. Very well.

Secretary DANIELS. Mr. Chairman, you have heard retailed here gossip as to some communication I held with the General Board of the Navy in 1914, and I think it was Admiral Fiske who undertook to convey the impression that I had directed the General Board to cut out certain recommendations as to increase of personnel. Such an impression would be injustice to the General Board as well as to me. Not once, but at least twice, or probably three times, I have suggested to the General Board the omission of certain specific recommendations in their reports which would be printed as appendices in my annual reports. In each case I suggested that those particular recommendations not to be published should be contained in communications for the study of the Secretary of the Navy and of Operations. It is manifestly proper that certain of their recommendations should be confidential. Most of them are. My relations with the General Board have been such as to justify the utmost free and confidential exchange of views. When an ex-officio member of the General Board so far forgets his sense of the proprieties as to gossip about those communications he publishes his unfitness for membership on that board and loses his usefulness.

In the latter part of 1914 the Bureau of Navigation had succeeded for the first time in years in securing the enlistment authorized by law. My opinion was that the big immediate and difficult duty was to concentrate on getting appropriations for capital and other fighting ships and on teaching and training the more than 50,000 men then enlisted, and in keeping that strength up to that number authorized before I should ask an increase. I am frank to say that at that time I did not believe the spirit of the country and Congress was in a mood to vote the money that would be required for a large increase and also the money for two dreadnaughts. An increase of 20,000 men, as I am informed by Supplies and Accounts, would necessitate an additional appropriation of \$16,000,000.

I know it would be extremely difficult to secure the money for large increase in personnel and for the new ships the General Board felt necessary and the number for which I had estimated. As obtaining

money for new dreadnaughts was paramount, and as Navigation reported we had sufficient men to man the best ships, I did not ask the money for the increase of men, but stressed the fight—and it was a hard one—to secure enough money for the new dreadnaughts and other fighting ships. The recommendation of the General Board as forwarded to me and published as an appendix to my report (see Appendix A, p. 68, Report of the Secretary of the Navy, 1914) was in these words:

43. In view of all that has been herein set forth, the General Board recommends:

(a) That legislation be asked for providing an active personnel, officers and enlisted force, capable of keeping in full commission all battleships under 15 years of age from date of authorization, all destroyers and submarines under 12 years of age from authorization, half of the cruisers and all gunboats and all the necessary auxiliaries that go with the active fleet; and of furnishing nucleus crews for all ships in the Navy that would be used in time of war, and the necessary men for the training and other shore stations.

(b) That the general policy be adopted of expanding the active personnel with the expansion of the fleet in the proportions indicated in (a).

(c) That immediate steps be taken to form a national naval reserve of trained officers and men, and that this work be pushed until this reserve, in connection with the Naval Militia, has reached the point where, combined with the active list, it will be possible to fully man the entire fleet with war complements and furnish 10 per cent additional for casualties.

(d) That the Naval Militia be expanded in number and that the department encourage the continuance and improvement of its training to the end that it may still more efficiently serve to reinforce the regular service at need.

GEORGE DEWEY.

I suggested to the board that it stress the building program and lay down the general principles of personnel omitting any particular number of increase in that year. The Chief of the Bureau of Navigation recommended as complements for the ships enough men in his judgment—and that was his duty prescribed by law—for manning the ships of the Navy in accordance with the recommendation of the General Board. The board never then or since intimated to me that my suggestion was not entirely proper, and I published the report as it was forwarded to me. It was never until I had refused to approve Admiral Fiske's plea to reorganize the Navy Department on plans "made in Germany," patterned after the Von Tirpitz method, and had not yielded to his repeated solicitations to make him commander in chief of the Atlantic Fleet, that this comparatively unimportant confidential talk with the General Board was given currency and an airing in Congress long before the United States entered the World War. Inasmuch as I recommended an increase in 1915 and Congress gave the large increase in August, 1916, larger than the Bureau of Navigation could enlist before we entered the war, the condition of a few thousand men, more or less, in 1914, would have exerted no perceptible influence in a great war in which we enlisted and enrolled more than 500,000 men in the Navy. To hark back to this warmed-over criticism serves only to show that this investigation, limited by the resolution to the part the Navy played in the World War, is regarded by some as merely an opportunity of airing ancient grievances without contributing anything of value to lessons taught by the World War.

The CHAIRMAN. Do I understand that you are objecting to the questions of the committee on this matter?

Secretary DANIELS. Not at all.

The CHAIRMAN. It is not the committee that you are referring to?

Secretary DANIELS. No. Let me read it again: To hark back to this warmed-over criticism serves only to show that this investigation, limited by the resolution to the part the Navy played in the World War, is regarded by some as merely an opportunity of airing ancient grievances without contributing anything of value to lessons taught by the World War.

The CHAIRMAN. But not so regarded by the committee.

Secretary DANIELS. Not the committee.

The CHAIRMAN. Is it not the committee that is harking back to these questions?

Secretary DANIELS. No; I think it is the witnesses who have come before you. I do not think the committee knows anything about these ancient grievances.

The CHAIRMAN. But the committee asked the questions.

Secretary DANIELS. You will observe that when these witnesses read grievances before the committee, they generally made prepared statements, and brought this out without any questions from the committee.

The CHAIRMAN. That has been done by all the witnesses throughout the hearing practically.

Secretary DANIELS. I am referring to those who have ancient grievances, and are very mad because I did not give them the high signments they wished, or removed them from places which they are not filling well. I say this is regarded by some as merely an opportunity of airing ancient grievances without contributing anything of value to lessons taught by the World War.

I had the fight of my life, Mr. Chairman—I do not think you were a member of the Senate in 1914.

The CHAIRMAN. I was not.

Secretary DANIELS. Every man who was in Congress in 1914 knows very well the difficulty of securing appropriations for a larger Navy. I had the fight of my life in 1914, working with the majority of the Naval Affairs Committee, led by Chairman Padgett, to secure an appropriation for two battleships in that bill, as the following extract from the Congressional Record, February 8, 1915 (p. 3438) shows:

Mr. Witherspoon moves to recommit H. R. 20975 to the Committee on Naval Affairs with instructions to forthwith report the bill back to the House with an amendment striking out the word "two" where it occurs in line 4, page 64, and insert the word "one" in place thereof.

The vote stood: Yeas, 149; Nays, 165. Representative Witherspoon, backed by nearly half the Members of the House, made a valiant fight to prevent my recommendations, incorporated in the bill by the Naval Affairs Committee, for the two battleships being voted. His motion was to build only one dreadnaught and a change of eight votes would have reduced the building program in that bill to one dreadnaught instead of the two secured. An analysis of the vote shows that both the leaders of the two parties—Mr. Mann, Republican, and Mr. Underwood, Democrat—was cast for recommending the bill with instructions to substitute "one" for "two." This is significant as showing the public attitude and the attitude in Congress at that time, and no discussion now of what might have been

done two or three years before we entered the war has any value without the sidelight of public opinion as represented by a large element in Congress in opposing the two-battleship construction urged by the Secretary of the Navy and approved by the President. I believed then, and the General Board agreed, that in comparison with securing the money for two dreadnaughts everything else was less important. Besides, I recommended in 1915 and actually secured in 1916 all the men needed for the new ships and secured them before the ships were even launched; and never during the World War, with an increase from 342 to over 2,000 vessels to be manned, was a ship ready for service that the department did not have the men ready to man it. So much for this backstairs gossip about 1914 and like ancient history.

The CHAIRMAN. Mr. Secretary, you stated that the General Board did not make this report to you, including the 19,600 increase?

Secretary DANIELS. I have published their report.

The CHAIRMAN. They did, however, prepare a letter giving facts and figures, did they not, and this letter was shown to you—read to you at a meeting of the board?

Secretary DANIELS. No. Admiral Fiske made me a statement, which I do not think had been passed by the board, or it may have been, containing those figures. Then I went over to the General Board and had a discussion with them and suggested that in view of the very greatly divided sentiment in Congress and the very great difficulty we were going to have to get any large building program that I thought it was wiser that we should strain every point to secure two dreadnaughts, because I knew of the fight coming in the House to secure those two dreadnaughts, that it was going to be very difficult, which, as the result proved, it was, and I suggested to them that in their report which they should send to me they should state what ships should be in full commission, what ships should be in reserve, and that then the Bureau of Navigation would provide the personnel for such ships.

The CHAIRMAN. Let me read to you the testimony of Admiral Badger, found on page 2705:

Admiral BADGER. The report never left the board containing that 19,600. It never left the board at all and never was returned.

Secretary DANIELS. That is what I thought.

The CHAIRMAN. Let me read further:

The CHAIRMAN. But whether it went to him officially or not, it went to him?

Admiral BADGER. He knew it; yes.

The CHAIRMAN. After the Secretary declined to accept the report of the General Board for that numerical increase of 19,600 men, did the board, before sending the deleted report back to the Secretary, send to the Secretary a letter in regard to the needs of the personnel, giving more details than those contained in the printed report? That report was the letter to which you have referred?

Admiral BADGER. No; that letter was never sent—no letter of that kind was sent to the Secretary.

The CHAIRMAN. Was not this letter read to the Secretary at a meeting of the General Board?

Admiral BADGER. It was; yes. That is what I have stated.

The CHAIRMAN. Was any action taken by the Secretary on this letter, or was it simply filed?

Admiral BADGER. Filed.

The CHAIRMAN. With the General Board?

Admiral BADGER. Filed with the General Board, to be produced whenever, in case—

Admiral BADGER. I can not tell you, but I think so.

Secretary DANIELS. I have stated that I went to the General Board meetings. ✓

The CHAIRMAN. So you knew about the recommendations of the 19,600 increase?

Secretary DANIELS. Certainly. I stated so before the House committee three years ago.

The CHAIRMAN. And at that time, at your suggestion, that was left out in their report?

Secretary DANIELS. It was, and for the reason I have given you, because—

The CHAIRMAN. Yes.

Secretary DANIELS. Let me finish.

The CHAIRMAN. Certainly.

Secretary DANIELS. Because I knew we had a tremendously hard fight on our hands. The Congress in 1912 had only given us one dreadnaught, and I knew we had a tremendously hard fight to get two, which I regarded as the most important thing.

The CHAIRMAN. Did you consider at that time that we had an adequate personnel for the Navy?

Secretary DANIELS. I took up the recommendations of the General Board as to what ships should be in full commission, and I sent them a letter. I will quote the letter I wrote to them. I wrote a letter which appears in my annual report of 1914, Appendix B, on page 70:

WASHINGTON, November 18, 1914.

From: The Secretary of the Navy.

To: The Bureau of Navigation, Navy Department.

Subject: Increase of the Navy, building program and personnel, 1916.

Reference: General Board's letter No. 420-2 of November 17, 1914.

In its report on personnel, in section 43, paragraph (a), the General Board makes the following recommendation:

"That legislation be asked for providing an active personnel, officers and enlisted force, capable of keeping in full commission all battleships under 15 years of age, from date of authorization, all destroyers and submarines under 12 years of age from authorization, half of the cruisers and all gunboats, and all the necessary auxiliaries that go with the active fleet, and of furnishing nucleus crews for all ships in the Navy that would be used in time of war, and the necessary men for the training and other shore stations."

The department desires a report from the bureau as to personnel available for carrying out the recommendations of the General Board above quoted, together with such comment and recommendation on the subject as the bureau sees fit to make.

JOSEPHUS DANIELS.

That was the specific recommendation as to the use of men by the General Board.

Now, I wrote to the Chief of the Bureau of Navigation as follows:

The department desires a report from the bureau as to the personnel available for carrying out the recommendations of the General Board above quoted, together with such comment and recommendation on the subject as the bureau sees fit to make.

On pages 70, 71, 72, 73, and 74 the Chief of the Bureau of Navigation takes up, ship by ship, all characters of ships, shows the per-

sonnel needed, the number of line officers, the number of enlisted men needed, every class of ship, and concludes with the following:

After due consideration of the foregoing figures the bureau sees no necessity for asking for an increase of enlisted personnel this year, but believes that it will be necessary to do so next year if the recommendation of the General Board is approved. The question of the shortage of officers is much more urgent than that of enlisted men, as a sufficient number of ex-service men, to fill vacancies in war complements, can be readily obtained on the outbreak of war. But as the supply of officers is limited to the output from the Naval Academy it will necessarily be several years before the needs of the service in like respect can be filled if all vessels of the Navy serviceable for war purposes are placed in full commission.

That was the report of the Chief of the Bureau of Navigation. Now, I call attention to the fact that the Chief of the Bureau of Navigation, in his report of December, 1912, had recommended that no new appointments be made to the Naval Academy, and had said that the output of officers from the Naval Academy, upon the then existing number of appointments, would be adequate to man ships for a number of years. But, in May, 1913, the first act I performed in the way of personnel after I became Secretary, was to write and ask every Member of Congress to appoint two midshipmen instead of one. The next act was to have them appoint three instead of two, the next four instead of three, the next five instead of four, and in this same act of 1914, recommended at that time, I recommended and we secured from Congress the first naval reserve act ever passed. We secured the strengthening of the Naval Militia, and under this reserve act as amended in 1915 we were enabled to secure authority by which, when the war came, we enlisted a quarter of a million men who served the Navy very well.

The CHAIRMAN. The report of the General Board lays great stress, does it not, on the importance of increasing the personnel, and they say that it is of even more serious import than that of construction. Now, that being so, how can you reconcile your suggestion——

Secretary DANIELS. In my report——

The CHAIRMAN. Please let me finish my question——

Secretary DANIELS. Certainly.

The CHAIRMAN. Because it does not mean anything as a question unless I finish it.

Secretary DANIELS. Certainly, Mr. Chairman.

The CHAIRMAN. That being so, how can you reconcile your plan to increase the ships of the Navy ahead of the personnel, in view of this statement?

Secretary DANIELS. Very easily, Mr. Chairman. I knew that it would take three years to build a ship; that if we got a naval reserve and strengthened the militia—I will read from my annual report, page 31 of the annual report of the Secretary of the Navy for 1914:

It is for the Congress to establish the effective strength at which the Navy shall be maintained, both in personnel and in material, and for the department to advise as to the proper balancing of the two. For the reasons given above, the department is strongly of the opinion that any retrenchment that may be deemed advisable on account of the financial condition of the Treasury should not be in new construction, as it has pointed out that, if deemed necessary, the present authorized personnel can take care of the new ships that will be added to the Navy in the next two years by withdrawing from service old vessels of little or doubtful military value. Later on, however, increase in personnel should keep pace with new construction.

asked for for years and never obtained, and had strengthened the Naval Militia—

The CHAIRMAN. So you do not agree with the opinion of the General Board that the matter of personnel was of more serious import than that of construction?

Secretary DANIELS. I thought at that time, in view of the opinion of Congress and the very close appropriations of Congress, that it was best to get the dreadnaught then and defer until the next year the increase of personnel.

The CHAIRMAN. Capt. Taussig in his testimony says:

In 1915 we had 42 ships with only three-tenths of their peace complement, 16 ships with only one-tenth of the peace complement, 38 ships out of commission, with no personnel on board.

Secretary DANIELS. What year was that?

The CHAIRMAN. That was 1915—no personnel available for those ships.

Secretary DANIELS. In full answer to anything Capt. Taussig says, I will say that he had a very subordinate position. He had no responsibility. I will say that I never went to those officers to find out about ships. I went to the Chief of the Bureau of Navigation, and I have given you the report of the Chief of the Bureau of Navigation in full. I will quote it in my testimony, showing every character of ship in the Navy and how it was manned.

The CHAIRMAN. At that time you knew we were very short of men, did you not?

Secretary DANIELS. At what time?

The CHAIRMAN. In 1915.

Secretary DANIELS. No; I did not. I know that in 1914 we had increased in one year 4,600 men. Let me give you the number of ships we had placed in commission in that one year—more than we had ever had before. On page 31 of my annual report for 1913 I state:

It is estimated that more than 90 per cent of the effective fighting power of the Navy is now fully manned.

The CHAIRMAN. If those figures are correct that were given by Capt. Taussig it would certainly show that we were fatally short of men.

Secretary DANIELS. I have never read Capt. Taussig's testimony, nor do I propose to enter into any discussion of anything Capt. Taussig said. I have given you the report of the responsible Bureau of Navigation.

The CHAIRMAN. But I ask you, if those figures were correct, would it not indicate a shortage of men?

Secretary DANIELS. I have told you what the Bureau of Navigation said. I have told you we had 90 per cent of the effective fighting power of the Navy fully manned. What Mr. Taussig's opinion might be concerns me not at all. He had no responsible position.

The CHAIRMAN. If you do not want to take Capt. Taussig's testimony, I will state myself, then, I understand that in 1915 42 ships had only three-tenths of a peace complement, 16 ships only one-tenth

of a peace complement, and 38 ships were out of commission with no men available for those ships.

Secretary DANIELS. Do you state that from your own knowledge?

The CHAIRMAN. I will state that I get that from the testimony of Capt. Taussig.

Secretary DANIELS. I refer you to the report of the Chief of the Bureau of Navigation, which does not bear out at all the statement you have read.

The CHAIRMAN. If those statements happen to be correct, I would like to know, would they not indicate that we were short of men?

Secretary DANIELS. I acted upon the suggestion—

The CHAIRMAN. I know; but that is a very simple question.

Secretary DANIELS. A very simple question which you premise upon a statement which has no facts to bear it out.

The CHAIRMAN. I am asking you, if those figures are correct do they not show that we were short of men?

Secretary DANIELS. I am giving you the statement of the Chief of the Bureau of Navigation, which is official. Now, what the opinion of Capt. Taussig, or any other of the 2,000 officers of the Navy is, I never asked them. I have given you the report of the Chief of the Bureau of Navigation, who reported to me officially, and I put it in the record—as to every ship we had in the Navy, how it was manned, and to show you that 90 per cent of the effective ships were fully manned.

Now, it may be true, as it always is, that we had a lot of junk in the Navy, ships that we ought to have scuttled, that were not fully manned; but I will show you from the report of the Bureau of Navigation that the ships were manned exactly in accordance with the recommendations of the General Board.

The CHAIRMAN. Mr. Secretary, Capt. Taussig said that 42 ships had only three-tenths of their peace complement. Is that untrue?

Secretary DANIELS. I am giving you the statement of the Bureau of Navigation. I have never examined Capt. Taussig's statement.

The CHAIRMAN. I am asking you about these particular ships. Is that untrue?

Secretary DANIELS. I do not know anything about Capt. Taussig's statement. I give you the official report of the Bureau of Navigation.

The CHAIRMAN. I am asking you if there were not 16 ships with only one-tenth of their peace complement—

Secretary DANIELS. Let me read you the report—

The CHAIRMAN. Let me—

Secretary DANIELS. On this question, Mr. Chairman—

The CHAIRMAN. You will not answer my question. I want to ask something that you will answer.

Secretary DANIELS. I am going to answer the question officially. The General Board recommended enough personnel to keep in full commission all the battleships under 15 years of age from date of authorization, for destroyers and submarines under 12 years of age from date of authorization, half the cruisers and all the gunboats—that is what they recommended. Here is the report of the Bureau of Navigation, which shows that was done with the personnel. Now, as to somebody else's opinion as to the matter, I have no answer to make.

Taussig, or some other captain, or some other commander said that certain ships were not in full commission. I am answering you that all ships recommended by the General Board to be in full commission were in full commission; all that they recommended to be in part commission were in part commission. That is the official report to me.

The CHAIRMAN. Mr. Secretary, Capt. Taussig has stated that 42 ships had only three-tenths of their peace complement; that 16 ships had only one-tenth of their peace complement; and that 38 ships were out of commission, with no personnel on board and no personnel available for those ships. Will you please furnish the committee with the information which you can get, I take it, from the department, as to whether this statement was or was not correct in 1915?

Secretary DANIELS. I will furnish the committee with the report of the Bureau of Navigation.

The CHAIRMAN. I would like to have you furnish this specific information.

Secretary DANIELS. I have not the time.

The CHAIRMAN. I know; but you can get it from the department, and we will put it into the record at this point.

Secretary DANIELS. I will furnish you the report of the Bureau of Navigation of the ships at that time.

The CHAIRMAN. Will you not have information on this particular matter that I have asked you looked up and inserted in the record?

Secretary DANIELS. I will give you information as to every ship in the Navy.

The CHAIRMAN. But will you not specifically have the matter which I am asking you about looked up?

Secretary DANIELS. I will specifically have it looked up and will give you the statement of the Bureau of Navigation.

The CHAIRMAN. And in giving the statement of the Bureau of Navigation, will you please see that that question is definitely answered?

Secretary DANIELS. I will have the question definitely answered and give you the answer.

Senator TRAMMELL. And in view of the fact that you are going to get that information, I would like also to have the information furnished as to the number of these ships that were reserve ships and the number that were discarded ships. Capt. Taussig did not state that.

The CHAIRMAN. I think that is entirely proper.

Senator TRAMMELL. He did not state that in his direct testimony. He tried to create the impression in his direct testimony that they were all ships ready for war, but he did admit on cross-examination that he knew more or less of them were discarded or merely reserve ships.

The CHAIRMAN. It is entirely proper to have that put in.

Secretary DANIELS. Let me state again that every ship that the General Board said ought to be in full commission was in full com-

mision; that battleships, destroyers, and submarines, and all other ships were in such condition as the General Board recommended.

The CHAIRMAN. Now, if Capt. Taussig states that you forbade him to publish an article in the Naval Institute on "Personnel needs"; do you recall that?

Secretary DANIELS. I have no recollection of it at all.

The CHAIRMAN. You do not know whether you did or not, and you do not know any reason for doing so?

Secretary DANIELS. I do not know anything at all about it. When did he say it was done? I never heard of Capt. Taussig ever having written an article on personnel needs, to my recollection. To my recollection this is the first I ever heard of it. If he did, it came in from the Intelligence Office. There come in from one to 20 articles a day that officers wish to have published, and they go to Naval Intelligence and Operations, and I usually follow their recommendations, but I have no recollection at all of any communication or article that Capt. Taussig ever wrote. I think he was a commander at that time, maybe a lieutenant commander.

The CHAIRMAN. It appears on page 1160 of the typewritten record:

Navy personnel. J. K. Taussig, January 1, 1916.

Secretary DANIELS. 1916?

The CHAIRMAN. Yes.

Motto: "Historically, good men with poor ships are better than poor men with good ships." Naval Institute. First honorable mention. Never published, by order of the Secretary of the Navy.

Secretary DANIELS. I have no recollection of that at all.

In October, 1915, I recommended and we secured a very large increase of personnel.

The CHAIRMAN. You say in your statement that Admiral Plunkett told you that the Navy could never shoot so well as then; that is, in 1917?

Secretary DANIELS. I quoted from his testimony; yes. He said that in his sworn testimony before the committee.

The CHAIRMAN. Do you not remember that Admiral Mayo stated that the detachment of officers and men for armed guards greatly reduced the efficiency of the ships?

Secretary DANIELS. I do not recall his testimony. Of course, a ship that was placed in the York River for the purpose of training an armed guard would not be so efficient until those armed guards were trained as when you had taken the armed guard off, but that was temporary. Admiral Mayo stated in his testimony that when war was declared the fleet was in better condition than it ever was, and he was anxious to take the whole fleet and go across, and stated that it was ready to go.

The CHAIRMAN. And he also stated that taking the men off for the armed guards had reduced the efficiency of the ships.

Secretary DANIELS. Why, Mr. Chairman, of course, if you take a dozen expert gunners off a ship and put in men not quite so expert, you have to train them up a little while before they get quite as expert.

The CHAIRMAN. Mr. Secretary, Admiral Plunkett stated later that after the fleet came North about 50 per cent of the trained officers were detached, and he says that was the beginning of the downfall.

you might say, of the fleet efficiency, and I have seen nothing on record to indicate that they ever fully recovered from it, not even when the armistice was signed. In other words, the shooting was good and the ships were efficient before the war, but the shortage of officers and men reduced or destroyed the high state of efficiency as soon the war began.

Secretary DANIELS. I have told you a dozen times that when the war began the Bureau of Navigation took off of the old ships the most expert officers and put them on the ships most needed and turned them into training ships to train other men to take their places.

The CHAIRMAN. Do you not admit that the Navy was disastrously short of men when the war began?

Secretary DANIELS. I do not at all. I say that the Navy, so far as the fighting Navy was concerned, the first-line ships and destroyers, the fighting ships, we had an adequate number of men for them; but for the large duties we performed, if I had supposed we had enough men for all those duties, do you suppose I would have been running a Congress every week and asking for new men, until we increased from 60,000 to 500,000?

The CHAIRMAN. But the other witnesses have testified, Mr. Secretary, that we were very short of men—Admiral Badger, Capt. Pratt, Capt. McKean—

Secretary DANIELS. In the act of August—

The CHAIRMAN. I think every witness—

Secretary DANIELS. Wait until I get through. In the act of August 9, 1916, there was provision for the enlistment of something like 10,000 men additional, making a total of 77,000, until on March 24 the President authorized it up to 97,000. Now, what happened? Immediately upon the passage of the bill, August 29, I directed the Bureau of Navigation to use every effort, and the Bureau of Navigation did use every effort to secure the enlistment of men in the Navy. But yet we could not get the men. On the 1st of January, 1917, though in all those days we were appealing for men, we were 10,000 short of the authorized enlistment.

The CHAIRMAN. Therefore we were short?

Secretary DANIELS. And therefore I had requested Congress and Congress had granted the request for men; but if you ask me if we had enough men to carry on the war as we carried it on, why, my dear sir, if we had had enough for all purposes, I should not have been here every week before the Naval Committee asking for more. I could not have asked the President to sign an order on the 24th of March for 20,000 men. I would not have asked Congress the next month to increase it from 97,000 to 150,000. I would not have asked him to increase it again to 250,000. I would not have enrolled 100,000 reserves.

The CHAIRMAN. Whatever the reason, we did not have the men at outbreak of the war?

Secretary DANIELS. We had sixty-odd thousand men.

The CHAIRMAN. And that was not enough for the purposes?

Secretary DANIELS. Enough to man every dreadnaught we had, every destroyer we had, every submarine we had, every fighting ship in the line.

The CHAIRMAN. To man them fully for war?

Secretary DANIELS. To man them fully for war.

The CHAIRMAN. And they were fully manned for war?

Secretary DANIELS. Admiral Mayo says that they were all ready to go into the fight.

The CHAIRMAN. I will give you some figures a little later about this matter.

Secretary DANIELS. Of course, as soon as war came—in fact, before the war came, to wit, on March 24—in January we were 20,000 behind, and I instructed Navigation to press the enlistments.

On March 24 the President signed the order for 20,000 more, and I instructed Navigation to telegraph to every editor in the United States—of course, we needed more men for the purposes for which we were going into it. But 60,000 men could have manned every dreadnaught, every destroyer, every submarine, every first-line fighting ship. You see, Mr. Chairman, at that time, in the fall of 1916, nobody ever thought of having an armed guard on a ship. It was an entirely new naval function, and whatever lack there may have been on any ship in the latter part of March, 1917, was due to taking armed guards off of those ships for those purposes.

The CHAIRMAN. Mr. Secretary, in your annual report for 1918 you state that the Navy from stem to stern had been made ready to the fullest extent possible for any eventuality.

Secretary DANIELS. Mr. Chairman, I had apprehended that you would ask that question, because you have asked it of everybody else, so I prepared you an answer. I want to be very careful about this answer, because when I look back on it I am surprised at the moderation of my language.

THE NAVY WAS READY—THE FLEET MOBILIZED THE DAY WAR WAS DECLARED.

Mr. Chairman, you have repeatedly quoted an extract from my annual report for 1918 and have made it the basis of questions asked nearly every witness. It seems to be such a favorite question of yours that I will quote it in full:

Before the President went before Congress on the 2d day of April, 1917, and delivered his epoch-making message, which stirred the hearts of all patriots, and in the climax said, "America is privileged to spend her blood and her might for the principles that gave her birth and happiness and the peace which she has treasured; God helping her, she can do no other," the Navy from stem to stern had been made ready to the fullest extent possible for any eventuality.

You have asked repeatedly of witnesses, "Would you say that the Navy on April 6, 1917, was ready from stem to stern?" I will save you the trouble of asking that question of me, and will answer it now.

The CHAIRMAN. One minute, Mr. Secretary. That was your statement, not the President's, was it not?

Secretary DANIELS. That part, from "stem to stern," was mine.

The CHAIRMAN. Yes.

Secretary DANIELS. But this previous part is not mine.

The CHAIRMAN. I thought you were referring to it as a statement of the President.

Secretary DANIELS. It is one of the best statements that I ever made, and one of the truest. It is one of my statements that I think is really a good epigram, and really sums up in a few words the whole story of the Navy. If I had written a whole book I could not have said it more truly.

statements are true, so far as I know.

The Navy was ready from stem to stern. The fleet was ready, for it was mobilized the day war was declared, and Admiral Mayo, commander in chief, Admiral Wilson, and others have told you the fleet was in the highest state of efficiency it had ever been. The Navy Department was ready; for every bureau and office performed the greatly added duties of war with even greater efficiency than they had functioned in time of peace. There was need of more officers and more personnel, as there always has been and always will be when war comes. Everybody had to work overtime, most of us day and night, as always will be the case under such conditions. But, when the war call came, every division of the Navy, every office, bureau, or station, responded promptly, and not one bureau or division of the fleet or department failed in any duty it was assigned or called upon to perform.

Everything was not 100 per cent perfect. It never was and never will be in any human organization. Thousands more officers, hundreds of thousands more men and hundreds of ships were required for all the varied tasks the Navy was called upon to perform. And we got the ships and the men and the officers, and everything that was required.

If the Navy hadn't been ready, the department as well as the fleet, we couldn't have got them in anything like the time we did.

If the chairman bases his questions on the theory that we should have had all the officers and men needed for war; have had them trained and waiting for the whistles; should have had all the ships to create an ideal fleet and to perform all kinds of war service; all these ships in perfect condition, fully manned, with steam up, waiting for Congress to pass the resolution declaring war; if he assumes that all this must have been done before the Navy was "ready," there was really no need of asking them. We did not have a perfect Navy then, and never will have it—and neither has any other nation in the world. Germany, which for 40 years had devoted its energies to war preparation, didn't have a fleet prepared for the kind of war it must wage. When the European war began it had only 28 effective submarines, and after four years, centering its activities on the production of U boats, had produced only 400. Lord Jellicoe, Sir Percy Scott, and other naval authorities have devoted hundreds of pages to pointing out the deficiencies of the grand fleet. The British Navy, after three years of war, did not have half enough destroyers and other craft to meet the unrestricted submarine warfare. The United States Navy, one admiral after another has testified, was in as high a state of readiness as was any other navy at the time it was called upon for war service.

AFTER THE SINKING OF THE "LUSITANIA."

The chairman in his series of questions, reverts continually to two events—the sinking of the *Lusitania* and the Battle of Jutland.

The *Lusitania* was sunk on May 7, 1915. Four days later Admiral Benson assumed the office of Chief of Naval Operations, which had been created by act of Congress a few weeks previous. The new

organization of the Navy Department was put into effect promptly. I approved the administrative plan, and on May 28, as Admiral Benson told you, I sent a letter to every bureau directing them to make a report on their preparedness for war and to point out any particulars in which they were lacking. All the bureaus thereafter made periodical reports of progress in preparedness.

The plan for reorganization of the fleet, upon which we had been at work for some months, was approved and put into effect in July, 1915, Admiral Mayo told you; and Admiral Benson pointed out that this new organization was so efficient that "it carried us through the war and proved successful in every particular."

In the same month, July, 1915, I called upon the General Board to express its opinion to the department "as to what the Navy must be in the future to stand upon an equality with the most efficient and most practically serviceable" navies of other countries, and to submit a program "formulated in the most definite terms," one "planned for a consistent and progressive development of this great defensive arm of the Nation." The General Board, of which Admiral Dewey was chairman, on July 30, 1915, submitted a report laying down the following policy:

The Navy of the United States should ultimately be equal to the most powerful maintained by any other nation of the world. It should be gradually increased to this point by a rate of development year by year, as may be permitted by the facilities of the country, but the limit above defined should be reached not later than 1925.

I call your attention to the fact that the legislation which has been secured and which I have recommended to this Congress will carry out exactly what Admiral Dewey recommended.

At the same time the General Board submitted a building program for the fiscal year 1917.

On October 7, 1915, I directed the General Board to prepare "a building program for the Navy that will continue over a period of five years, with an expenditure of about \$100,000,000 each year for five years on new construction only." In accordance with this the General Board, on October 12, 1915, submitted an elaborate building program, which embraced 156 war vessels, including 10 dreadnaughts, 6 battle cruisers, 6 scout cruisers, 50 destroyers, 67 submarines, and vessels of various other types.

This five-year building program, with additional recommendation of 32 more submarines than the General Board had recommended, was presented in my annual report of December 1, 1915, in which I said:

In presenting this report I feel it my duty to urge above everything else the necessity of the adoption by Congress of a continuous program of construction.

I urged that measure in every possible way, and the result was that the next naval appropriation act, that of August 29, 1916, not only authorized the construction of 156 vessels, but shortened the time of the program from five to three years, provided for a very large increase in personnel, and carried appropriations of over \$312,000,000.

The Naval Consulting Board, which brought to our assistance in working out naval problems the most eminent inventors and scientists in the country, was created in 1915. On July 7, 1915, I wrote to Mr. Thomas A. Edison, telling him of my desire and intention to create

ments with a view to develop an which could be utilized by the Navy. Mr. Edison at once consented to serve in an advisory capacity. On July 19, 1915, I addressed a letter to the American Institute and other scientific societies, suggesting that each nominate representatives to serve on an advisory board. The result was the creation of the Naval Consulting Board, which did notable service for the Navy and the country both previous to and during the war.

All these things, and many more, in the way of preparedness for war were done in 1915, within a few months after the *Lusitania* was sunk, and long before there was any general conviction or opinion that this country would be drawn into the European conflict.

The CHAIRMAN. I referred to your statement in your report of 1918, in which you did state, did you not, that the Navy, from stem to stern, had been made ready for any eventuality?

Secretary DANIELS. I did state that, and that is correct.

The CHAIRMAN. Admiral Benson states that the Navy was not in all respects prepared for war.

Secretary DANIELS. If you will read the testimony of Admiral Benson—the only way to read a man's testimony——

The CHAIRMAN. Admiral Benson was your Chief of Operations, was he not?

Secretary DANIELS. Chief of Operations; yes, sir.

The CHAIRMAN. I will quote his statement. I read from page 4479 of the typewritten record. [Reading:]

The CHAIRMAN. Would you say that the Navy was in all respects prepared for war in April, 1917?

Admiral BENSON. It was not.

The CHAIRMAN. Would you say that the statement in the Secretary's annual report that the Navy was from stem to stern ready for war in April, 1917, was justified?

Admiral BENSON. Not from my point of view; no.

Secretary DANIELS. Let me read you from Admiral Benson's testimony on page 2085.

The CHAIRMAN. Is that the right page?

Secretary DANIELS. No; that is not right. Well, Mr. Chairman, I told you just now that we did not have, never did have, never will have, every ship and every officer and every man we need; but the Navy from stem to stern had been made ready to the fullest possible extent for any eventuality; and that is true.

Now, when I say to the fullest possible extent, I do not say that every man in the Navy was perfectly well and perfectly efficient; that every ship in the Navy was 100 per cent; but I say to the fullest extent possible it was done.

The CHAIRMAN. Then Admiral Benson was wrong, was he?

Secretary DANIELS. No; he was not wrong from his point of view.

The CHAIRMAN. Admiral Benson states that when war was declared the personnel of the Navy was inadequate.

Secretary DANIELS. Well, I have told you that when war began, on March 24, before war did begin, I requested the President to issue a proclamation to increase the Regular Navy 20,000, which he did. If I had thought we had all the personnel we were going to need for war, I would not have asked that.

In March I asked 50,000 men. Of course, we needed more men for the great duties we had to perform.

The CHAIRMAN. I will read you from the testimony at page 4540 of the typewritten record. This is from the testimony of Admiral Benson. [Reading:]

The CHAIRMAN. And that was the existing state of affairs on April 6, 1917, was it not?

Admiral BENSON. Yes; we were short of personnel. We were decidedly short of personnel.

Secretary DANIELS. But we had—

The CHAIRMAN. Wait a minute, please, and let me finish this.

Secretary DANIELS. Yes.

The CHAIRMAN (continuing reading):

The CHAIRMAN. That is for the battle fleet?

Admiral BENSON. The battle fleet was short of officers and men for battle purposes.

Secretary DANIELS. Exactly. As I told you, when we took off the thousands of men for armed guards, the battle fleet needed those trained men, and we trained men; and if you will look at the record, within a month—it is marvelous how those new men became efficient.

The CHAIRMAN. That is, the battle fleet was short of men at the time of the outbreak of war.

Secretary DANIELS. Of course the armed guards had been taken off, Mr. Chairman; and the armed guards had been taken off for a purpose that was essential and very wise.

The CHAIRMAN. Admiral Benson states that when war was declared the ships were not fully manned.

Secretary DANIELS. I told you we had taken off of the ships for armed guards and for other purposes that were acutely needed, which temporarily took that many men from the ships.

The CHAIRMAN. Admiral Benson states that when war was declared the ships were not all ready.

Secretary DANIELS. There never was a minute in the history of any navy on earth when ever ship was all ready; and there never was an officer of a ship since time began that would not say—why. Mr. Chairman, when a ship comes out of the shipbuilders' the first thing, a new ship built upon the most perfect plan of construction, when a captain goes aboard, in less than a month he writes and wants something changed in it. There is always that condition. Nothing is ever 100 per cent, and I have never said so.

The CHAIRMAN. Admiral Benson states that when war was declared the Navy was not mobilized.

Secretary DANIELS. Admiral Mayo has declared that on the day war was declared he had to issue only one telegram, "Mobilize," and the fleet was mobilized.

The CHAIRMAN. Then Admiral Benson was wrong in stating that the Navy was not mobilized?

Secretary DANIELS. What he meant by "mobilize," I should imagine, was that every ship on the Naval Register was not mobilized: that the fighting fleet—Admiral Mayo has testified, and Admiral Benson would, if you had asked him that question—

The CHAIRMAN. He was asked directly, "Was the Navy mobilized," and he replied that it was not.

Secretary DANIELS. When you refer to the Navy, you might ask me, that would include a warehouse and ordnance factory—was it

The CHAIRMAN. You think that is what one would deduce from the statements of Admiral Benson?

Secretary DANIELS. I would say that Admiral Benson's answer was this: If you will bear in mind Admiral Benson was asked a number of questions you put to him. If you will read his testimony in the large, you will see that its whole bearing does not justify picking out one or two questions in answer to which he said that he was not 100 per cent, which is not all not ready.

The CHAIRMAN. Do you mean that my questions were leading questions?

Secretary DANIELS. Not at all; not at all. But suppose I ask you the question, "Mr. Secretary, was every ship in the Navy on the 6th of April, fully manned, fully efficient; was every possibility that could be made on it, and addition"; and I were to say "No"—I am a little too foxy to be caught by such questions. You would say, "The Secretary of the Navy said the Navy was ready." Admiral Benson has told you truly that no navy was 100 per cent efficient, every ship is not 100 per cent efficient, as I said in my statement, and it is as true as Holy Writ, the Navy from stem to stern had been made ready to the fullest possible extent that is the truth.

The CHAIRMAN. That statement is not borne out, is it, Secretary?

Secretary DANIELS. Absolutely borne out. Does Admiral Benson say that it had not been done to the fullest possible extent?

The CHAIRMAN. What do you mean by "the fullest possible extent"?

Secretary DANIELS. Of human possibility.

The CHAIRMAN. Admiral Benson states that in 1917 we did not have an adequate air service. What have you to say to that?

Secretary DANIELS. That is very true; that is very true. We did not have an adequate air service in 1917. Great Britain did not have an adequate air service in 1917 or in 1918. Germany did not have an adequate air service in 1917 and 1918, and there never was an adequate air service that lasts three months. The airplanes in the United States and Germany were all scrapped about every three months. The time you got a machine you thought was all right, and then you got a better machine, and you had to scrap your machine and go ahead.

The CHAIRMAN. Admiral Benson has stated that when the fleet force came north from the Caribbean it was not screened.

Senator PITTMAN. Wait a moment. I think it would be more accurate to read just exactly the questions and answers and then attribute a conclusion of that kind to an admiral.

The CHAIRMAN. I read from page 4480 of the typewritten report. I think it will be better, because it brings out some other points.

Senator PITTMAN. Yes.

The CHAIRMAN (reading):

The CHAIRMAN. Were there any scouts or screening vessels with the fleet force when it came north?

Admiral BENSON. There were some.

The CHAIRMAN. Previous to the war?

Admiral BENSON. There were some destroyers. I have forgotten how many. Not very many. I will say it was not properly screened.

The CHAIRMAN. And do you consider scouts and screening vessels as of importance?

Admiral BENSON. Yes.

Secretary DANIELS. Mr. Chairman, let me add right there that Congress had authorized no battle cruisers or scout cruisers prior to that in time for them to have been constructed.

Now, adequately screening and adequately doing all those things requires many types of ships. Now, we did not have those types of ships; we have not got them now; and I am asking this Congress to give us new types of ships which have not yet been put into the bill, and if we have a war five years from now people will say, "Well, why haven't you got destroyer leaders? Why haven't you got these small scout cruisers?" I shall then reply and say, "Gentlemen, I recommended to this Congress to do it, and they did not." Congress had not authorized these things.

The CHAIRMAN. But many of the witnesses have testified—and I think there is no question about the fact—that we did not have all the screening vessels that we had in this country with the fleet. You will admit that, will you not?

Secretary DANIELS. That is a matter that I would have to refer to Operations and to Admiral Mayo.

The CHAIRMAN. But they have already testified to that.

Secretary DANIELS. If Admiral Mayo and Admiral Benson have told you—

The CHAIRMAN. Admiral Mayo has testified that the fleet consisted of certain battleships and a few destroyers.

Secretary DANIELS. Yes.

The CHAIRMAN. A very few; and one or two other boats.

Secretary DANIELS. Yes; and Admiral Mayo has also testified to you that the fleet was ready for war, and he wished to go across and fight.

The CHAIRMAN. Yes; but he specifically said that we were short of screening vessels—

Secretary DANIELS. Let me read you what Admiral Mayo said.

The CHAIRMAN (continuing). And that he did not have with the fleet all the screening vessels that were in our Navy. In fact, there were very few with it.

Secretary DANIELS. I do not know about that. Let me read you this [reading]:

When the fleet arrived in Hampton Roads about the 1st of April, after its training in Cuban waters, it was in the best state of preparedness that it had ever been, and there was a feeling of confidence of the personnel of being able to cope with every emergency.

The CHAIRMAN. I do not think that answers my question at all.

Secretary DANIELS. If you are asking me if every possible screening ship was with the fleet, I answer you that I have not the record.

Senator PITTMAN. Mr. Chairman, I have not been present a great deal lately at these hearings.

The CHAIRMAN. We have missed you very much.

Senator PITTMAN. I thank you for that, possibly more than I would had I been at the hearings; but I had some work to do that I thought of great importance lately, and it is still of importance.

The CHAIRMAN. I know you have.

about that; whether we come to an adjournment or take a recess, it will come before the Republican convention at Chicago.

The CHAIRMAN. Or at least before the Democratic convention in San Francisco.

Senator PITTMAN. I think there will be a bigger show at Chicago, and I am going to that. We will not do any more work; and there is a lot of work to finish up there, and, not to criticize the chairman at all of this committee, I do not believe that we are going to accomplish anything by constantly reading the evidence again into the record that is already in the record. The chairman reads from the record the testimony of some prior witness. The witness on the stands reads from the testimony of another witness that seems favorable to his position, with the result that we are not getting additional facts before the committee; and that is all that this committee is appointed for, to get the facts. We are piling up a cumulative record here, at a tremendous expense, and a delay of the services of Senators that should be valuable, and it seems to me that this argumentative character of examination and of testimony is not accomplishing anything. To ask the opinion of the witness as to whether or not he agrees with this opinion or with that opinion is not going to affect the determination of this committee.

The CHAIRMAN. Does not the Senator think that when a very high official of the Navy Department, the Chief of Operations, takes a stand which apparently does not agree with the stand taken by the Secretary of the Navy, his testimony should be read to the Secretary and at least he should explain his views about such testimony.

Senator PITTMAN. I do not see that it makes any particular difference to this committee or to the Senate as to whether or not the Secretary's view agrees with the view of Admiral Sims or not, as to whether there were enough screening vessels or enough of this kind of vessels. As a matter of fact, the committee will take the direct testimony of every one of these witnesses, and particularly of the experts with regard to that matter, and determine whether there were mistakes or not.

The CHAIRMAN. Does not the Senator think where the high official has made the statement, which statement we must regard as accurate unless we have some proof to the contrary—does not the Senator think that the Secretary of the Navy is entitled to explain these statements away if he can? It seemed to me that that was fair to him.

Senator PITTMAN. Well, the Secretary has undoubtedly explained them away; but the only trouble was, it was so unnecessary to take up all the time to have the Secretary explain something away that has already been explained away a hundred times.

The CHAIRMAN. The committee differ about that.

Senator PITTMAN. All I am saying is that I am going to protest upon the floor of the Senate against this character of unnecessary delay. I am tired of it, and I think the country is tired of it.

The CHAIRMAN. That will be interesting, but I doubt whether it will get very far. So far as the Secretary of the Navy is concerned we hope to get through with him to-day.

Senator PITTMAN. You expect to get through with the Secretary of the Navy to-day?

The CHAIRMAN. Yes.

Senator PITTMAN. And I will guarantee that I will get through with Admiral Sims on my cross-examination in such a short time that you will not know that I have started.

The CHAIRMAN. That will depend on how he answers your questions, will it not?

Senator KEYES. I think we would make a great deal more progress if the witness would only answer the questions that the chairman asks.

The CHAIRMAN. It would shorten matters.

Senator PITTMAN. Admiral Sims is not a direct answerer of questions.

The CHAIRMAN. I have several times asked the Secretary if he would not answer my questions—

Secretary DANIELS. I must interrupt you there. I have answered every one of your questions.

The CHAIRMAN. But very much at length.

Secretary DANIELS. I have always given you a full answer to your questions.

Senator PITTMAN. I am simply criticising what I consider to be the wasteful policy of reading the testimony backward and forward. It is cumulative, and you might read the whole record.

The CHAIRMAN. I do not think it is. I think we will get through very shortly now. I hope very much to get through before we adjourn this session and I think we can.

Secretary DANIELS. Mr. Chairman, I wish to say this: So far as I have observed, every time you have asked any witness on the stand the question which you quoted from my annual report, you have asked them this question: "Do you agree with the Secretary, when he said that the Navy was ready from stem to stern?"

The CHAIRMAN. Yes.

Secretary DANIELS. You have not, as a rule, quoted everything that I have said.

The CHAIRMAN. You mean the words—

Secretary DANIELS. "As far as possible."

The CHAIRMAN (continuing). "To the fullest extent possible for any eventuality?"

Secretary DANIELS. I have said that the Navy had been made ready to the fullest extent possible. Now, I submit that that statement is absolutely correct, and that no witness has denied it—either Benson or Mayo or any admiral who was in a responsible position.

The CHAIRMAN. I am asking you now about the specific statement of a witness. Admiral Benson states that when war was declared it would have been impossible for our fleet to meet that of Germany. [Reading:]

The CHAIRMAN. Several of the witnesses have already testified that our fleet could have met the German fleet and probably could have whipped it. You would not say that that was so?

Admiral BENSON. Theoretically it is an impossibility. It is a purely theoretical question, and the theoretical answer is that it would have been an impossibility.

Have you anything to say about that?

Secretary DANIELS. I have, indeed. I have a prepared statement about that, which I will either read to you or put in the record.

The CHAIRMAN. It depends on the length of the statement.

Senator PITTMAN. I certainly object to it. I think it is absolutely a duplication of what we have had before.

Secretary DANIELS. I have a very elaborate statement as to the effectiveness of the German Fleet and the American Fleet in every particular, and if you ask me that question I will put it into the record. This is a statement of Admiral Strauss, which appears in the Army and Navy Register, and I will place in the record also a statement by Capt. William D. Leahy, director of gunnery exercises and engineering performances, in which they take the ground that the American Fleet could have met the German Fleet and defeated them. That is a matter of opinion of naval officers on strategy; but I wish to put in the record the statements of Admiral Strauss and Capt. Leahy.

(The matters last referred to by Secretary Daniels are here printed in the record, as follows:)

[Extract from Army and Navy Register, May 1, 1920.]

Since his appearance before the committee Admiral Strauss has strengthened his testimony by inserting in the record a statement setting forth the reasons on which he based his unswerving faith in the superior fighting qualities of the American Fleet over that of the German. He says:

The entire battleship force of the German high-sea fleet has a broadside fire of 126,608 pounds. This excludes, of course, the torpedo defense battery, which would be ineffective against armor. Our fleet of 16 battleships had an equal armor-piercing broadside fire of 163,940 pounds. This is a superiority nearly 30 per cent. I think it will be admitted by all students of this subject that the lightly armored battle cruiser has no place in the line of battle. Nevertheless, had our enemy put her five battle cruisers in, she would still have been 60 pounds weaker in broadside fire than we would have been. It may be claimed that inasmuch as the five German battle cruisers survived the fire of Beatty's six, they would have had an equal chance with our heavy guns. This is not the case. They would not have fired the nonpenetrating shell employed by the British in the battle. Their ineffectiveness is referred to in Admiral Jellicoe's book, and has been repeatedly spoken of by other British officers. They have been discarded. We never had them. We would have sunk the German battle cruisers with the same kind of a shell that they used to sink the British battle cruisers—namely, if the Germans had seen fit to put those cruisers in the line against our battleships.

Now, if the fighting strength means anything it means the ability to deliver a heavy broadside and the armor to withstand them. We were fairly equal as to armor and superior in the ability to hammer our adversary."

The memorandum of Capt. Leahy, above referred to, is here printed in the record, as follows:)

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, May 18, 1920.

Director of gunnery exercises and engineering performances,
Secretary of the Navy.

Subject: Comparison of gunnery efficiency of the battleship fleets of Germany and the United States in 1914 and in 1917.

In a comparative analysis of the battle efficiency in gunnery of two modern ship fleets it is believed to be correct to take into consideration only the all-big-gun type of battleship (the all-big-gun ships) and in the United States this will include only the *South Carolina* and *Michigan* and battleships later date.

2. In order to avoid making in the comparison any assumptions that might be unfavorable to the enemy force, and in view of the fact that the United States had no battle cruisers to oppose the seven battle cruisers of the German Navy, the German battle cruisers will be given the full value of battleships carrying the same number and caliber of guns.

This assumption is favorable to the German fleet because of the proved inability of battle cruisers to stand up under the fire of superdreadnaught battleships.

3. In order to avoid inequalities in a comparison of gunnery effectiveness it is necessary to assume equal skill in the offensive use of its battery by the personnel of each fleet. It is believed that the gunnery efficiency of the personnel of the United States fleet was superior to that of the German fleet both in 1914 and in 1917, before it became necessary to transfer trained men from the battleships to armed guard duty, to transports, and to other duty which required trained men.

4. Assuming equal skill and determination to win, and in the absence of proof by battle, any fair comparison of the fighting strength of two battleship fleets must be based on the hitting power of their guns. This hitting power is composed of three factors as follows:

(1) Probability of hitting, which may be accurately compared by the relative danger spaces of the guns under consideration.

(2) Striking energy in foot-tons of the projectiles at the end of their flight. This remaining energy in the shell is effective in penetrating armor and is equal to one-half the product of the mass of the projectile and the square of its velocity.

(3) The destructive effect of the explosion of the shell, which may for the purpose of this comparison be assumed to be proportional to its weight.

5. Exact information as to the velocity and weight of German projectiles is not available, and it is assumed that they are the same as those of American projectiles of the same caliber, although it is believed that this assumption favors the German guns. It has been generally understood that American guns are designed for higher muzzle velocities than are the German naval guns.

During a recent inspection of the *Badin* a range table was found which showed a muzzle velocity of 760 to 800 meters per second (2,442 to 2,624 feet per second) for the latest 15-inch naval guns on that vessel.

In this comparison the German 15-inch gun is given the same muzzle velocity as our 14-inch .45 caliber guns, 2,600-foot seconds.

In comparing the effectiveness of the gunnery of the two battleship fleets it must be assumed that neither fleet has any advantage of position, that the simple battle formation ships in column will be used by both, and that only those guns which will bear on one broadside can be brought into action.

COMPARISON OF FLEETS IN 1914.

In 1914 the United States Navy had 10 dreadnaughts carrying eighty 12-inch guns and twenty 14-inch guns, a total of 100 heavy guns, all of which can fire on one broadside.

In the German fleet there were 17 dreadnaught battleships carrying one hundred and thirty-eight 12-inch guns and forty-eight 11-inch guns, a total of 186 guns. Of these one hundred and twenty-two 12-inch and thirty-two 11-inch, a total of 154, could fire on one broadside. There were also seven battle cruisers carrying twenty-four 12-inch guns and thirty-eight 11-inch guns, a total of 62 guns, all of which could fire on one broadside.

Counting battleships and battle cruisers, the German fleet could fire at one broadside one hundred and forty-six 12-inch guns and seventy 11-inch guns, a total of two hundred and sixteen 11-inch and 12-inch guns, as opposed to one hundred 12-inch and 14-inch guns in the United States Fleet. This would appear to indicate that the destructive power of the German fleet was twice that of the United States fleet. Such is not the case, however, due to the superior effectiveness of the heavier guns of the United States fleet.

The records of the battle practice of the United States fleet in 1914 show that a good percentage of hits was made at an average range of about 10,000 yards. It is, therefore, considered proper to assume that the battle in 1914 would have begun at ranges approximating 12,000 yards.

For purposes of comparison the 14-inch gun is taken as a standard and the effectiveness of other guns are compared with that of the 14-inch gun by the

$$D' \frac{1-2mv^2}{S'} \times \frac{A}{W'} = \frac{A}{W}$$

Where D=size of projectile.

$1-2mv^2$ =striking energy in foot tons.

S=danger space.

W=weight of projectile.

A=ratio of value of assumed projectile to 14" projectile.

14" projectile is the standard, or unity.

$$\frac{11'' \quad 385,343 \quad 55 \quad 666 \quad 14,115,114,000}{14'' \quad 903,125 \quad 57 \quad 1,400 \quad 72,069,375,000} \times \frac{A}{W'} = \frac{A}{W} = .195 \text{ or } .20$$

The results of this calculation are as follows:

Comparing projectiles to 14-inch projectile by the above formula:

$$11'' = .20$$

$$12'' = .56$$

$$14'' = 1.00$$

$$15'' = 1.45$$

Using the above factors and considering the total number of gun each other, we get the following comparison:

$$(1914) \frac{\text{German gun power} \quad 95.8}{\text{United States gun power} \quad 64.8} = 1.48$$

In other words, in 1914, if the United States fleet had met the G and fought at a range of 12,000 yards (the range which target-practice indicated would have been used), the German fleet would have been superior to the United States in effective gun power. This assumes the several battle cruisers of the German fleet would have hitting power of a battleship.

THE SITUATION IN 1917.

At the long-range practice of 1917, conducted by the Atlantic following results were obtained: Five ships carrying guns of 14-inch fired at an average range of 17,370 yards. The 52 guns of these 305 shots and made 22 hits in a battleship target. The average per hits was 7.3. Eight 12-inch-gun ships fired at an average range yards and made 12.1 per cent hits. The best ship of this class made 18.1 per cent hits. This clearly indicates that the United States fleet in 1917 have made effective hits against the enemy at a range of 18,000 yards.

In 1917 the United States fleet consisted of 14 dreadnaughts having 14-inch guns; seventy-eight 12-inch guns, a total of 142 guns a broadside. The German fleet consisted of 19 dreadnaughts firing in side sixteen 15-inch guns, one hundred and twelve 12-inch, thirty-two 10-inch and 160 guns on broadside. She had five battle cruisers carry 12-inch and twenty-eight 11-inch, a total of 44 guns. Counting dr and battle cruisers, the German fleet would then have opposed 204 guns. United States fleet having 142 guns. This difference in numbers is, however, by the greater number of heavier guns—for instance the 11-inch the German ships were much less effective at 18,000 yards range than and 14-inch guns of the United States vessels.

Using the same factors and formulas as in the 1914 comparison the comparison between the gun power of the German battleship fleet and American battleship fleet is obtained: German effective gun power of the United States battleship fleet equals 105.16

$$\frac{105.16}{105.60} = .995.$$

In other words, the United States battleship fleet was $\frac{1}{2}$ per cent to the German fleet in effective gun fire at battle ranges.

From the above it can, therefore, be reasonably concluded that even if the German battle cruisers are assumed to have the full fighting power of a dreadnaught, the United States fleet as it existed at that time (1917) would have been at least on equal terms in destructive gun power with the German fleet.

The following table shows the list of the effective ships in the American and German navies in 1917. It will be noted that the greatest disparity between the fleets exists in destroyers, submarines, and vessels suitable for scouting, which disparity might have had a material effect upon the battle tactics adopted by the fleet commanders. This comparison of the effective gun fire of the two battleship forces is based on the assumption that they engaged in the open sea, in simple column formation and at the accepted ranges of that date; and it is believed that in the last analysis of the outcome of battle would have depended upon the relative gun power of the two battleship fleets.

In the absence of accurate information as to the extent of their effect on gunnery, the battle experiences of the German personnel, and the material deficiencies of the German ships resulting from their long voyage to any probable battle area, have not been considered in this comparison.

	Germany.	United States
Battleships ¹	19	14
Battle cruisers.....	5	.....
Cruisers ²	19	15
Light cruisers ³	18	2
Destroyers ⁴	160	51
Submarines ⁵	168	5

¹ All big-gun ships only.

² Vessels below the battleship and battle cruiser types, having 4-inch guns or larger, and a speed of under 25 knots, and launched since 1896.

³ Cruisers having a battery of 4-inch guns or larger, and a speed of 25 knots or more, launched since 1896.

⁴ Destroyers with displacements over 500 tons launched since 1901.

⁵ Submarines having surface displacements over 200 tons and launched since 1901.

WILLIAM D. LEAHY.

The CHAIRMAN. Do I understand that those opinions represent your ideas on the matter fully?

Secretary DANIELS. I think their arguments are sound. If you asked me about whether a certain number of ships could fight another number of ships, my opinion and your opinion and Senator Keyes's opinion and Senator Pittman's opinion and Admiral Benson's and Admiral Mayo's may not agree. I am giving you the statements of expert officers who have made a study and calculation mathematically, which is very interesting, and which I am inclined to think correct; but it is a matter of opinion. You never can know which fleet can lick the other until you try. That statement shows, Mr. Chairman, that in battleships hitting power we were the equal or superior of the Germans in 1917.

The CHAIRMAN. That is, in the hitting power of our guns, do you mean?

Secretary DANIELS. Yes; of the fleet; the German fleet and our fleet. It is all set out there. I will read it for you if you want to hear it.

The CHAIRMAN. No; I do not think it is necessary.

Secretary DANIELS. It is ably written by the head of the target practice, Director of Gunnery Exercises. He has made a very elaborate and able argument.

The CHAIRMAN. Did you ever at any time give orders, Mr. Secretary, that the Army and Navy Joint Board should not meet?

Secretary DANIELS. I could not give such orders, Mr. Chairman. The only man that could give orders to the Army and Navy Joint Board would be the Secretary of War and the Secretary of the Navy,

The CHAIRMAN. That is, could the President not give orders to have it stopped without the Secretary of War or the Secretary of the Navy joining with him?

Secretary DANIELS. Certainly; he is the Commander in Chief of the Army and the Navy. Any order he gives goes.

The CHAIRMAN. Could the Secretary of War give orders to have it stopped without the President or the Secretary of the Navy?

Secretary DANIELS. No; the Secretary of War could give orders that the Army officers should not attend; or the Secretary of the Navy could give orders to Navy officers not to attend. Let me explain that to you. Since that matter has come up it may be well to give you the facts, because it seems there is being retailed here by certain witnesses a lot of gossip having no connection whatever with this inquiry, but as to such a Joint Army and Navy Board did in 1914, which seems to me entirely out of place; but you will recall very well that in the early part of the administration there was a very acute situation between a friendly power and the United States, and that the President and the administration and the country were concerned with that acute situation. About that time the Joint Army and Navy Board had made certain recommendations, which, by some subterranean passage, became circulated upon the hill. I am not certain whether it was circulated in the newspapers or not.

Senator KEYES. Do you recall what the subterranean passage to which you refer was?

Secretary DANIELS. Well, I do not know whether it was a member of the Joint Army and Navy Board or some person to whom they communicated their information.

Senator KEYES. Do those passages still exist?

Secretary DANIELS. I think that I cut some of them off and torpedoed some others. But that information became general. Its becoming public might have resulted in a very serious trouble with a friendly power. The recommendations of the Joint Army and Navy Board, which were most confidential, became whispered about and discussed generally. People came to me and said, "Is it true that the Joint Army and Navy Board have decided to do this and to do that?" which, if it had been done, would have been tantamount in the eyes of a friendly nation to our getting ready to go to war with it; and the Army and Navy Board for a period held no meetings for a time.

The CHAIRMAN. Did you have anything to do with cutting off the meetings?

Secretary DANIELS. I instructed the naval members of the board not to attend any further meetings until they were directed to do so, and it was all on account of international very grave questions.

The CHAIRMAN. Is there any other agency to coordinate the Army and Navy for offense and defense?

Secretary DANIELS. When that international acute situation passed, the Joint Army and Navy Board resumed their meetings.

The CHAIRMAN. And their meetings were important meetings?

Secretary DANIELS. Their meetings were meetings of high officers of both branches of the service. They meet now as before. I have had papers from them in the last 10 days—several. They meet fre-

quently and discuss matters of joint action between the Army and Navy, which they forward to the Secretary of War and the Secretary of the Navy.

The CHAIRMAN. Admiral Benson has testified that no complete plan of cooperation was gotten up by them.

Secretary DANIELS. Well, Mr. Chairman, during the war we did not have time to stop for meetings. Admiral Benson and Capt. Pratt and Gen. March and Gen. Hines, the high ranking officers of the Army and Navy, met, not stately, every day, but every Wednesday there was a meeting of the Secretary of War, the Secretary of the Navy, the Chief of Staff of the Army, and the Chief of Operations of the Navy, the head of the Shipping Board, and the head of the Food Administration to discuss all operations and everything that could be done. Every day Benson and March had a discussion; every day Pratt and his corresponding man in the Army discussed matters. They moved so rapidly and acted so perfectly in harmony with the Army and Navy they were able to do a tremendous work because of this joint operation. Now, I do not—

The CHAIRMAN. But not because of the board's operations—because of the action of the joint board?

Secretary DANIELS. Well, it might not have been an official meeting; but the board is composed, you understand, of these high ranking officers. Gen. March, of the Army, would have been on the board. Admiral Benson, of the Navy, would have been on the board. Other high ranking officers of each would have been members. So that you may state practically that board met and decided problems every day, but they did not regard it as a meeting of the board as in peace times. There was a perpetual meeting and deciding upon matters of action.

The CHAIRMAN. But Admiral Benson says he does not recollect any action taken in pursuance of the meetings of the board.

Secretary DANIELS. I told you that the board met in that way, that Gen. March and Admiral Benson met daily, and Capt. Pratt and his corresponding man of the Army met daily and decided problems and carried them out in operations; and the purpose of the board is what? The purpose of the board is to formulate plans and carry them out for joint operations. These plans were made and carried out immediately.

The CHAIRMAN. Oh, no; the admiral states that there was no complete plan for operations.

Secretary DANIELS. He means that we did not meet in war times, like they do in peace times, and discuss, for example, what shall be done at Cavite, what is the necessary cooperation in Panama, and so on.

The CHAIRMAN. He says that the joint action was not gotten out.

Secretary DANIELS. He meant by that that they did not have the peace-time joint action. They had joint action every day.

Senator PITTMAN. Now, let me interfere once more. Admiral Benson testified to all of this stuff which you said he did so and so, and some of it he did testify to, and according to my memory—

The CHAIRMAN. I think not, at all.

Senator PITTMAN. What is the use of reading it all over, of putting it all in again?

The CHAIRMAN. Yes; I could read all the testimony.
Senator PITTMAN. You know, before we get through with
we are going to be charged by the Senate with delay, and—
The CHAIRMAN. I have said that I thought we could go
with the Secretary to-day, if the Secretary will answer my
briefly.

Secretary DANIELS. I have answered briefly and told
to the old, formal peace-time meetings, the Joint Board
old such meetings during the war. As to actual meet-
ere meetings between Admiral Benson and Gen. M
etween the Secretary of War and myself, and between C
nd the corresponding officer in the Army. There was
uring the whole war that we did not have interchange o
on, and formal policies carried out immediately, const
very Wednesday we had formal meetings and meetings.
ut I do not think that the secretary of the Joint Board
alled meetings in the old-fashioned way to discuss an
ve decided each day, and we carried it out.

The CHAIRMAN. I must differ absolutely from the Sen
evada about the importance of these questions. I cons
s of very great importance, and I shall continue, of
sk them.

Secretary DANIELS. And I shall continue to answer.

The CHAIRMAN. And I expect that we can get through

Secretary DANIELS. I will answer as briefly as I can.

The CHAIRMAN. Your statement, Mr. Secretary, took
ays to make?

Secretary DANIELS. I was here about six or seven days
ight days.

The CHAIRMAN. I think it was at least eight days.

Secretary DANIELS. We were here Monday, Tuesday, W
hursday, and Friday; and then we were here Monday
ay of the next week; I was away Wednesday, and we
hink, on Thursday.

The CHAIRMAN. Yes; that is eight days.

Secretary DANIELS. Eight days.

Senator PITTMAN. How long has the cross-examination

The CHAIRMAN. So far, I think, this is the fourth day.

Secretary DANIELS. I have lost all reckoning of time. I
re not going to ask me questions as to the time, or how m
have been asked or answered, or any other witness has
r answered.

The CHAIRMAN. I am not. I do not know what the Sen
Nevada will do.

Secretary DANIELS. All right, Mr. Chairman.

Senator PITTMAN. I am anxious that we may have a
his before the conventions meet. I do not want to be cha
aving a delay in this matter.

The CHAIRMAN. If the Senator thinks we are purposely
t, he is very far from the purpose.

Senator PITTMAN. There is no indication of delay on your part except—

The CHAIRMAN. I want to get through as quickly as I can. I have many other duties to perform, as the Senator probably knows.

Senator PITTMAN. I know it; but the trouble is that the country does not know it.

The CHAIRMAN. Now, Mr. Secretary, on April 21, 1920, I sent the following letter to you [reading]:

APRIL 21, 1920.

To Hon. JOSEPHUS DANIELS,

Secretary of the Navy.

DEAR MR. SECRETARY: It is requested that the Navy Department furnish the following information to the Senate Subcommittee on Naval Affairs on or before Wednesday next, the 28th of April:

I. For each and every individual battleship on the Navy list on the 2d of February, 1917.

(a) State whether in full commission, in commission in reserve, in commission in ordinary, or out of commission.

(b) State exactly where located then.

(c) State number of days then necessary to make matériel repairs essential for war service.

(d) State number of rounds of shells then on board for main battery.

(e) State percentage of personnel then on board in terms of per cent of full war complements as 100 per cent.

II. For each and every individual battleship on the Navy list on the 6th of April, 1917:

(a) State whether in full commission, in commission in reserve, in commission in ordinary, or out of commission.

(b) State exactly where located then.

(c) State number of days then necessary to make matériel repairs essential for war service.

(d) State number of rounds of shells then on board for main battery.

(e) State percentage of personnel then on board in terms of per cent of full war complements at 100 per cent.

III. For each and every individual battleship on the Navy list on the 7th of April, 1917, which was then not in proper matériel condition for instant war service overseas and which then had not on board its full war complement of officers and men:

(a) State date upon which the making of necessary repairs was started.

(b) State date upon which the making of necessary repairs was completed.

(c) State yard (or other place) where repairs were made.

(d) State date upon which each ship obtained its full war complement of officers and men.

IV. State for each and every individual battleship its apportionment of reserve shells for its main battery in terms of rounds for each ship calculated from the total reserve of shells ready but not on board on the 7th of April, 1917.

V. For each and every individual cruiser on the Navy list on the 2d of February, 1917:

(a) State whether in full commission, in commission in reserve, in commission in ordinary, or out of commission.

(b) State exactly where located then.

(c) State number of days then necessary to make matériel repairs essential for war service.

(d) State number of rounds of shells then on board for main battery.

(e) State percentage of personnel then on board, full war complements being taken as 100 per cent.

VI. For each and every individual cruiser on the Navy list on the 6th of April, 1917:

(a) State whether in full commission, in commission in reserve, in commission in ordinary or out of commission.

(b) State exactly where located then.

(c) State number of days then necessary to make matériel repairs essential for war service.

(d) State number of rounds of shells then on board for main battery.

(e) State percentage of personnel then on board, full war complements being taken as 100 per cent.

VII. For each and every individual cruiser on the Navy list on the 7th of April, 1917, which was then not in proper matériel condition for instant war service overseas and which then had not on board its full war complement of officers and men:

- (a) State date upon which the making of necessary repairs was started.
- (b) State date upon which the making of necessary repairs was completed.
- (c) State yard (or other place) where repairs were made.
- (d) State date upon which each ship obtained its full war complement of officers and men.

VIII. State for each and every individual cruiser its apportionment of reserve shells for its main battery in terms of rounds for each cruiser calculated from the total reserve of shells ready but not on board the 7th of April, 1917.

IX. For each and every individual destroyer on the Navy list on the 2d of February, 1917.

- (a) State whether in full commission, in commission in reserve, in commission in ordinary, or out of commission.
- (b) State exactly where located then.
- (c) State number of days then necessary to make matériel repairs essential or war service.
- (d) State percentage of personnel then on board, full war complements being taken as 100 per cent.

X. For each and every individual destroyer on the Navy list on the 6th of April, 1917:

- (a) State whether in full commission, in commission in reserve, in commission in ordinary, or out of commission.
- (b) State exactly where located then.
- (c) State number of days then necessary to make matériel repairs essential or war service.
- (d) State percentage of personnel then on board, full war complements being taken as 100 per cent.

XI. For each and every individual destroyer on the Navy list on the 7th of April, 1917, which was then not in proper matériel condition for instant war service overseas and which then had not on board its full war complement of officers and men:

- (a) State date upon which the making of necessary repairs was started.
- (b) State date upon which the making of necessary repairs was completed.
- (c) State yard (or other place) where repairs were made.
- (d) State date upon which each destroyer obtained its full war complement of officers and men.

XII. State number of depth bombs for use on destroyers on hand and ready on April, 1917.

It is requested that the Navy Department's report in reply be accompanied by separate tabulation for battleships, cruisers, and destroyers as per the enclosed forms.

Very truly, yours.

FREDERICK HALE.

On April 29, 1920, I received the following letter:

APRIL 29, 1920.

1. FREDERICK HALE,
United States Senate, Washington, D. C.

MY DEAR SENATOR: Complying with your letter of April 21, 1920, in which you requested that the Navy Department furnish certain information for the Senate Subcommittee on Naval Affairs on or before Wednesday, the 28th day of April, I am forwarding you herewith, by direction of the Secretary, this information tabulated separately for battleships, cruisers, and destroyers, as requested.

Yours, respectfully,

B. F. HUTCHISON,
Captain, United States Navy,
Acting Chief of Naval Operations.

These tabulations have already been put into the record, but I would like to have them go in again at this point, as I wish to refer to them.

The tables referred to are here printed in the record as follows:)

Battleships.

Name of ship.	Paragraph I.					Paragraph II.							
	A	B	C	D	E					A	B	C	D
					Officers.				Men.				
					Line.	Reserve.	Staff.	War- rant.					
Arizona.....	Full commission..	Navy Yard, N. Y.....	62	1,200	109		100	91	93	Full com- mission.	Lynhaven Roads, Va...		1,209
Arkansas.....	do.....	Hampton Roads, Va...		1,200	103		100	100	72	do.....	Base No. 2.....		1,200
Delaware.....	do.....	Guantanamo, Cuba.....		1,250	100		100	91	76	do.....	do.....		1,250
Florida.....	do.....	do.....		1,000	100		100	100	67	do.....	do.....		1,000
Michigan.....	do.....	do.....		800	97		100	91	68	do.....	do.....		800
Nevada.....	do.....	do.....	26	1,000	106		100	100	86	do.....	New York; Norfolk.....	18	1,000
New York.....	do.....	do.....		1,000	97		100	109	82	do.....	Base No. 2.....	92	1,000
North Dakota.....	Reserve.....	New York; Norfolk.....	92	1,000	9		33	91	27	do.....	do.....		92
Oklahoma.....	Full commission..	Guantanamo, Cuba.....		1,000	103		100	91	85	do.....	do.....		1,000
Pennsylvania.....	do.....	do.....		1,200	106		100	118	100	do.....	do.....		1,200
South Carolina.....	do.....	do.....		800	94		67	91	66	do.....	do.....		800
Texas.....	do.....	Guaymas Bay.....		1,000	103		100	91	87	do.....	do.....		1,000
Utah.....	do.....	Guantanamo, Cuba.....		1,000	97		100	91	59	do.....	do.....		1,000
Wyoming.....	do.....	do.....		1,200	100		100	109	86	do.....	do.....		1,200
Connecticut.....	do.....	Off Cape Cruz, Cuba.....		1,200	197		100	100	80	do.....	do.....		1,200
Alabama.....	Reserve.....	New York; Philadelphia.....	60	240	88		33	100	34	Reserve.....	do.....		240
Rhode Island.....	do.....	New York; Boston.....	34	1,240	20		33	73	29	Full com- mission.	Base No. 1.....		1,240
Georgia.....	do.....	do.....	166	1,240	15		33	73	25	Reserve.....	Navy Yard, Boston.....	65	1,240
Illinois.....	do.....	Vera Cruz, Mexico.....	89	240	113		100	100	57	do.....	New York, N. Y.....	65	240
Indiana.....	Out of commission	New York; Philadelphia.....	40							Out of commiss- sion.	New York; Philadelphia.....	40	
Iowa.....	do.....	do.....	27							do.....	do.....	27	
Massachusetts.....	do.....	do.....	33							do.....	do.....	26	
Kansas.....	Reserve.....	do.....	135	1,200	15		33	64	35	Reserve.....	do.....	60	1,200
Kearse.....	do.....	New York; Boston.....	84	840	63		33	88	36	do.....	New York; Boston.....	19	840
Kentucky.....	do.....	New York, N. Y.....	98	852	88		67	126	34	do.....	New York, N. Y.....	23	852
Louisiana.....	do.....	New York; Norfolk.....	47	1,200	26		67	77	30	do.....	Base No. 1.....	1,200	1,200
Maine.....	do.....	Savannah, Ga.....	30	240	38		67	73	50	do.....	New York, N. Y.....	30	240

[illegible]

Battleships—Continued.

Name of ship.	Paragraph II—Continued.				Paragraph III.			Paragraph IV.	
	E				A	B	C	D	
	Officers.							Officers.	Men.
	Line.	Reserve.	Staff.	War-rant.					
Arizona.....	106		100	91				December, 1917	January, 1918.
Arkansas.....	100	20	100	100				November, 1917	December, 1917
Delaware.....	106		100	91				August, 1918.	October, 1917.
Florida.....	128		100	100					do.
Michigan.....	100		100	91				January, 1918.	July, 1917
Nevada.....	106		100	100				do.	January, 1918
New York.....	106	20	100	109				October, 1917.	October, 1917.
North Dakota.....	71		67	91	July 1, 1918	Sept. 30, 1918	New York, N. Y.	February, 1918.	November, 1917.
Oklahoma.....	100		100	91				do.	do.
Pennsylvania.....	106		100	109				October, 1917	March, 1917
South Carolina.....	103		100	91				February, 1918	May, 1917
Texas.....	106	20	100	91				December, 1917	October, 1917
Utah.....	108		100	100				February, 1918	December, 1917
Wyoming.....	95		100	100				October, 1917	November, 1917
Connecticut.....	111		100	100				February, 1918	July, 1917
Alabama.....	150		67	100				May, 1918	August, 1917
Rhode Island.....	52		67	91	Dec. 20, 1915	July 16, 1917	New York, Boston	do.	September, 1917
Georgia.....	22		100	91	Mar. 13, 1917	June 10, 1917	New York, N. Y.	May, 1918	do.
Illinois.....	150	5	100	100		Oct. 1, 1917	New York, Philadelphia	July, 1918.	(1)
Indiana.....						do.	do.	(1)	(1)
Iowa.....						Oct. 9, 1917	do.	(1)	(1)
Massachusetts.....	49		67	73	Sept. 30, 1916	July 9, 1917	do.	February, 1918	September, 1917
Kansas.....	25		67	100	Oct. 15, 1916	Apr. 25, 1917	New York, Boston	April, 1918	November, 1917
Kearsarge.....	25	17	67	100	Jan. 1, 1917	Apr. 25, 1917	New York, N. Y.	do.	do.
Kentucky.....	32		100	91				February, 1918	August, 1917
Louisiana.....	32		67	73	Apr. 1, 1917	Aug. 1, 1917	New York, N. Y.	February, 1918	September, 1917
Maine.....	39		67	82				April, 1918	August, 1917
Minnesota.....	53	20	67	82	Aug. 30, 1916	May 6, 1917	New York, Philadelphia	February, 1918	September, 1917
Missouri.....	9		67	73	Oct. 24, 1916	Apr. 13, 1917	New York, Boston	July, 1918.	September, 1917
Nebraska.....	49	10	67	82	July 10, 1917	Mar. 23, 1917	New York, Norfolk	February, 1918.	January, 1918
New Hampshire.....	35		67	82				do.	September, 1917
New Jersey.....	49	50	100	91				do.	October, 1917
Ohio.....	9		67	73	May 16, 1917	May 6, 1917	New York, N. Y.	May, 1918	do.
Oregon.....	63		67	88	Aug. 25, 1917	Apr. 7, 1919	New York, Philadelphia	February, 1918	(1)
Vermont.....	44		67	82	Aug. 25, 1917	Apr. 4, 1917	New York, Mare Island	March, 1918.	September, 1917
Virginia.....	33		67	91	Sept. 12, 1916	Aug. 27, 1917	New York, Philadelphia	April, 1918	do.
Wisconsin.....	38		67	100	Aug. 30, 1916	May 6, 1917	New York, Boston	February, 1918	October, 1917
							New York, Philadelphia	April, 1918	October, 1917

¹ Had on board 20 to 40 per cent of allowed complement under training and it is difficult or impossible to tell exact date when ship's complement, exclusive of those under training, was filled.

² Very old vessel and never had full complement on board.

³ Not filled.

Paragraph VI.												
Name of cruiser.	A	B	C	D	E				A	B	C	
					Officers.							
					Line.	Re-serve.	Staff.	War-rant.				
												Men.
Fueblo.....	Reserve.....	San Francisco.....	33	600	33		67	73	79	Reserve.....	Pichilique Bay, Mexico.....	
Nederick.....	do.....	Navy yard, Puget Sound.....	38	600	38		67	82	43	do.....	En route San Francisco.....	
North Carolina.....	do.....	Navy yard, Portsmouth.....	23	360	23		67	73	40	do.....	Navy yard, Portsmouth.....	
Suntington.....	do.....	San Diego, Calif.....	57	600	33		67	82	56	do.....	Navy yard, Mare Island.....	
San Diego.....	Full commission.....	do.....	72	600	95		100	100	100	do.....	do.....	
South Dakota.....	Reserve.....	Navy yard, Puget Sound.....	84	600	33		67	73	50	do.....	Navy yard, Puget Sound.....	
Montana.....	Full commission.....	Guacanayabo Bay.....	360	45	45		100	100	52	Full commission.....	Wynn, Md.....	
Pittsburgh.....	Reserve.....	Puget Sound.....	600	60	67		67	73	44	do.....	San Diego, Calif.....	
Seattle.....	Full commission.....	Guantanamo Bay.....	360	64	100		100	91	73	do.....	Base No. 2.....	
Charleston.....	Reserve.....	Porto Bello, Panama.....	2,800	27	67		67	67	49	Reserve.....	Balboa, Panama.....	
St. Louis.....	do.....	Honolulu, Hawaii.....	2,800	27	100		100	44	36	do.....	Honolulu, Hawaii.....	
Rochester.....	do.....	Puget Sound.....	75	21	67		100	100	42	do.....	Puget Sound.....	
Brooklyn.....	Full commission.....	Manila, P. I.....	816	79	113		67	113	95	Full commission.....	Manila, P. I.....	
Chicago.....	Reserve.....	New York; Philadelphia.....	1,065	22	33			33	38	Reserve.....	New York; Philadelphia.....	
Minneapolis.....	Out of commission.....	do.....								Out of commission.....	do.....	
Columbia.....	Full commission.....	Warrington, Fla.....	600	43	67		67	80	80	Full commission.....	Hampton Roads, Va.....	
Marblehead.....	do.....	Puget Sound.....	38	100	100		100	100	19	Reserve.....	Puget Sound.....	
Montgomery.....	do.....	Guaymas, Mexico.....		56	80		100	80	60	do.....	Puget Sound.....	
New Orleans.....	do.....	New York; Boston.....	106							Out of commission.....	New York; Boston.....	
Salem.....	Out of commission.....											
Albany.....	Full commission.....	New York; Puget Sound.....	28	2,500	77		100	20	90	Full commission.....	Martha's Vineyard, Mass.....	
Birmingham.....	Reserve.....	New York, N. Y.....	80	500	20		120	52	52	do.....	New York, N. Y.....	
Chester.....	do.....	New York; Boston.....	33	500	20		50	60	35	do.....	President Roads, Mass.....	
Cleveland.....	do.....	New York; Mare Island.....	28	11	11				12	do.....	En route Hampton Roads.....	
Cincinnati.....	Full commission.....	Shanghai, China.....		1,500	77		100	20	63	do.....	Nanking, China.....	
Chattanooga.....	do.....	New York; Mare Island.....	58	2,000	80		100	20	94	do.....	New York; Mare Island.....	
Denver.....	do.....	Nicaragua.....		2,000	80		100	20	98	do.....	Colon.....	
Des Moines.....	do.....	Alexandria, Egypt.....		2,000	73		100	25	94	do.....	Alexandria, Egypt.....	
Galveston.....	do.....	Manila, P. I.....		1,980	73		100	25	90	do.....	Manila, P. I.....	
Boston.....	do.....			(1)						do.....		
Out of commission.....	do.....	Santo Domingo.....		2,520	86		100	88	98	Out of commission.....	Lynnhaven Roads, Va.....	
Olympia.....	Full commission.....	Salina Cruz, Mexico.....		1,600	100		100	20	98	Full commission.....	New York; Mare Island.....	
Raleigh.....	do.....	Tampico, Mexico.....		2,000	73		100	25	98	do.....	Tampico, Mexico.....	
Tacoma.....	do.....									do.....		

1 To be sold.

Cruisers—Continued.

Name of cruiser.	Paragraph VI—Continued.				Paragraph VII.					Para- graph VIII.	
	D	E			A	B	C	D			
		Officers.						Officers.	Men.		
		Line.	Re- serve.	Staff.							War- rant.
Pueblo.....	600	57		67	73	70			January, 1918.....	May, 1917.....	1,200
Frederick.....	600	57		67	82	46			do.....	August, 1917.....	1,200
North Carolina.....	360	23		67	91	36	Oct. 20, 1916	Portsmouth.....	September, 1917.....	September, 1917.....	1,080
Huntington.....	600	52		67	82	53	Feb. 10, 1917	Mare Island.....	May, 1917.....	July, 1917.....	1,200
San Diego.....	600	43		67	73	51	Feb. 16, 1917	do.....	September, 1917.....	June, 1917.....	1,200
South Dakota.....	600	48		67	82	48	Nov. 29, 1916	Puget Sound.....	January, 1918.....	July, 1917.....	1,200
Montana.....	360	45		100	100	53			do.....	do.....	1,080
Pittsburgh.....	600	90		100	100	100			October, 1917.....	March, 1917.....	1,200
Seattle.....	360	105		67	100	94			December, 1917.....	April, 1917.....	1,080
Charleston.....	2,800	27		67	77	44			September, 1917.....	July, 1917.....	2,320
St. Louis.....	2,800	33		100	67	39			July, 1917.....	August, 1917.....	2,320
Rochester.....	600	21			100	40	Apr. 30, 1917	Puget Sound.....	November, 1917.....	do.....	1,200
Brooklyn.....	816	71		100	100	80	Sept. 16, 1916		(¹)	May, 1917.....	1,633
Chicago.....	1,065	11			50	35	Aug. 15, 1917	Philadelphia.....	September, 1917.....	August, 1917.....	2,310
Minneapolis.....	600	50		67	113	84	Sept. 14, 1917	do.....	January, 1917.....	July, 1917.....	1,080
Columbia.....	200	100			200	18	May 14, 1917	Puget Sound.....	January, 1918.....	April, 1917.....	540
Marblehead.....					100	14			do.....	October, 1917.....	4,500
Montgomery.....									December, 1917.....	November, 1917.....	
New Orleans.....	2,500	89		100	80	55	Apr. 6, 1917	Puget Sound.....	March, 1918.....	August, 1917.....	3,000
Salem.....							Nov. 1, 1917	Boston.....	December, 1917.....	July, 1917.....	1,100
Albany.....	2,500	89		100	26	99			January, 1918.....	April, 1917.....	3,000
Birmingham.....	600	80	50	100	120	64			May, 1917.....	do.....	600
Chester.....	500	80		100	140	78			do.....	May, 1917.....	600
Cleveland.....	500	89		100	20	100			January, 1918.....	March, 1917.....	4,400
Cincinnati.....	1,500	100		100	20	91			August, 1918.....	April, 1917.....	1,900

[illegible]

Not filled

Destroyers.

Name of ship.	Paragraph IX.				Paragraph X.		
	A	B	C	D	A	B	C
				Line offi- cers.			
Allen.....	Full commission.	Boston.....	15	100	Full commission.	Yorktown.....	10
Ammen.....	Operating with reduced complement.	Philadelphia.....	30	50	do.	New York.....	20
Aylwin.....	Full commission.	Guantanamo.	45	125	do.	Charleston.....	20
Bainbridge.....	do.	Cavite.....	24	100	do.	Asiatic station.	20
Bach.....	do.	Guantanamo.	25	125	do.	Norfolk.....	100
Barry.....	do.	Cavite.....	100	50	do.	Asiatic station.	20
Beale.....	Operating with reduced complement.	Philadelphia.....	100	50	do.	Philadelphia.....	100
Benham.....	Full commission.	Norfolk.....	15	125	do.	Yorktown.....	20
Burrows.....	Operating with reduced complement.	New York.....	35	50	do.	New York.....	10
Cassin.....	Full commission.	Guantanamo.	20	125	do.	Norfolk.....	13
Chauncey.....	do.	Cavite.....	18	100	do.	Asiatic station.	20
Conyngham.....	do.	Guantanamo.	42	100	do.	Norfolk.....	30
Cummins.....	do.	do.	65	125	do.	Yorktown.....	30
Cushing.....	do.	do.	2	100	do.	New York.....	12
Dale.....	do.	Cavite.....	2	210	do.	Asiatic station.	20
Decatur.....	do.	Guantanamo.	25	25	do.	New York.....	20
Downes.....	Ordinary.	Cavite.....	30	100	Ordinary.	Asiatic station.	30
Drayton.....	Full commission.	Philadelphia.....	30	125	Full commission.	Philadelphia.....	30
Duncan.....	do.	Guantanamo.	30	125	do.	Jacksonville.....	30
Ericsson.....	do.	do.	30	125	do.	Boston.....	15
Fanning.....	do.	do.	30	100	do.	Yorktown.....	2
Fusser.....	Operating with reduced complement.	Charleston.....	6	67	do.	do.	2
Henley.....	do.	New York.....	24	50	do.	New Orleans.....	130
Hopkins.....	Reserve.	Mare Island.....	60	50	do.	New York.....	60
Hull.....	do.	do.	100	40	Reserve.	San Pedro.....	12
Jacob Jones.....	Full commission.	Delaware Breakwater to Philadelphia.	20	125	do.	Mare Island.....	20
Jarvis.....	do.	Guacanayabo Bay.	30	100	Full commission.	Hampton Roads.....	24
Jouett.....	Operating with reduced complement.	Philadelphia.....	40	50	do.	Philadelphia.....	40

McDougall	Full commission	Guantanamo	20	200	47	do	Mare Island	45
Mayrant	do	do	50	100	80	Full commission	Galveston	46
Monegan	Out of commission	Philadelphia	25	125	87	do	Philadelphia	38
Nicholson	Full commission	Yokaburg	45	100	80	Out of commission	York River	30
O'Brien	do	Guantanamo	34	50	67	Full commission	Key West	45
Parker	do	do	25	125	88	do	York River	15
Patterson	do	Boston	20	125	91	do	do	12
Paulding	Operating with reduced complement	do	30	50	63	do	Boston	10
Paul Jones	Full commission	Philadelphia	29	50	83	do	do	24
Perkins	Reserve	Mare Island	90	41	35	Reserve	San Francisco	90
Perry	Ordinary	Charleston	15	50	35	Ordinary	Charleston	14
Porter	Reserve	Keyport, Wash	45	100	43	Reserve	Keyport, Wash	45
Preble	Full commission	Guantanamo	30	125	80	Full commission	York River	30
Preston	Reserve	Mare Island	45	100	41	Reserve	Mare Island	8
Raid	Full commission	New York	25	67	46	Full commission	New York	25
Roe	do	Charleston	27	67	64	do	Key West	1
Rowan	do	do	34	50	59	do	Savannah	20
Sampson	do	Pensacola	10	125	98	do	York River	10
Smith	do	New York	19	125	84	do	Norfolk	10
Starrett	do	New Orleans	16	67	88	do	New York	16
Stewart	do	Vicksburg, Miss	43	50	53	do	Charleston	30
	do	Mare Island	12	58	58	do	At sea, Central American waters	12
Terry	do	New York	72	50	47	do	Charleston	3
Tripp	do	Boston	35	50	51	do	New York	35
Truxton	do	Puget Sound	90	56	56	do	Cristobal	90
Truett	do	Guantanamo	15	125	83	do	At sea, North Atlantic	25
Wedgworth	do	do	10	125	82	do	York River	40
Wainwright	do	do	20	100	96	do	do	40
Walt	do	Norfolk	60	50	54	do	New York	20
Warrington	do	Whitstone	38	50	54	do	Boston	32
Whipple	do	Mare Island	150	100	52	do	Boston	160
Wilkes	do	Guantanamo	30	125	94	do	York River	25
Winslow	do	do	30	125	86	do	do	10
Worden	do	Beaufort, N. C	10	100	51	do	Galveston	4
Shaw	do							

1 Built at Mare Island; commissioned Apr. 9, 1917; completed May 25, 1917; sailed from Mare Island May 26, 1917.

Destroyers—Continued.

Name of ship.	Paragraph X— Continued.		Paragraph XI.					
	Officers.		Men.	A	B	C	D	
	Line.	Re- serve.					Officers.	Men.
				1917.	1917.		1917.	
Allen.....	100		98	Jan. 23 May 1	Feb. 11 May 21	Boston. Philadelphia; fitting out, distant service.	May.....	1917. April.
Ammon.....	100		100	Mar. 31 May 5	Apr. 8 June 1	New York Philadelphia; fitting out, distant service.	August.....	March.
Aywin.....	100		95	Mar. 11 Apr. 28	Apr. 12 June 14	Charleston Norfolk.	April.....	April.
Bainbridge.....	100		100	Mar. 29 June 3	Apr. 20 Aug. 1	Cavite. Cavite and Olongapo.	January 1.....	March.
Balch.....	100		100	Apr. 13 Apr. 29	July 2 Apr. 20	Norfolk. Cavite and Olongapo.	April.....	Do.
Barry.....	100		100	June 3 May 1	Aug. 1 Sept. 1	Cavite and Olongapo. Philadelphia.	November.....	Do.
Beale.....	100		75	Apr. 24 Feb. 28	May 9 Apr. 4	Norfolk; to fit out, distant service. New York.	July.....	May.
Benham.....	125		84	May 4 Apr. 26	June 2 May 4	Philadelphia. Norfolk.	July.....	May.
Burrows.....	100		100	July 1 Feb. 16	July 14 Mar. 28	Olongapo. Boston.	November 1.....	April.
Cassin.....	100		90	Apr. 8 June 1	Mar. 18 June 9	Boston and New York; to fit out, distant service. Philadelphia.	May.....	May.
Chauncey.....	125		91	Mar. 13 Mar. 20	May 13 Aug. 1	New York. Olongapo and Cavite.	July.....	Do.
Conyngham.....	125		100	Mar. 31 Apr. 14	Apr. 10 Apr. 23	New York; preparing for final trials and fitting out, distant service.	September.....	Do.
Cummings.....	125		100	Jan. 3 July 1	Feb. 21 Aug. 18	Olongapo and Cavite. Philadelphia.	July.....	Do.
Cushing.....	150		100	Mar. 31 May 3	Aug. 7 May 21	Olongapo and Cavite. Boston.	September.....	Do.
Dale.....	100		100	July 1 Mar. 31	Aug. 18 Apr. 7	Philadelphia. Charleston.	May.....	July.
Davis.....	100		100	May 3 Apr. 27	May 4 May 19	Damaged by collision May 11, 1917. New York; to fit out, distant service.	July.....	April.
Decatur.....	100		100	Apr. 13 Nov. 10	Feb. 10 July 31	Philadelphia. Charleston. do.	August.....	March.
Downes.....	25		100	July —	July 31		May.....	May.
Drayton.....	100		90					
Duncan.....	125		91					
Erie.....	125		100					
Fanning.....	100		100					
Flusser.....	133		76					

Jarvis.....	125	98	Apr. 29	41	Mare Island.	July.	Do.
Jouett.....	100	90	Mar. 10	May 7	Boston; fitting out, distant service.	November.	Do.
	100	50	Apr. 19	May 10	Philadelphia.	July.	Do.
			Mar. 28	Apr. 10	Philadelphia; 14 days' repair between dates given; boilers faulty.	February 1.	Do.
Jenkins.....	100	81	Apr. 20	May 2	New York.	May.	May.
			May 2	May 21	Norfolk.		
			May 2	May 16	Boston; to fit out, distant service.		
Lamson.....	133	82	May 20	May 16	Norfolk.		June.
Lawrence.....	150	45	July 6	July 16	Charleston.		Do.
McDonough.....	200	55	Apr. 11	July 2	Mare Island.	November.	Do.
McCall.....	100	80	June 18	July 3	Charleston.	do.	Do.
			Mar. 10	May 23	Philadelphia.		Do.
McDougall.....	125	94	July 3	Aug. 3	Boston.		Do.
Mayrant.....	100	92	Apr. 15	Apr. 23	New York; to fit out, distant service.	April.	April.
Monaghan.....	100	75	Dec. 9 ^a	Mar. 14 ^b	Philadelphia; out of commission.	February 1.	February 1.
Nicholson.....	150	95	May 3	June 19	Charleston; fitting out, distant service.	November.	Do.
O'Brien.....	125	100	Apr. 27	May 13	New York; to fit out, distant service.	March.	March.
Parker.....	125	93	May 1	do.	do.	April.	April.
			do.	June 15	Norfolk.		May.
Patterson.....	100	84	Oct. 12 ^a	Apr. 9	Boston.	July.	Do.
Paulding.....	100	54	May 7	May 24	Boston; fitting out, distant service.	do.	Do.
Paul Jones.....	150	50	May 1	May 21	Boston.	May.	Do.
					No definite record; was at Cristobal, Canal Zone, May 15 to June 30, 1917.		Do.
Perkins.....	100	45	(^c)	Mar. 23	Charleston.	July.	Do.
			May 5	May 20	New York.	June.	June.
Perry.....	100	50	Feb. 15	June 20	Puget Sound; removal of tall shaft.	April.	April.
Porter.....	125	97	Apr. 16	Apr. 20	Boston; fitting out, distant service.	June.	June.
Preble.....	100	52	Nov. 4 ^d	Apr. 24	Mare Island.		Do.
			June 7	June 14	New York.		Do.
Preston.....	133	60	June 7	July 21	Charleston.	February 1.	Do.
			do.	do.	do.	Do.	Do.
Raid.....	133	40	Nov. 25 ^e	Mar. 4	New York; fitting out, distant service.	April.	April.
Roe.....	100	97	Jan. 13	Apr. 4	do.	July.	July.
Rowan.....	125	33	Apr. 25	May 13	do.	April.	April.
Sampson.....	125	33	do.	do.	do.		Do.
Smith.....	133	95	Feb. 15	Apr. 4	New York; condenser work.	July.	July.
			May 17	July 15	Charleston; condenser work.	June.	June.
Sterett.....	100	54	Mar. 29	Apr. 28	Boston.	November.	March.
Stewart.....	150	100	May 3	May 19	Philadelphia; to fit out, distant service.	July.	July.
Terry.....	100	47	July 20	Aug. 12	Charleston.	May.	May.
			Nov. 23 ^f	Feb. 24	Boston.	March.	March.
Tripp.....	100	72	May 4	May 21	Boston; fitting out, distant service.	June.	June.
			Feb. 12	Feb. 18	Mare Island.		Do.
Truxton.....	150	100	May 6	June 3	Balboa, Canal Zone.		Do.
Tucker.....	125	98	Apr. 30	May 5	Boston; to fit out, distant service.		Do.

1 1918.

* Sunk.

* 1916.

* Summer, 1916.

* December, 1916

Destroyers—Continued.

Name of ship.	Paragraph X— Continued.			Paragraph XI.				
	Officers.		Men.	A	B	C	D	
	Line.	Re- serve.					Officers.	Men.
Wadsworth.....	125		100	1917. Mar. 27	1917. Apr. 4	Norfolk.....	1917.	1917. March.
Wainwright.....	100	200	96	Apr. 16	Apr. 24	Boston; fitting out, distant service.....		}	Aprl.
Walke.....	100		60	do.	do.	do.	}		May.
Warrington.....	100		70	Apr. 6	Apr. 25	New York.....		}	Do.
Whipple.....	150		100	May 3	May 19	Charleston.....	}		March.
Wilkes.....	125		98	May 1	May 21	Boston; to fit out, distant service.....		}	Aprl.
Winslow.....	125		100	July 20	Aug. 12	Philadelphia; to fit out, distant service; realign shafting of port engine.....	}		March.
Worden.....	100		60	May 1	June 7	New York.....		}	May.
				Apr. 27	May 4	New York; to fit out, distant service.....	}		June.

The CHAIRMAN. I have; yes.

Senator PITTMAN. Do I understand that this is a codification of the statement?

The CHAIRMAN. A codification of certain matters in the statement. Secretary DANIELS. Were they made up by the Navy Department?

The CHAIRMAN. No; they were not.

Secretary DANIELS. Who made them up?

The CHAIRMAN. They were made up in my office.

Senator PITTMAN. Is it an argument, or evidence?

The CHAIRMAN. I think it is evidence deducible from this statement.

Secretary DANIELS. I think it is important to know what expert made them up, if they were not made up by yourself.

The CHAIRMAN. They were not made by an expert. They were made in my office, and if there are mistakes here they can readily be corrected by the experts of the department.

Secretary DANIELS. If you ask me questions about that, I will say that you will find all the information about this in the testimony of Admiral McKean, who was assistant to the Chief of Operations for matériel.

The CHAIRMAN. These show a general summary of the preparedness of vessels. They cover all of the vessels given in this tabulation, whether in or out of commission.

First, there is a general summary of preparedness of vessels as to matériel and personnel. Under "Matériel" are given those that are fit to fight and those that are unfit to fight. Under those that are fit to fight are given the percentages of each class of vessel. Under those unfit to fight—

Secretary DANIELS. You say "fit to fight"?

The CHAIRMAN. Yes.

Secretary DANIELS. Whose opinion is that?

The CHAIRMAN. It is taken from your information in this statement here [indicating tables].

Secretary DANIELS. Well, I do not think those figures used the words "fit to fight," and "unfit to fight." I have not examined them, but I do not think they give any such statement as that. I do not think you ought to put in the record—

Senator PITTMAN. I do not see anything on this statement here—

Secretary DANIELS. I do not think you ought to put in the record, and I protest against the statement going into the record, "fit to fight," and "unfit to fight": "full manned," and "not full manned," unless it is stated by an expert.

Senator PITTMAN. I object to the introduction of this as a member of the committee, on the ground that it is not evidence.

The CHAIRMAN. I will make corrections of any kind that are proper, but this matter I wish to have go into the record.

Secretary DANIELS. I submit, Mr. Chairman, you have no right to make a statement here, nor anybody else, headlined "fit to fight," or "unfit to fight," and based upon the statement, unless you do it from Admiral McKean, who is the officer in charge of that work, or official documents.

The CHAIRMAN. This statement was given me by Capt. B. H. Hutchison, in response——

Secretary DANIELS. Does that statement say "fit to fight"?

The CHAIRMAN. I will come to that later; I am entirely willing to make any changes that are proper. If it does not say "fit to fight," it should not be in here. This statement was in response to my request to you as Secretary of the Navy to furnish me with the information.

Secretary DANIELS. If that kind of testimony or arguments are to go in the record——

The CHAIRMAN. Do you not think I have a right to take these figures and deduce whatever I can from them? I have a right to take those figures——

Secretary DANIELS. But you have no right, unless you are a witness, to testify about them. I think you have a right in your report to make any deduction you want to.

The CHAIRMAN. I think I have a right to put in these figures.

Secretary DANIELS. I do not think you have the right to put in the record a statement "fit to fight" and "unfit to fight."

The CHAIRMAN. I say that I am perfectly willing to change that, if it is not borne out. I will look it up.

Senator PITTMAN. Suppose you put the expert on, and let him be cross-examined as any other witness.

Secretary DANIELS. If you will call Admiral McKean here, and put the expert on, and let them discuss each ship, you will have something of value.

The CHAIRMAN. I do not want anything down except what appears in this statement, but I have a perfect right to put in anything that appears in this statement, and I intend to do so.

Secretary DANIELS. That is in the statement; but you have no right to take that statement and put the characterization "fit to fight" or "unfit to fight."

The CHAIRMAN. I say I am perfectly willing to change that, and if it is not borne out I will change it. I will look over the letter.

Secretary DANIELS. Who is going to say?

The CHAIRMAN. Unless I can show that it is borne out we will make the necessary change in that "fit to fight" and "unfit to fight."

Secretary DANIELS. How are you going to say whether it is borne out or not?

The CHAIRMAN. If you will allow me to look it over I will inform you in a very short time.

Secretary DANIELS. I submit, before that goes into the record that Admiral McKean, who is aid for personnel, shall go over that. He was here during the whole war, and knows all about it, and I insist that he shall examine it and he shall report upon it. Some nameless man, or somebody, is putting up a question of "fit to fight" and "unfit to fight."

The CHAIRMAN. I have already told you, Mr. Secretary, that that will be changed if necessary. I want to go over this letter and see if that is borne out.

Secretary DANIELS. Yes; but you are putting that out——

tion like that is a suggestion that should not be made.

The CHAIRMAN. I propose to put this statement in and correct it if it is not proper.

Secretary DANIELS. This statement?

The CHAIRMAN. Yes.

Secretary DANIELS. Before it goes in I shall insist, and if I have any rights in God's world, I shall demand, that Admiral McKean go over it.

The CHAIRMAN. Admiral McKean can go over it afterwards.

Secretary DANIELS. It ought not to go into the record, in all fairness, until Admiral McKean has gone over it.

The CHAIRMAN. I can not agree with you, Mr. Secretary. Now, if you will wait a minute, I will go over this letter.

Secretary DANIELS. Go ahead. Before you go further, Mr. Chairman, I want to call your attention to the fact that there never was a ship in the world that some officer would not like to have additions to it.

The CHAIRMAN. Now, Mr. Secretary, in my letter to you, in paragraph 3, I state:

For each and every individual battleship on the Navy list on the 7th of April, 1917, which was then not in proper material condition for instant war service overseas, which then had not on board its full war complement of officers and men—

The words "fit to fight," if you object to them, will go out, and we will put them—

Secretary DANIELS. I object to the whole statement.

The CHAIRMAN. I say the words "fit to fight" will go out.

Secretary DANIELS. I object to the whole statement. It is misleading, incorrect, and unfair.

The CHAIRMAN. Will you allow me to finish my statement?

Secretary DANIELS. Oh!

The CHAIRMAN. And in place of those words I will put in "not in condition for instant war service overseas."

Secretary DANIELS. I object to that statement, and I say if this statement is to go in at all this committee ought to have experts who know these material conditions before this committee for cross-examination and they ought to go over each question. Suppose they say, "We want to have 10 days' repairs on a ship." It is material to know what that 10 days' repairs consist of. Sometimes a repair on a ship does not affect at all its ability to fight or its conditions or ability to go overseas.

The CHAIRMAN. All this information is gotten from the tabulation made up by the department, and all of that is perfectly proper to go in the record, and the tabulation itself has already gone in.

Secretary DANIELS. I insist if that table goes in that right under it goes the statement of Admiral McKean showing what those repairs were, whether they were essential for fighting or to go to sea. There is a very great difference. We put on the record like this, for instance: A captain says, "I have a ship; I want it to go to the navy yard for overhaul." Ninety per cent of the things he wants done

are perfectly immaterial about fitness to fight. The ship can fight with or without them. So that is utterly misleading.

The CHAIRMAN. If the Secretary objects to this going in, I will take the matter up with the committee and we will decide whether or not it shall go in.

Senator PITTMAN. My objection to it is this—

The CHAIRMAN. I can see no objection myself at all. It is entirely based on figures you have given us, and I take it that I have a perfect right to have prepared any deductions I see fit from these figures, and if they are not correct later you can show that they are not correct.

Secretary DANIELS. Later? When is Admiral McKean coming back to show that they are not correct?

The CHAIRMAN. We will allow the admiral to make a statement to explain this.

Senator PITTMAN. My objection is based on this ground, that there is nowhere a question in regard to the accuracy of this statement, and I think the accuracy of this statement is of vast importance to this committee. You state that there is a computation made here from an official piece of evidence. The official evidence, in compliance with your letter, divided it as follows: "Full commission, reserve, out of commission, ordinary, operating with reduced complement, very old vessels, never had full complements on board." Those are the divisions made in this. Now, from those divisions in that official document you are making up an entirely different division and you are handing it in here as someone's conclusions drawn from this official document. Now, it is nothing but a conclusion, and a conclusion has no weight at all unless it is by someone competent to form a conclusion. I would like to have the person who prepared this compilation, if it is worth anything—I have not looked it over—sit down here and tell us how he prepared it.

The CHAIRMAN. I think I can tell how it is prepared.

Senator PITTMAN. If you are willing to go on the stand with regard to it, it will undoubtedly become evidence.

Secretary DANIELS. I suggest that the chairman of the committee be called as a witness and be sworn.

The CHAIRMAN. I do not think it is necessary. I am simply putting in a piece of evidence.

Secretary DANIELS. I submit that you have no right to testify unless you are sworn. If you are going to put that in—

The CHAIRMAN. I am going to put it in, and if anything—

Secretary DANIELS. You can not put it in fairly, unless you swear to it, as evidence.

The CHAIRMAN. Can I not ask you questions, and can I not use this in asking you questions?

Secretary DANIELS. Yes; but you can not put that in on a false basis. I shall refuse to answer any question upon a false basis.

The CHAIRMAN. After this has been put in, Admiral McKean or anybody else can go over it.

Secretary DANIELS. Before it is put in.

The CHAIRMAN (continuing). And find out any mistakes that are there, and any mistakes will be immediately corrected.

The CHAIRMAN. Precisely; but that can be done afterwards.

Secretary DANIELS. Not at all. It must not go in before that is done, because if you put it in before you will put a false statement in the record.

The CHAIRMAN. How do you know it is a false statement?

Secretary DANIELS. Because I know there is no statement of that kind, "fit to fight" and "unfit to fight."

The CHAIRMAN. I have already told you that we will change the words "fit to fight," and make it "in proper material condition for instant service overseas."

Secretary DANIELS. If you are prepared to go on the stand as a witness and take them—I decline, if I have any authority on earth, to stand for any such characterizations of the ships, based upon somebody's statement, that nobody knows who did it. Let the person who made it come before this committee and go on the stand before it goes in.

The CHAIRMAN. I have told you what I propose to do.

Secretary DANIELS. Well, I am impotent—

The CHAIRMAN. To put in this tabulation, and if there is any trouble in the tables, if there are any mistakes, they can be corrected and will be corrected, and we will be glad to correct them.

Secretary DANIELS. I submit, then, Mr. Chairman, that I have a perfect right to ask, as to this statement, anything that I please, without cross-examination, or to send anybody in America to make some characterization, without it.

The CHAIRMAN. How do you mean, "without cross-examination"?

Secretary DANIELS. I mean this statement ought not to go in unless it is cross-examined on.

The CHAIRMAN. I am perfectly willing to have you ask any questions about this statement as we go along.

Secretary DANIELS. Whenever you will take the stand and qualify as a witness before the committee, I will send for Admiral McKean and have him here to ask you questions, and then it can go in.

The CHAIRMAN. Admiral McKean can ask any questions he wants to about it.

Secretary DANIELS. It can not go in, it ought not to go in, in fairness, before it is cross-examined.

The CHAIRMAN. We will take that up with the committee.

Secretary DANIELS. I have no authority, but I have a right to protest to the American people against this thing.

The CHAIRMAN. I can not imagine any objection to having anything go in that has to do with the question of preparedness of the Navy.

Secretary DANIELS. Let everything go in; but this is not preparedness of the Navy; this is an analysis of the ships, that has no justification.

Senator PITTMAN. I do not care whether Admiral McKean examines it or who examines it; I am not concerned with that matter. I think any witness can come here as a witness the same as any other witness and give testimony, and then he will be subject to cross-

examination as to his qualifications to give testimony—as to his ability, as to his knowledge of such matters, as to how he arrives at certain figures, or not. In other words, it will be in accordance with the regular procedure of this committee; and any other procedure is the insertion of secret evidence into the record without the right of cross-examination.

The CHAIRMAN. How is it secret evidence when we simply take the figures that are given by the department? I think that I can explain how every figure is obtained from this tabulation. I have a right to take this tabulation and work up any figures from it I see fit; have I not?

Senator PITTMAN. These are your figures?

The CHAIRMAN. These are the figures prepared in my office, and I can explain them.

Senator PITTMAN. Do you know anything about the proposition?

The CHAIRMAN. I think I can give it to you as I go along.

Senator PITTMAN. How do you know, for instance—

The CHAIRMAN. There is not a thing that can not be obtained by adding these figures in this tabulation sent down from the department.

Senator PITTMAN. Now, you have this here [examining paper] “fit to fight, battleships, 30 per cent.” How did you arrive at that?

The CHAIRMAN. By taking the different battleships and the averages, here, and dividing and finding how they stood. For instance, in personnel, it is all given here, just what percentage of personnel they had on board. As to material it is all given just the same way.

Secretary DANIELS. Did you count the *Iowa* and the *Missouri*?

The CHAIRMAN. I said—

Secretary DANIELS. Did you count the *Iowa* and the *Missouri*?

The CHAIRMAN. Yes; I said all the battleships in the Navy, whether in commission or not.

Secretary DANIELS. You count in the *Iowa* as a ship and say that it is not fit to fight! Why, the *Iowa* and the *Illinois* and the *Missouri* and the *Massachusetts* and those old classes of ships were scrapped; and just see the unfairness of putting in a statement of whether an old ship that was scrapped is fit to fight or not, and putting that in the same class with the *New York* and the *Oklahoma* and the *Nevada*!

The CHAIRMAN. But it all comes from this statement received from the department.

Senator PITTMAN. It comes from your statement.

The CHAIRMAN. I stated in the beginning that we took all the ships. Those in reserve and in commission or out of commission, all that were on this list sent by your department.

Secretary DANIELS. You bring here a statement—

The CHAIRMAN. Yes.

Secretary DANIELS (continuing). In which you assume—

The CHAIRMAN. Yes.

Secretary DANIELS (continuing). To say what ships in the Navy are fit to fight.

The CHAIRMAN. Yes; I take your own statement.

up any such statement.

The CHAIRMAN. It is made from your own figures.

Secretary DANIELS. Ah! No; a statement prepared—a statement for a certain ship. You say the *Missouri*, and I note as recommended 27 days' repair. Another expert recommended something else. You have got to go into that and see what those repairs were, and whether they were necessary or what their character was.

Senator PITTMAN. Let us take the *Arizona*, for instance. What is the official statement; what do you find as to the *Arizona* there?

The CHAIRMAN (reading from letter):

(a) State whether in full commission, in commission in reserve, in commission in ordinary, or out of commission.

Full commission.

(b) State exactly where located then.

Navy yard, New York.

(c) State number of days then necessary to make matériel repairs essential for war service.

Sixty-two days.

(d) State number of rounds of shells then on board for main battery.

Twelve hundred shells.

(e) State percentage of personnel then on board in terms of per cent of full war complements as 100 per cent.

One hundred and nine per cent of line officers, no reserve officers; 100 per cent staff officers, 91 per cent warrant officers, and 93 per cent of enlisted men.

Secretary DANIELS. Upon what basis—

The CHAIRMAN. These are direct answers to my questions to you.

Senator PITTMAN. That is what I am getting at. Let us finish this for a minute. Those answers gave certain facts.

The CHAIRMAN. Those gave certain facts.

Senator PITTMAN. How did you determine from them whether that vessel was fit to fight or not?

The CHAIRMAN. I took, under—

(e) State number of days then necessary to make matériel repairs essential for war service—

Senator PITTMAN. It stated 62 days?

The CHAIRMAN. Sixty-two days.

Senator PITTMAN. Is that vessel fit to fight or not?

The CHAIRMAN. After 62 days.

Senator PITTMAN. You have two headings here, one "Fit to fight" and the other "Not fit to fight." That says "62 days." Was that vessel fit to fight?

The CHAIRMAN. That vessel was not fit to fight at that time; that is, she had necessary repairs to be made at that time.

Secretary DANIELS. The *Arizona* not fit to fight?

The CHAIRMAN. That date was February 2.

Senator PITTMAN. Well, I am going, Mr. Chairman. Excuse me, I am going to the Senate.

The CHAIRMAN. Senator, before you go I would like to say that I intend to put these matters in the record.

Senator PITTMAN. There is no way to prevent that that I know of.

Secretary DANIELS. I want to say, Mr. Chairman—and I want to put this in the record—that the only way to put that in the record is to put an unfair, unjust, and unfounded statement in the record that is not borne out by the facts.

The CHAIRMAN. It is entirely borne out.

Secretary DANIELS. And I protest against the injustice and the wrong of it. You have put the *Arizona* down there as unfit to fight. The *Arizona* is fit to fight.

The CHAIRMAN. Mr. Secretary, one minute. I gave you the conditions of the *Arizona* on February 2, 1917. Now, the figures show on April 6, 1917, as follows:

(c) State number of days, then, necessary to make material repairs essential for war service.

None.

That is, on April 6 she was ready. On February 2 she was not.

Secretary DANIELS. Now, Mr. Chairman—

Senator PITTMAN. The tabulation you have there is "Unfit to fight" on February 2.

The CHAIRMAN. Not fit.

Senator PITTMAN. You state from those figures that on February 2 she was not fit to fight?

The CHAIRMAN. Yes; and she was fit to fight on April 6, 1917.

Secretary DANIELS. Where does it show that she was when she was unfit to fight?

The CHAIRMAN. At the navy yard, New York.

Secretary DANIELS. Yes; and where was she in April?

The CHAIRMAN. On April 6 she was at Hampton Roads, Va.

Secretary DANIELS. The idea of putting down the *Arizona* as unfit to fight on any date! Why, she could have been repaired in a very brief time.

The CHAIRMAN. I will cut out the words "Unfit to fight" and "Fit to fight."

Secretary DANIELS. But you have not changed it materially when you have done that.

The CHAIRMAN. I have changed those words here.

Secretary DANIELS. Let us, if you wish, put any such statement in the record; but I demand that you be sworn and come before this committee as a witness, and that we may call Admiral McKean here, and that you be examined, or whoever put this statement in be examined, and that we enter into every particular of every repair necessary; and I submit that anything else is not fair.

The CHAIRMAN. I do not think it is unfair. I do not think you can cite a case where the chairman of a committee is called before his own committee and sworn as a witness in the matter of questions he wishes to ask.

Secretary DANIELS. You have not asked a question.

The CHAIRMAN. I say that I am about to ask you questions.

Secretary DANIELS. You are putting in this record something which I say is not founded on facts, and if it goes in, is an injustice to the American people; and I protest against it and I denounce it.

The CHAIRMAN. I have given your own figures about the *Arizona*.

Secretary DANIELS. Ah! You said she wanted some repairs.

The CHAIRMAN. Exactly.

Secretary DANIELS. And I told you that there was not a ship in the Navy to-day—if you want to ask whether the *Arizona* was fit to fight or not and is in condition and in repair, let us send for Mayo and McKean; let us send for somebody that knows. I submit that that statement there is so jaundiced and unfair and improper that it has no place here. If you want to know whether the *Arizona* is fit to fight or not, let us take these papers and let us send for Mayo and McKean, and let us send for men that know. I would not pass my judgment upon it. I would not take yours.

The CHAIRMAN. Mr. Secretary, will you deny that on February 2, 1917, the *Arizona* had 62 days' work to do on her.

Secretary DANIELS. I will refer you to the testimony of Admiral McKean, and I will say this. If she had——

The CHAIRMAN. She was all ready on April 6, 1917, and those days' work had been done.

Secretary DANIELS. I will say this, that if she had 62 days' work, it is absolutely essential for you to take up what those 62 days were for; what kind of repairs; what kind of improvement; and I submit that this whole matter should be held up until men who know, who are technically trained, admirals of fleets; technical officers, who can say whether a ship is fit to fight and is in a state of readiness——

The CHAIRMAN. Please cut out those words "fit to fight." That has been changed.

Secretary DANIELS. But you are not changing it materially.

The CHAIRMAN. I am using the exact words of my letter to you requesting this.

Secretary DANIELS. You have a right to put in that record a statement of Capt. Hutchinson's as to conditions, and then if there are any deductions from this statement, whoever makes those deductions ought to come before this committee and be sworn and cross-examined, and Admiral McKean ought to be called back, and Hutchinson called if you want him, and go through these matters and determine the question.

The CHAIRMAN. I am putting in the record the questions, and——

Secretary DANIELS. I can not stop you putting in the record; but I say it is an unjust and unfair thing to do.

The CHAIRMAN. I am putting in the record certain deductions taken from those figures—please let me finish, now.

Secretary DANIELS. Oh, of course.

The CHAIRMAN. Certain deductions taken from your figures which I have had worked up in my office from the figures given by you.

Secretary DANIELS. Yes.

The CHAIRMAN. Please wait, now—and these deductions I propose to introduce at this period in the record, and I wish to tell you when I introduce them that if there are any mistakes in these deductions I shall be very glad to have you point them out to me and they will be corrected.

Secretary DANIELS. Corrected how?

The CHAIRMAN. They will be corrected; a statement will be made.

Secretary DANIELS. How?

The CHAIRMAN. In the record.

Secretary DANIELS. By whom?

The CHAIRMAN. That is for you to say. You can have this looked over and verified. These are all made up as to the question of repairs, as to the question of personnel, from these figures, Mr. Secretary [indicating table].

Secretary DANIELS. Then, I submit that the proper thing to do is not to put them in the record, but to say that you have them there, and let them be examined by experts, and let sworn men come here and testify as to these matters, and then let that go into the record, and all these things, if it is testified to and sworn to.

The CHAIRMAN. You want sworn men to come here and testify to what—as to whether they follow the information given me?

Secretary DANIELS. As to whether ships are fit to fight or not.

The CHAIRMAN. There is no question about "fit to fight." That has been struck out already.

Secretary DANIELS. You have changed the wording, but it is not material.

The CHAIRMAN. I have changed the wording according to my letter to you.

Secretary DANIELS. I shall protest, and I shall denounce as long as I live the placing of any such unfounded or false, unfair statements in the record.

The CHAIRMAN. Would you prefer to have me ask you things about all of these? It will take a great deal of time.

Secretary DANIELS. If you should ask me questions, I should refer you to Admiral McKean's testimony. It is all in his testimony.

The CHAIRMAN. But Admiral McKean does not deal with these specific details that are given by your office.

Secretary DANIELS. He deals with all of them.

The CHAIRMAN. He does not in any way deal with these specific details that are in here.

Secretary DANIELS. Now, I submit, Mr. Chairman, that the proper thing to do, in view of the gravity of this perfectly unfair and unfounded statement—

The CHAIRMAN. Do you object to your own statements? You are characterizing your own statements here as unfair and unfounded, are you?

Secretary DANIELS. I am not criticizing anybody as unfair, but I say that this statement is unfair and unfounded.

The CHAIRMAN. It is made up entirely from your own figures, sir.

Secretary DANIELS. Then I say that the thing for us to do is to take your own statement and your analysis and let us determine by experts what are the facts about these ships.

The CHAIRMAN. Oh, that is what you should have done before this was sent to me at my request.

Secretary DANIELS. Then I will have it done, if you wish it.

The CHAIRMAN. You did not have it done. You have sent me certain information there, and from that information I have a right to make certain deductions, provided it goes with the facts.

Secretary DANIELS. You have a right, when you make a report, to submit any deductions you choose; but I submit, Mr. Chairman—because I wish to have this matter right, and I am certain you do—I submit that these deductions you have ought to come before the committee for cross-examination and examination by experts.

The CHAIRMAN. That can be done after the statement is made.

Secretary DANIELS. And I submit that the proper way to do that is before it is introduced in the record; that it all come together. Now, I have made statements here which you have cross-examined me about.

The CHAIRMAN. Did I ask you about them before you put them in?

Secretary DANIELS. Not at all; but you cross-examined me about them.

The CHAIRMAN. Did I hold them up until I could see whether they were true or not; before you put them in the record?

Secretary DANIELS. But I was a sworn witness. I do not know who prepared that statement. I do not know whether he knew it was correct or not.

The CHAIRMAN. I told you what it is.

Secretary DANIELS. I do not understand.

The CHAIRMAN. It is entirely based upon your own statement here.

Secretary DANIELS. You can place that in the record and you can place anything in the record; but when you undertake to interpret it, then let experts come and tell you how it is to be interpreted.

The CHAIRMAN. This will be placed in the record with the words—

Secretary DANIELS. What is that?

The CHAIRMAN. This statement that I have here will be placed in the record.

Secretary DANIELS. You intend to do it?

The CHAIRMAN. Yes; I intend to do it.

Secretary DANIELS. Oh, well, of course I am impotent; but I protest against it as an unjust and an unfair thing to do.

The CHAIRMAN. Now, I will state that from—

Secretary DANIELS. And I wish to say also that before this testimony is printed I shall take your statement and all these statements and I shall insist that I shall reply to it, and that that shall go in the record as a full answer and analysis alongside of this statement. Is that right?

The CHAIRMAN. I am perfectly willing to have it go in as your statement.

Secretary DANIELS. I think it has no business there, but you have decided it.

The CHAIRMAN. Do you bear me out, Senator Keyes?

Senator KEYES. Yes.

Secretary DANIELS. Mr. Chairman, I submit this, and I think I have a right to submit it. You have not a majority of the committee here.

The CHAIRMAN. I have authority from Senator Ball to represent him.

Secretary DANIELS. Very well: I have no question about that. I submit this, that this is a very important matter, and I suggest that it is wisdom in a matter of this kind in which the Navy Department feels that it is improper—we feel that you ought—

The CHAIRMAN. Does the Navy feel it in any other way than that its own figures are improper, and does the Navy Department feel that?

Secretary DANIELS. You have placed that statement in the record, and I have objected to it.

The CHAIRMAN. Does the Navy Department feel that its own figures are improper?

Secretary DANIELS. I say, put that in the record. Did you put it in?

The CHAIRMAN. What?

Secretary DANIELS. The statement of Capt. Hutchison.

The CHAIRMAN. That has already been in the record some time.

Secretary DANIELS. All right: then I insist, and I shall put in writing, that I be permitted to be heard before the full Naval Affairs Committee before this interpretation, which in my judgment is unfair, is placed in any printed record in the United States.

The CHAIRMAN. Before the full Naval Affairs Committee?

Secretary DANIELS. I protest, and I ask it as justice.

The CHAIRMAN. We have nothing to say about the full Naval Affairs Committee, as to what they will do.

Secretary DANIELS. You have the power to do it, you have the steam roller, but I protest against it, earnestly and sincerely, and every man in the Navy will protest against it, against the statement that the *Arizona* is not fit to fight going into the record.

The CHAIRMAN. Now, Mr. Secretary, I have told you before that if you object to the words "not fit to fight"—

Secretary DANIELS. I object to the whole business.

The CHAIRMAN (continuing). They go out.

Secretary DANIELS. I object to the whole paper that you have there unless it comes in as a sworn statement from a witness before your committee.

The CHAIRMAN. We are beating around the bush now. The words, "in proper material condition for instant war service" will go in instead. These are the exact words given in my letter to you.

Secretary DANIELS. I—

The CHAIRMAN. Wait a minute. These are the exact words given in my letter to you, where I asked for information, and your information is in direct response to that request. Those words will go in instead of the words "fit to fight" or "unfit to fight."

Secretary DANIELS. You will find my protest against it—

The CHAIRMAN (continuing). And so far as the *Arizona* is concerned I have shown you that on February 2 there were 62 days' repair work to be done on her, and that on April 6, 1917, there were no days of repair necessary to be done on her.

Secretary DANIELS. I have no power on earth, Mr. Chairman, to prevent you from putting that in the record.

The CHAIRMAN. None whatever.

Secretary DANIELS. But I have the power—

Secretary DANIELS. But I have the power to appeal to the Senate and to the people of the United States. I have the power to appeal to the Senate Naval Affairs Committee, which I shall do. I have the power to appeal to the American people that this does not go on until certain witnesses have been here and testified to that, and men competent to pass upon it have brought it before you.

The CHAIRMAN. One minute, Mr. Secretary. How far would you want these sworn witnesses to go; back of this statement made here?

Secretary DANIELS. I wish each ship taken up, in view of Admiral McKean's statement or Capt. Hutchison's.

The CHAIRMAN. Yes.

Secretary DANIELS. That is all right. Let that go in the record.

The CHAIRMAN. Would you wish him to go back of that?

Secretary DANIELS. Yes; I would wish to go back of that, to show exactly the character of the repairs that were to be made, because you have deduced and are putting in your statement that the *Arizona* was not fit to fight because certain repairs were necessary.

The CHAIRMAN. Will you cut out that "not fit to fight"? As a matter of fact, there is very little difference between "fit to fight" and "in proper condition for instant service overseas."

Secretary DANIELS. But when you talk about that, you have got a deficiency—

The CHAIRMAN. I am simply taking your own figures.

Secretary DANIELS. Yes; I know; but you ought, before you characterize it—let it go in, but let us take the statement of what repairs are necessary.

The CHAIRMAN. I shall be very glad to have you furnish anything of that sort. You have not furnished it when I requested it.

Secretary DANIELS. I protest that this statement does not go in except under oath, and I protest the chairman is not testifying, and this is putting testimony in that I say is unjust. Now I do not suppose that you think it is unjust or you would not do it, but I protest that this shall not go in until some witness comes here and testifies to it and is cross-examined. I make that protest. I am impotent if you do it, but I am not impotent to make an appeal.

The CHAIRMAN. I intend to put this matter in the record.

Secretary DANIELS. I understand you say you will do it upon the vote of Senator Ball, who is absent, by his authority.

The CHAIRMAN. I say Senator Ball has given me the right to vote for him.

Secretary DANIELS. I say you do it by his authority. You put it in the record.

The CHAIRMAN. Had you rather wait until I have Senator Ball here?

Secretary DANIELS. No; I have no doubt you have his authority.

The CHAIRMAN. If you protest against it, we will wait until we have a majority of the committee present, and have Senator Ball here.

Secretary DANIELS. No; I have no doubt of your authority. There is no use wasting time about that at all.

already read to you, I have made the following deductions—
Secretary DANIELS. Against which I protest.
The CHAIRMAN. These deductions—
Secretary DANIELS. I protest as solemnly as a man.
The CHAIRMAN (continuing). These deductions are tables prepared in my office and taken entirely from the furnished by the Office of Operations to me. They cover cruisers, and destroyers. In each case they cover all ships, cruisers, and destroyers given in the list, and battleships, cruisers, and destroyers in active commission that are in reserve, in ordinary, and out of commission.
In certain cases, on account of including these ships out of commission and which were not or could not have active service, the averages would be affected by them. There is no intention on my part in any way to put off that will deceive anybody. The statement, I think, is itself.

I hope very much that you will go over the statement if any mistakes have been made—and I can not guarantee that mistakes have not been made in making up this tabulation used in my questions—that attention will be called to them, and, of course, the record will show in that case that mistakes have been made, and should be corrected.

There is nothing included in the tabulation except what is based entirely on the figures given me by the Office of Operations. There is no new matter inserted at all, except what is deduced from these figures.

As to the question of the time necessary for preparing them in proper material condition for instant service or for simply taken the figures given by the Office of Operations, I can show that the figures given by your own office are not bear out the evidence sent to me—the tabulation you are, of course, entirely at liberty to do so, and I think so; but as far as this tabulation which I am putting into the record is concerned, I have simply taken what you have given me and have based my figures on that tabulation.

I will now read the deductions that I have made.

Secretary DANIELS. The same ones you read before?

The CHAIRMAN. Yes; but I had not finished them. I have not finished them, yet.

Secretary DANIELS. Oh, you have not?

The CHAIRMAN. No.

(The matter referred to was here read by the chairman.)



Line No.	Vessels.	Material.			Personnel (exclusive of all officers).		
		In proper material condition for war service: per cent of each class of vessels.	Not in proper material condition for war service.		Having full war complement on board: per cent of each class of vessels.	Not having full war complement on board.	
			Per cent of each class of vessels.	Number of days to put each class in proper material condition for war service.		Per cent of each class of vessels.	Per cent of crew on board.
A.	B.	C.	D.	E.	F.		
	On Feb. 2, 1917:						
1	Battleships.....	32	68	60	3	97	57
2	Cruisers.....	56	44	62	3	97	59
3	Destroyers.....	9	91	57	1	99	56
4	Averages.....	26	74	60	2	98	57
	On Apr. 6, 1917:						
5	Battleships.....	46	54	61	3	97	55
6	Cruisers.....	69	31	52	3	97	59
7	Destroyers.....	9	91	56	24	76	56
8	Averages.....	33	67	56	10	90	57

In other words, on February 2, 1917, 26 per cent of the fleet was reported as fit in material and 74 per cent of the fleet had an average of 60 days of repairs essential for war service to be made. Only 2 per cent of the vessels had full war complement on board and 98 per cent of them averaged to have but 57 per cent of their full war complement on board.

On April 6, 1917—that is, 63 days later—33 per cent of the fleet was reported as fit in material and 67 per cent of the fleet had an average of 56 days of repairs essential for war service to be made. Only 10 per cent of the vessels were fully manned and 90 per cent of them averaged to be but 57 per cent manned.

In short, from the figures presented by the Navy Department, we went into the war with two-thirds of our fleet not in proper material condition for war service and requiring on the average two months of repairs, and with but 10 per cent of our fleet having their full war complement on board and 90 per cent of it averaging less than three-fifths of its full war complement on board.

Personnel preparedness of vessels.

[Based on full war complement as 100 per cent and exclusive of all officers.]

SUMMARY.

Line No.	Vessels.	Vessels in each class having full war complement or more on board.		Vessels in each class having less than full war complement on board.		Totals and averages of vessels in each class.	
		Number of vessels.	Per cent of war complement.	Number of vessels.	Per cent of war complement.	Number of vessels.	Per cent of war complement.
		A.	B.	C.	D.	E.	F.
	On Feb. 2, 1917:						
1	Battleships.....	1	100	36	48	37	57
2	Cruisers.....	1	100	31	51	32	59
3	Destroyers.....	1	100	66	47	67	54
4	Totals and averages.....	3	100	133	49	136	57
	On Apr. 6, 1917:						
5	Battleships.....	1	100	36	46	37	55
6	Cruisers.....	1	100	31	50	32	59
7	Destroyers.....	16	100	51	47	67	56
8	Totals and averages.....	18	100	118	.....	136	57

BATTLESHIPS.

Line No.	Classification by per cent of "men" on board.	On Feb. 2, 1917 (see Paragraph I, clause c). ¹			On Apr. 6, 1917 (see Paragraph II, clause c). ²		
		Number of battleships.	Per cent of battleships.	Per cent of war complement on board.	Number of battleships.	Per cent of battleships.	Per cent of war complement on board.
		A.	B.	C.	D.	E.	F.
1	100 per cent or more.....	1	3	100	1	3	100
2	80 to 100 per cent.....	7	20	86	9	23	76
3	60 to 80 per cent.....	5	13	70	7	20	66
4	40 to 60 per cent.....	5	13	54	10	26	53
5	20 to 40 per cent.....	16	43	32	7	20	24
6	Less than 20 per cent.....	3	8	.....	3	8	.....
7	Totals and averages.....	37	100	57	37	100	53

NOTE.—The Nevada did not receive her full war complement of men until January, 1918.

¹ Paragraph I, clause c, reads: "I. For each and every battleship on the Navy list on the 2d of February, 1917: (c) State percentage of personnel then on board in terms of per cent of full war complements as 100 per cent."² Paragraph II, clause c, reads: "II. For each and every individual battleship on the Navy list on the 6th of April, 1917: (c) State percentage of personnel then on board in terms of percent of full war complements as 100 per cent."

Personnel preparedness of vessels—Continued.

CRUISERS.

Classification by per cent of men on board.	On Feb. 2, 1917 (see Paragraph V, clause c). ¹			On Apr. 6, 1917 (see Paragraph VI, clause c). ²		
	Number of cruisers.	Per cent of cruisers	Per cent of war complement on board.	Number of cruisers.	Per cent of cruisers.	Per cent of war complement on board.
	A.	B.	C.	D.	E.	F.
100 per cent or more.....	1	3	100	3	9	100
80 to 100 per cent.....	10	31	94	10	31	92
60 to 80 per cent.....	4	13	69	3	6	70
40 to 60 per cent.....	8	25	48	7	22	49
20 to 40 per cent.....	3	9	36	4	13	35
Less than 20 per cent.....	6	19	8	5	16	6
Totals and averages.....	32	100	59	32	100	59

RE.—The Marblehead did not receive her full war complement of men until October, 1917.
 Paragraph V, clause c, reads: "V. For each and every individual cruiser on the Navy list on the 2d of May, 1917: (c) State percentage of personnel then on board, full war complements being taken as 100 per cent."
 Paragraph VI, clause c, reads: "VI. For each and every individual cruiser on the Navy list on the 6th of April, 1917: (c) State percentage of personnel then on board, full war complements being taken as 100 per cent."

DESTROYERS.

Classification by per cent of men on board.	On Feb. 2, 1917 (see Par. IX, clause d). ¹			On Apr. 6, 1917 (see Par. X, clause d). ²		
	Number of destroyers.	Per cent of destroyers.	Per cent of war complement on board.	Number of destroyers.	Per cent of destroyers.	Per cent of war complement on board.
	A.	B.	C.	D.	E.	F.
100 per cent or more.....	1	1	100	16	24	100
80 to 100 per cent.....	30	45	87	24	36	92
60 to 80 per cent.....	9	14	66	9	13	67
40 to 60 per cent.....	21	31	49	14	21	50
20 to 40 per cent.....	4	6	32	2	3	28
Less than 20 per cent.....	2	3	.....	2	3	.....
Totals and averages.....	67	100	56	67	100	56

—The Mayrant did not receive her full war complement of men until February, 1918.
 IX, clause d, reads: "IX. For each and every individual destroyer on the Navy list on the 2d of May, 1917: (d) State percentage of personnel then on board, full war complements being taken as 100 per cent."
 X, clause d, reads: "X. For each and every individual destroyer on the Navy list on the 6th of April, 1917: (d) State percentage of personnel then on board, full war complements being taken as 100 per cent."

Material preparedness of vessels.

SUMMARY.

Line No.	Vessels.	In proper material condition for war service.		Not in proper material condition for war service.			
		Number in each class.	Per cent of total in each class.	Number in each class.	Per cent of total in each class.	Average number of days required to put in proper material condition for war service.	Total number in each class.
		A.	B.	C.	D.	E.	F.
	On Feb. 2, 1917:						
1	Battleships.....	12	32	25	68	60	37
2	Cruisers.....	18	56	14	44	62	33
3	Destroyers.....	6	9	61	91	57	67
4	Total and averages.....	36	26	100	74	60	136
	On Apr. 6, 1917:						
5	Battleships.....	17	46	20	54	61	37
6	Cruisers.....	22	69	10	31	52	32
7	Destroyers.....	6	9	61	91	56	67
8	Totals and averages.....	45	33	91	67	56	136

In other words, of the 136 battleships, cruisers, and destroyers reported on by the Navy Department in response to the inquiry by Senator Hale, on the entry of the United States into the war 45 vessels (33 per cent) are reported as being in proper material condition fit for war service and 91 vessels (67 per cent) are reported as then requiring essential repairs before being in proper material condition for war service; and it appears these repairs were expected to take, on the average for all of the 91 vessels not in proper material condition for war service, 56 days, or practically two months after war was declared before they could be put in proper material condition for instant war service overseas.

It is furthermore noteworthy that one battleship, the *Oregon*, was not ready until April 7, 1919 (two years). One cruiser, the *Salem*, was not ready until November 1, 1917 (208 days), and one destroyer, the *Mayrant*, was not ready until March 14, 1918 (343 days after war was declared).

BATTLESHIPS.

Line No.	Time, etc.	On Feb. 2, 1917 (see Par. I, clause c). ¹			On Apr. 6, 1917 (see Par. II, clause c). ²		
		Number of battle-ships requiring repairs essential for war service.	Number of days estimated as required to make essential repairs in each chronological class.		Number of battle-ships requiring repairs essential for war service.	Number of days estimated as required to make essential repairs in each chronological class.	
			Average.	Maximum.		Average.	Maximum.
			A.	B.	C.	D.	E.	F.
1	Less than 30 days.....	2	26	27	8	21	27
2	30 to 59 days.....	6	37	47	4	35	40
3	60 to 89 days.....	8	69	89	4	62	65
4	90 days or more.....	9	110	208	4	125	174
5	Totals and averages.....	25	60	.....	20	61	.....
6	Said not to require essential repairs.....	12	.....	.....	17	.....	.....
7	Total.....	37	.....	.....	37	.....	.....
8	Per cent of total which were in proper material condition for war service.....	32	.....	.....	46	.....	.....
9	Percent of total which were not in proper material condition for war service.....	68	.....	.....	54	.....	.....

NOTE.—The North Dakota, at New York, with but 92 days of essential repairs scheduled against her on Apr. 6, 1917, was not repaired until Sept. 30, 1918, 542 days after war was declared. The Oregon, at New York and Mare Island, with but 39 days of essential repairs scheduled against her on Apr. 6, 1917, was not repaired until Apr. 7, 1919, just two years after war was declared and 147 days after the armistice was signed.

¹ Paragraph I, clause c, reads: "I. For each and every individual battleship on the Navy list on the 1st of February, 1917: (c) State number of days necessary then to make material repairs essential for war service."

² Paragraph II, clause c, reads: "II. For each and every individual battleship on the Navy list on the 1st of April, 1917: (c) State number of days then necessary to make material repairs essential for war services."

Material preparedness of vessels—Continued.

CRUISERS.

Line No.	Time, etc.	On Feb. 2, 1917 (see Par. V, clause c). ¹			On Apr. 6, 1917 (see Par. VI, clause c). ²		
		Number of cruisers requiring repairs essential for war service.	Number of days estimated as required to make essential repairs in each chronological class.		Number of cruisers requiring repairs essential for war service.	Number of days estimated as required to make essential repairs in each chronological class.	
			Average.	Maximum.		Average.	Maximum.
		A.	B.	C.	D.	E.	F.
1	Less than 30 days.....	3	25	28	4	1	18
2	30 to 59 days.....	4	40	58	5	39	50
3	60 to 89 days.....	6	77	87			
4	90 days or more.....	1	106	106	1	106	106
5	Totals and averages.....	14	62		10	52	
6	Said not to require essential repairs.	18			22		
7	Totals.....	32			32		
8	Per cent of total which were in proper material condition for war service.....	56			69		
9	Per cent of total which were not in proper material condition for war service.....	44			31		

¹ Par. V, clause c, reads: "V. For each and every individual cruiser on the Navy list on the 2d of February, 1917: (c) State number of days then necessary to make material repairs essential for war service."

² Par. VI, clause c, read: "VI. For each and every individual cruiser on the Navy list on the 6th of April, 1917: (c) State number of days then necessary to make material repairs essential for war service."

³ NOTE.—The Salem, at Boston, with but 106 days of essential repairs scheduled against her on Apr. 6, 1917, was not repaired and put in proper material condition for war service until Nov. 1, 1917, 208 days after war was declared.

On Feb. 2, 1917 (see Par. IX,
clause c).¹

On Apr. 6, 1917 (see Par. X,
clause c).²

Line No.	Time, etc.	Number of de- stroyers requiring repairs essential for war service.	Number of days estimated as re- quired to make essential repairs in each chrono- logical class.		Number of de- stroyers requiring repairs essential for war service.	Number of days estimated as re- quired to make essential repairs in each chrono- logical class.	
			Average.	Maxi- mum.		Average.	Maxi- mum.
		A.	B.	C.	D.	E.	F.
1	Less than 30 days.....	29	18	29	36	15	25
2	30 to 59 days.....	22	36	50	19	37	50
3	60 to 89 days.....	4	66	72	1	60	60
4	90 days or more.....	6	107	150	5	112	150
5	Totals and averages.....	61	57		61	56	
6	Said not to require essential repairs.	6			6		
7	Totals.....	67			67		
8	Per cent of total which were in proper material condition for war service.....	9			9		
9	Per cent of total which were not in proper material condition for war service.....	91			91		

NOTE.—The Mayrant, at Philadelphia, with but 45 days of essential repairs scheduled against her on Apr. 6, 1917, was not repaired and was not in proper material condition for war service until Mar. 14, 1918, 143 days after war was declared.

¹ Par. IX, clause c, reads: "IX. For each and every individual destroyer on the Navy list on the 2d of February, 1917: (c) State number of days then necessary to make material repairs essential for war service."
² Par. X, clause c, reads: "X. For each and every individual destroyer on the Navy list on the 6th of April, 1917: (c) State number of days then necessary to make material repairs essential for war service."

(The following communication, with accompanying papers, with regard to the above tables was subsequently received from Secretary Daniels and is here inserted in the record, as follows:)

THE SECRETARY OF THE NAVY.

Washington, June 1, 1920.

MY DEAR SENATOR: At the hearing of your committee on Wednesday last you presented a document made up, as you stated, in your office containing certain "deductions" regarding preparedness of naval vessels which, in my opinion, were so unwarranted and so unjust to the United States Navy that I entered my solemn protest against their introduction. In spite of my protest, they were placed in the record, with the understanding that the responsible officers and officials of the Navy Department would make a complete statement and analysis regarding the preparedness and condition of vessels and that these would be placed in the record immediately following the statement presented by the chairman.

In accordance with that agreement, I am sending you, for insertion in the record, this statement and the following:

1. A statement from the Chief of Operations and the Chief of the Bureau of Navigation, dated May 28, 1920, on the subject of "Readiness of ships of the United States Navy in February and April, 1917."

2. Letter from the Chief of the Bureau of Navigation to the Chief of Naval Operations on the subject "Personnel on board ships April 6, 1917."

3. From the Acting Chief of the Bureau of Ordnance, "Tabular statement on which is shown projectiles on hand on all ships of the Navy and reserve projectiles on shore for all vessels under date of February 2, 1917, and April 7, 1917."

4. Letter from Capt. B. F. Hutchison, United States Navy, dated May 29, 1920; subject, "Information for Senator Hale."

Your summary, as originally presented, classified vessels under the general heading "Fit to fight" and "Not fit to fight," but it was so manifest that these arbitrary classifications were not warranted that they were withdrawn and other headings substituted. But this mere change in the wording did not correct the erroneous character of the tabulations and inferences drawn therefrom, as will be apparent from your deductions, one of which was that "we went into the war with two-thirds of our fleet not in material condition for war service and requiring, on the average, two months of repairs, and with but 10 per cent of our fleet having their full war complement on board and 90 per cent of it averaging less than three-fifths of its full war complement aboard."

The careful analysis of all our fighting forces made by the experts most competent to determine their condition, the Chief of Naval Operations and the Chief of the Bureau of Navigation, so clearly show the actual state of preparedness, as regards both material and personnel, that I feel sure you will admit that your deductions, however honestly may have been their intent, were incorrect. The tables on which your deductions were based included many old vessels of small or no military value; it answered your questions categorically, with no proper explanations as to the age and unserviceableness of many of the ships mentioned, which should have been called to your attention. Furthermore, the personnel tables of July, 1917, referred, in many cases, not to actual war complements but to the number of men on board, which included thousands of men placed on ships for training, numbers far above any fighting complements.

Admiral Washington, chief of the Bureau of Navigation, shows that there were in the Navy, on April 6, 1917, not only enough men to man all our fighting ships, but also a surplus of 23,900 men available for other ships and shore needs. He states that to man the ships of the first line—12 dreadnaughts, 13 predreadnaughts, 22 cruisers, 67 destroyers, and the submarines—44,447 men were required. This includes such old cruisers as the *Raleigh*, the *Chicago*, the *Marblehead*, and the *Montgomery*, which he says, "could not properly be classed in first line or as of real fighting value," but are included in the list because, though old and slow, they were utilized in the war. The 12 very old battleships, which were of little fighting value and were used for training recruits, required 7,610 additional men; making a total of 52,277 necessary to man all the foregoing vessels. Admiral Washington states:

"There were 64,880 regulars and about 11,502 reserves in the Navy on April 6, and it required 52,277 men to operate all the above fighting ships, leaving 12,403 regulars and 11,502 reserves, or a surplus of about 23,900 men available for all other ships on the Navy Register and for shore needs."

"The enlistments and enrollments came in so rapidly after the war was declared," states Admiral Washington, "that by the end of April there were 111,175 regulars and reserves combined, enough to man all the ships that were considered at that time available for fighting and for all other purposes needed." In that connection he calls attention to the statement of Capt. Palmer, former Chief of the Bureau of Navigation, in his testimony before your committee: "I had the personnel ready at seaports to be put on vessels before the vessels were ready. We never had a delay of a vessel on account of not having the officers and men."

While some thousands of these were recruits, requiring training, I call your attention to the fact that on February 1, 1917, there were 57,042 regulars in the Navy, more than enough to man all the battleships, cruisers, destroyers, and submarines.

The joint statement from the Chief of Naval Operations and the Chief of the Bureau of Navigation, compiled from the official records of the department, gives in detail the following information:

(a) A list of vessels on the Navy list on February 1, 1917, divided into classes.

(b) A list of vessels of such fighting value as could be considered of service in battle if engaged with vessels of their own class.

(c) A summary of the enlisted-personnel situation of the Navy in February and April, 1917.

(d) The condition of the vessels of the Atlantic Fleet as regards material readiness for war service on April 6, 1917.

On the 1st of February, 1917, the Atlantic Fleet was at Guantanamo, Cuba, for the usual winter maneuvers and drills. The fleet was then, as it had at all

boats, and so on, and the east cost of the United States, about 3,000 men, and his shows that within 48 hours from the time of the order the complements of the entire fleet could have been filled to overflowing at any time.

It had been determined in February to furnish armed guards for American merchant vessels, and in the testimony of the commander in chief of the United States Atlantic Fleet, under date of March 11, 1917, he states: "An order was received to send North 30 gun crews for armed guard duty"; and on the same page, under date of March 14, he states: "Thirty more gun crews were ordered North by the Bureau of Navigation"; and on the same page, under March 16, he states: "Received information that the department contemplated sending Alabama to Guacanayabo with 800 enlisted men for active fleet." This personnel did not reach the fleet until its arrival at Hampton Roads, due to the fleet's orders to proceed North.

Admiral Mayo also noted that he received the following message: "Detail immediately 30 trained torpedo defense gun crews consisting of two gun pointers, sight setter, plugman, gun captain, each crew. Above crews to be divided into groups, each group to consist of 39-men crews. Detail immediately 10 lieutenants, senior grade, competent to command each group, 3 lieutenants, senior grade, competent to command each group three guns. Detail in addition one gunners' mate, one petty officer for each group of three guns. Above personnel to be placed on board United States merchant vessels as armed guard for defense against German submarines. The above personnel to be detailed from 13 vessels, battleship force, now with flag. Send above personnel receiving ship, New York, via destroyer to Key West and rail New York. Radio probable date of arrival party at New York. Be prepared for additional details. Acknowledge." Admiral Mayo in his testimony notes, under date March 28-31, that from conversation he understood the policy as follows: "The Atlantic Fleet would be maintained in readiness for active operations. No vessels would be sent to navy yards unless in need of major repairs. Fleet to continue intensive training of gun crews for armed guard duty."

Admiral Mayo, in his testimony regarding the preparedness of the fleet upon our entry into the World War, April 6, 1917, said: "When the active fleet arrived in Hampton Roads about April 1, after its training period in Cuban waters, it was in the best state of preparedness that it had ever been, and there was a feeling of confidence in the personnel of being able to cope with any emergency," and he also stated: "The material readiness of the active fleet was from good to very good. That such was the condition was demonstrated again and again by the duties performed by the vessels during the war."

Admiral Mayo in his testimony quoted a report dated February 4, 1917, from the commander, battleships force two to the commander in chief, Atlantic Fleet, regarding readiness for war service, as follows:

"From the above it will be seen that all ships of the battleship force except the Arizona were practically ready for immediate war service so far as their material is concerned.

"D. W. COFFMAN."

It should be noted that the Arizona was actually made ready for service about April 1.

It is further noted that there were transferred from the Atlantic Fleet, prior to April 6, 1917, 20 officers, 117 chief petty officers, and 539 men, nearly all for armed guard service.

The foregoing official data shows conditions with clearness, and that there was no question as to the ability of the Navy Department on April 6, 1917, to fully man the vessels of the active fleet with trained personnel should it have been necessary or desirable. But, from our own knowledge of the situation and the conclusion of the Allies that our battle fleet could serve no good purpose in European waters at that time, it was not deemed essential at once to place the fullest number of men on battleships, as other war activities were of more immediate importance, especially the manning of antisubmarine auxiliary and patrol craft, and in training the large number of new men being called to the colors, this number eventually becoming eight times the number of men in the Navy before the outbreak of the war.

The material condition of the ships of the active fleet is clearly set forth in the various reports and statements heretofore mentioned.

In regard to the deductions, percentages and results relating to material condition of vessels contained in your "General summary of preparedness of vessels," I call your attention to the following which is to be noted in connection with the table furnished you on April 26:

On page 1 of that table are listed 37 battleships in various conditions, out of commission, full commission, and in reserve. Of these battleships many were very old, some of them having been built in the last century and not to be considered as available fighting ships; for instance, the *Alabama*, commissioned in 1900; the *Illinois*, in 1901; the *Indiana*, in 1896; the *Iowa*, in 1897; the *Massachusetts*, in 1896; the *Kearsarge*, in 1900; the *Kentucky*, in 1900; the *Maine*, in 1902; the *Missouri*, in 1903; the *Ohio*, in 1904; the *Oregon*, in 1896; and the *Wisconsin*, in 1901.

Of the remaining 12 dreadnaught battleships and 13 predreadnaught battleships, all of the former were in the Chesapeake Bay and ready for service on April 6, 1917, the *Arizona* having just arrived from New York. Of the 13 modern predreadnaught battleships 6 were in Chesapeake Bay and of the remaining 7 the *Nebraska* left the navy yard, Boston, April 13, prepared for service, and the *New Jersey* left the navy yard, New York, April 29, prepared for service—in all 80 per cent by the end of April, 1917.

On page 2 of that table, under the head of "Cruisers," it is to be noted that many of these were old and not available as fighting ships. The *Rochester* was commissioned in 1893; the *Brooklyn*, in 1896; the *Chicago*, in 1889; the *Minneapolis*, in 1894; the *Columbia*, in 1894; the *Marblehead*, in 1894; the *Montgomery*, in 1894; the *New Orleans*, in 1899; the *Albany*, in 1900; the *Cincinnati*, in 1894; the *Boston*, in 1897; the *Olympia*, in 1895; and the *Raleigh*, in 1894. These vessels were in various statuses from being in full commission to reserve, ordinary, out of commission, or to be sold as of no use for naval purposes.

Omitting the *Boston* and the *Montgomery*, which were totally unserviceable, of the remaining 32 vessels, armored cruisers and cruisers of the first, second, and third class, 19 were ready for service on April 6, 1917, and within one month thereafter. In addition, the *North Carolina*, *South Dakota*, *Chattanooga*, and *Raleigh*—23 in all. In addition, the *Huntington* was completed May 11, the *San Diego* May 28, the *Marblehead* May 14. Your percentage table in this respect, therefore, should be materially changed.

Of the destroyers, 67 in all, the *Mayrant* should not have been listed because she was out of commission and without engines and was not considered in any respect as of military value, and the *Downes* had been turned back to the builders because she had failed in her six months' acceptance trial. Of the remaining 65 destroyers, 21 were coal-burning vessels, 16 being of old type and small tonnage, being classed as coast torpedo vessels, and of restricted military value, although it was necessary to make such use of them as was possible at a later date. Of the 44 destroyers actually of full military value on April 6, 1917, 22 were ready for duty. Of the remaining 22, the *Ammen* was ready on April 7. She, however, returned to the navy yard, Philadelphia, on May 5, 1917, to fit out for distant service; the *Alycin* left Charleston on April 12, 1917; the *Cassin* left the navy yard, Norfolk, on May 4, 1917; the *Cummings*, while operating on April 6, had defective maneuvering valves and went to the navy yard for 10 days' repairs, May 3, 1917; the *O'Brien* was operating on April 6, 1917, but went to the navy yard, New York, on May 1 for 13 days to fit out for distant service; the *Sterrett* left the navy yard, Charleston, on April 28, 1917; the *Walke* struck a bell buoy with her propeller April 5, 1917, and was not ready, therefore, on April 6. She joined on April 23, 1917. This shows that we had ready and sent over the destroyers requested by Admiral Sims in his cablegram of April 24:

"Yesterday the War Council and Admiralty decided that cooperation of twenty-odd American destroyers, with base at Queenstown, would no doubt put down the present submarine activity, which is dangerous, and keep it down. The crisis will be passed if the enemy can be forced to disperse his forces from this crucial zone."

By May 25, 28 destroyers were either in Queenstown or on the way there, and by July there were 35 in European waters.

You will, I am sure, now understand why I entered a vigorous protest against placing in the record your deductions, and declared that, if uncorrected, they would place an unjust stigma upon the United States Navy. Anyone can see at a glance the injustice of general statements which, for example, take no account of the difference and readiness to fight of the dreadnaught *Pennsylvania*, with its big guns and giant power, and the antiquated *Oregon*, useful

for training and kept in commission mainly (then on the Pacific) in memory of its historic voyage around the Horn in the Spanish-American War. The statement you have incorporated says that the *Oregon* had a personnel of 33 per cent of some sort of supposed extra war complement. To the uninitiated this would imply that the Navy Department was very derelict in having the *Oregon* "fit to fight," because it had only 33 per cent of some complement aboard. The *Oregon* was a great ship in 1898. It would have a scrapped years ago except for its historic interest. It was in reserve mission in 1917 only because it might serve as some aid for coast defense to train recruits. And yet the "deductions" place the *Oregon* in the same gory as the *Pennsylvania*, the flagship of the Atlantic Fleet, which, in February, 1917, had 1,042 sailors and 96 marines and a full complement of 1,138 men aboard. The complement of the *Pennsylvania*, fixed when built, was showing that in February it had 91 sailors on board in excess of that complement and in addition 96 marines.

The backbone of the American Navy from 1898 to 1919 was the Atlantic Fleet. It was the fleet, the dependence of the Republic. All else was auxiliary to its unified fighting force. Therefore, to know whether the American Navy fit to fight in the early part of 1917 you need to know the condition of the Atlantic Fleet, commanded by Admiral Henry T. Mayo, commander in chief, and until the close of the war. What does Admiral Mayo say of this fighting force when the United States entered the war of 1917?

In his testimony Admiral Mayo says:

When the active fleet arrived in Hampton Roads, about the 1st of April, after its training period in Cuban waters, it was in the best state of readiness that it had ever been, and there was a feeling of confidence in the personnel of being able to cope with any emergency."

As to the fighting fleet of dreadnaughts, nothing remains to be said except accompanying statements of the Chief of Operations and of the Bureau of Naval Investigation, which show that these ships were fit to fight in the early of 1917. I do not hesitate to say that, in my opinion, there was no in the world more fit and ready to wage battle. The statement of Admiral Jellicoe, quoted elsewhere in these hearings, proves that our Atlantic Fleet was better prepared to fight, both in February and April, 1917, than the British fleet was in the Battle of Jutland, and recent disclosures in fact convince me that our fleet was in far better condition than was the British fleet. Nobody has denied that statement by Admiral Mayo; nobody can truthfully deny it; and nobody can discount the official confirmation from the records by Admiral Coontz and Rear Admiral Washington. These statements afford a complete, lasting, and historical refutation of all that has been said to the effect that the Atlantic Fleet "from stem to stern" was not fit to fight in the early days of 1917. It is significant also that Admiral Mayo says the men and officers were confident of "being able to cope with any emergency." What else do you want with a fleet? If the Secretary of the Navy on April 6, 1917, had sent one telegram, "Engage the fleet of the enemy," Admiral Mayo's fleet as then constituted could have met the German High Seas Fleet and would have defeated it, or it could have met any other fleet of any like equal strength and won victory. Why? It had been going through practice in southern waters to obtain the very experience needed for the fight, the men were on their mettle, full of confidence and pep, and nothing overwhelming odds could have withstood them.

It was the condition of the fleet in the early part of 1917, when we entered the war. The country had confidence in that fleet, and its confidence was well placed. We did not regard the *Oregon* or the *Massachusetts* or the other those old ships, manned with reserve crews, as capable of taking a battle at sea, and the parading of such old ships, with their reserve crews and lack of material readiness for war (they have all been scrapped and would have been a waste of money to do anything with them except as auxiliary coast-defense ships and as places for training recruits), will not let anybody believe the real modern dreadnaughts could not, in April, 1917, in any change, have proved equal, as Admiral Mayo says, "for any emergency." That is putting it strong, but not too strong. And Germany then, and all the world admits it now.

When we first entered the war Mr. Balfour, the first lord of the British Admiralty, made me word through the American ambassador at London that our fleet did not be needed in the early part of 1917. Therefore certain changes in ships at navy yards were not hurried, while preference was given

to destroyers and the work of converting other vessels for antisubmarine purposes. This explains the table showing that changes in certain battleships, most of them not essential to make these ships ready for battle, waited upon the more urgent making ready the antisubmarine vessels. Not only had Mr. Balfour when we entered the war sent this message that our battle fleet would not be needed in Europe at that time, but it was later confirmed in a cable by Admiral Sims, and by the French and British missions when they were in Washington in April. Therefore any criticism of lack of completing changes of any battleships in these early weeks is based upon a disregard of the situation.

Admiral Mayo was particularizing only as to ships and personnel, though he, of course, included everything when he declared that the ships of the Atlantic Fleet were ready "for any emergency." Admiral Plunkett had been director of target practice and had specialized in gunnery. In his testimony before your committee Admiral Plunkett said:

"At the end of March, 1917, when we were on the verge of entry into the war, the gunnery was at the highest state of efficiency that it has been in the history of the American Navy."

Admiral Rodman was the only admiral of the American Navy who was in command of dreadnaughts overseas during the entire war. Before the war he had been in the fighting Atlantic Fleet and on the General Board. Before your committee he said:

"* * * I wish to state from having been in the Atlantic Fleet from the time the United States declared war, that never in my forty-odd years of service, most of which I have spent at sea, and in the latter part in the North Atlantic Fleet, never have I seen such preparedness and efficiency as obtained in our battleship fleet as at the beginning of and during the war. No ship has ever, in my experience, been absolutely efficient; nor will there ever be one whose commanding officer will conscientiously state that it is 100 per cent so. For this reason, every officer who has pride and interest in his command will always strive for greater efficiency. No ship will ever be in absolutely perfect condition, for no other reason than that from its complicated design, from the multiplicity and complexity of its machinery and constructive features, it will always require certain repairs, alterations, and improvements to keep pace with new and important inventions and improvements, and for its maintenance and upkeep."

Much has been said about the destroyers and their condition. Who is better qualified to speak than Admiral Mayo? Speaking about their condition in the spring of 1917, Admiral Mayo told your committee:

"The destroyers that were first dispatched to the war zone (there were 28 dispatched in April and May), though they were assigned to operations for which they had not been specially trained, showed the effect of their general training by the efficiency with which they at once entered into their new duties."

That is expert testimony from the commander in chief of the fleet. What about these destroyers when they reached the other side of the Atlantic, after traveling 3,000 miles through heavy seas? Is not Admiral Sims a competent witness? As a matter of fact, every report we received from abroad called attention to the notably excellent condition in which our destroyers arrived, and Admiral Sims himself, in cables, letters, and reports, directed attention to this as a subject of comment and praise. A few extracts from his reports are quoted below.

Telegram of May 11, 1917:

"6. Our ships made no demands of consequence upon the navy-yard facilities after arriving, in spite of the length of their passage under adverse conditions. The commander of the division, when questioned by the vice admiral as to when his vessels would be ready for duty, reported that he should be ready that night, as soon as the ships were refueled. * * *

"7. The vessels themselves caused a great deal of complimentary comment, and, contrary to expectations, were found to be well equipped for their prospective duty, with the single exception of 'depth charges.'"

Dispatch, May 24, 1917, states that the *Melville* arrived in excellent condition.

Report of May 26, 1917:

"The Sixth Division arrived on the evening of the 24th of May in excellent condition, no repairs being required."

Report received in the Bureau of Steam Engineering June 18, 1917.

"1. It is gratifying to be able to report that the operations of our forces in these waters is proving, not only very satisfactory, but also of marked value to the Allies in overcoming the submarine menace. The equipment and construction of our ships had proved adequate and efficient.

"2. The *Melville* and the destroyers arrived fully prepared for the duty for which they were to be used, and the only additions which have been made to their armament or equipment has been the installation of 300 depth charges * * *

July 15, 1917, Letter No. 6 announcing the arrival of the *Jupiter* and *Neptune*, convoyed by the *Perkins*, *Jarvis*, *Walke* and *Sterrett*, states:

"All four destroyers arrived here in excellent condition."

Letter No. 38, July 19, 1917, forwards a copy of Commander Pringle's report, in which he states:

"All destroyers are generally in splendid condition and there is every indication that they will continue to give efficient service. Since operating with our allies our destroyers have never been called on in advance of it; they have always responded."

"3. * * * It has evidently been a source of considerable surprise and satisfaction to the British authorities to find that our ships have been able to look out for themselves.

"4. *Engineering*.—The machinery of all destroyers is generally in very good to excellent condition, and is holding up admirably under the trying conditions it is subjected to."

Report of November 26, 1917, under the heading, "Miscellaneous Information Regarding Destroyer Force," Admiral Sims states:

"The force commander is particularly gratified to be able to report the manner in which the destroyer flotillas are meeting the war demands placed upon them. A great deal of indirect commendation is heard and received concerning both the efficiency of their operations and the manner in which they stand up to the duty. Within the past week the admiralty has expressed concern as to whether they are not being driven too hard."

To be sure, in every instance, before destroyers were sent abroad they were "fitted out for distant service"—given the last touches, every screw and bolt tightened, extra officers and men placed on board to make sure of the highest efficiency as to matériel and personnel. We knew the crowded condition of navy yards in Great Britain and we took the brief time necessary to put our destroyers in extra good condition so they would make few demands upon our associates when they arrived. Experience proved the wisdom of this policy. It was preparedness, not delay.

Capt. Palmer, who was chief of the Bureau of Navigation during the war, and from September, 1916, under oath stated: "I had the personnel actually ready at the seaports to be put on vessels before the vessels were ready. We never had a delay of a vessel on account of not having the officers and men."

As to personnel on ships, the official records show, as Admiral Washington points out, that there were enough men in the Navy when war began to fully man every ship of fighting value. If some of them did not have their full complements on board it was because some had been sent on armed-guard duty, and Operations and the Bureau of Navigation deemed as to other ships that it was a wiser policy to assign men to special training at schools ashore or to place them aboard older ships for training or other purposes. And, as shown by the letter of the Chief of the Bureau of Navigation, we had enough men to man every really effective fighting ship on the day we entered the war and there never was a ship ready when the men were not ready at the seaport. Of course, we did not then have anything like enough men or officers to furnish crews for the nonfighting ships or the hundreds of additional vessels we leased, bought, commandeered, or built, but the recruits came in by the thousands and learned with such zeal and quickness as to gratify the older officers, and enabled the Navy to promptly perform every task intrusted to it.

Now, in conclusion, I call your attention to the testimony of a number of naval officers of the Navy which, in a nutshell, completely and fully answers

every allegation made in your hearings reflecting upon naval readiness when the call came:

1. Admiral Benson, Chief of Naval Operations, has told you that I gave him instructions to have everything in the Navy 100 per cent efficient, and I have no doubt that these instructions were carried out as far as was humanly possible.

2. A few officers have testified that I was so careful in watching expenditures that I delayed action on some matters. But no officer has testified that this interest in getting a dollar's worth of munitions and ships for every dollar expended denied the Navy a single ship or a single torpedo or a single thing needed in the World War that it was possible by urgent effort to provide. This twaddle about delay was completely refuted by Capt. Pratt, Assistant Chief of Operations, who was formerly chief of staff of Admiral Sims, whose statement I take from his testimony:

"The CHAIRMAN. With regard to that particular point; I have asked you whether any specific instances came to your attention of a lack of promptness on the part of the Secretary in dealing with matters of importance that came before him?

"Capt. PRATT. I do not know what difficulties, if any, Admiral Benson may have had. I am only qualified to speak of my dealing with the Secretary directly. I had heard all sorts of rumors, but when I came definitely to deal with him on certain specific plans, I got an immediate decision. I can tell you one case specifically. This is while I was Acting Chief of Naval Operations. There were two cases, in fact. Admiral Benson was abroad, and he sent a cable over recommending that the battleships be sent over. I handled it directly with the Secretary, and he approved it right off, and directed that Admiral Mayo be sent up in conference in order to settle the details. I got a decision right off.

"Another case was the case of the northern mine barrage. Capt. Belknap, who had worked the organization of the forces up very definitely, had reached a conclusion where it was necessary to have a final decision in the matter before we could proceed to carrying it into operation, because that meant projecting this body of ships and men abroad into European waters, and naturally, being a joint agreement, we had to get the Admiralty's approval to it. I went in with Capt. Belknap about 6 o'clock one evening, Admiral Benson then being abroad, and laid the question before him [Secretary Daniels], and he approved it right off."

3. Capt. Palmer has testified that "we never had a delay on account of not having the officers and men." The tables to which you refer for complements of ships in February and April, 1917, are based upon a so-called "war complement" in the summer of 1917, and not in February and April, for which information was asked. The so-called "complements" in the summer were not complements in any real sense of that word, and therefore any deductions made upon such tables are worthless. In 1917 men enlisted in the Navy so rapidly that we lacked facilities ashore to train them, and they were packed in on ships of all characters for training. To call such overcrowding in 1917 and 1918 a ship's "complement" is utterly misleading, though some officers in the Bureau of Navigation did so, and data furnished you was improperly based upon these abnormal so-called "complements." When the dreadnaughts under Admiral Rodman went to the North Sea, from 300 to 500 excess men were placed on every ship so as to be ready for any emergency or for casualties. Admiral Rodman pointed out that the men were crowded and "packed in like sardines in a tin, two and three deep at times in close, poorly ventilated berth-deck compartments." Because of the overcrowding during the war some officers formerly in the Bureau of Navigation reached the conclusion that the complement of the *New York*, for example, should be increased from 962 to nearly 1,500, and other ships in proportion. It is upon the basis of such absurd so-called "complements" that the personnel shortages have been figured, and any deductions based upon such figures are misleading and inaccurate. At the hearings before the House committee in 1918-19 the subject of complements for ships was gone into fully, and the House committee agreed with the Secretary of the Navy that estimates based upon such excessive complements—50 per cent, and sometimes more, over the complements of like British ships—ought not for a minute to be countenanced or approved. They regarded such "complements" as are included in the so-called deductions as (1) unnecessary from a military point of view, (2) uneconomical from a taxpayer point of view, and (3) insanitary from a medical and health point of view. In all three the argument against these excessive complements is unanswerable.

Admiral Mayo has testified that the Atlantic Fleet (the very backbone of fighting Navy) was "in the best condition of preparedness that it had ever been" on the 1st of April, 1917.

Admiral Plunkett has testified that "at the end of March, 1917, the gun-ery was at the highest state of efficiency that it has been in the history of the American Navy."

Admiral Rodman testified that "never have I seen in our battleship fleet a preparedness and efficiency as obtained at the beginning of and during the war."

Very truly, yours

JOSEPHUS DANIELS,
Secretary of the Navy.

DR. FREDERICK HALE,

*Chairman Subcommittee Committee on Naval Affairs,
United States Senate, Washington, D. C.*

NAVY DEPARTMENT.
BUREAU OF NAVIGATION,
Washington, D. C., May 31, 1920.

1: Bureau of Navigation.

Chief of Naval Operations.

Set: Personnel on board ships April 6, 1917.

On April 6, 1917, there were in the Navy the following ships of the first-

	Men.
endnaughts, requiring-----	11, 195
edendnaughts -----	10, 527
isers (all classes) -----	16, 168
stroyers -----	5, 889
arlines -----	888
Total -----	44, 447

the cruisers, certain ones, such, for example, as the *Raleigh*, the *Chicago*, *Arblehead*, the *Montgomery*, could not properly be classed as in the first r of real fighting value, but they are included in the above list, because, r old and slow, they later were utilized in the war.

re were also in addition to the above 12 very old battleships which were or training recruits and required in addition a total of 7,610 men, making d total of 52,277 men necessary to man all the foregoing vessels.

re were 64,680 regulars and about 11,502 reserves in the Navy on April it required 52,277 men to operate all the above fighting ships, leaving regulars and 11,502 reserves, or a surplus of about 23,900 men available other ships on the Navy Register and for shore needs.

enlistments and enrollments came in so rapidly after war was declared y the end of April there were 111,175 regular and reserves combined, : to man all the ships that were considered at that time available for z and for all other purposes needed. In this connection attention is to the statement of Capt. Palmer, former chief of the Bureau of Naviga- s follows: "I had the personnel ready at seaports to be put on vessels the vessels were ready. We never had a delay of a vessel on account of ing the officers and men." Of course, as Capt. Palmer also stated, they ot all trained, and it was necessary to place many new recruits on or training and to train the others in the shore training stations and

o officers, we had in April enough to man all the ships ordered to sea. course, some of these officers were reserves and temporary, recently sioned, the latter as a rule having had more or less practical experi- ily made them useful and readily serviceable. Meanwhile the former rapidly. A school for officers was opened at the Naval Academy, An- in the spring of 1917, where intensive instruction was given to spe- icted men, most of whom made good.

THOS. WASHINGTON,
Chief of Bureau of Navigation.

NAVY DEPARTMENT.
BUREAU OF ORDNANCE,
Washington, D. C., May 27, 1920.

To: Secretary of the Navy.

Subject: Tabular statement on which is shown projectiles on hand on all ships of the Navy and reserve projectiles on shore for all vessels under dates of February 2, 1917, and April 7, 1917.

1. My attention has been directed to the tabular statement prepared in the office of Chief of Naval Operations on which is shown the statement of projectiles as of dates February 2, 1917, and April 7, 1917.

2. The information in regard to projectiles on this statement was furnished to the Chief of Naval Operations in a memorandum from the Chief of Bureau of Ordnance under date of April 26, 1920, at the request of the Chief of Naval Operations made in his memorandum dated April 23, 1920.

3. You will note on this statement that, in so far as ordnance requirements are concerned, everything is satisfactory with the exception of:

(a) The *Indiana*, *Iowa*, and *Massachusetts* show no ammunition on board; these vessels were out of commission and their ammunition was not carried on board. However, by looking in paragraph IV of the table you will see that their ammunition was carried at the ammunition depot in the form of reserve and was ready to go on board as soon as the vessels were put in commission.

(b) The number of reserve 14-inch projectiles shown in paragraph IV is small for vessels with 14-inch guns. This was a matter which could not be helped by the department, as contracts had been placed as follows:

January 28, 1914, with Bethlehem Steel Co. for 2,400 projectiles.

March 27, 1915, with Bethlehem Steel Co. for 1,800 projectiles.

January 27, 1915, with Crucible Steel Co. for 840 projectiles.

August 7, 1915, with Washington Steel & Ordnance Co. for 2,000 projectiles.

All of these projectiles should have been delivered April 7, 1917, according to the terms of the contracts, and if they had been so delivered there would have been an ample number of 14-inch projectiles held in reserve for vessels carrying 14-inch guns.

(c) No projectiles are shown on hand or in reserve for the *Montgomery*. This vessel had been used as a torpedo-training vessel and had no battery on board; there were ample stocks of ammunition at the depots to supply ammunition to the vessel in whatever caliber might be required by the nature of her battery.

(d) No ammunition is shown as being on board the *Boston*; this vessel was being held for sale and her ammunition was not carried on board.

(e) No ammunition is shown on board the *Minneapolis*, *Marblehead*, *Cleveland*, and *Salem*. The *Marblehead* had been used for training personnel, and no ammunition was carried on board. By consulting Paragraph IV it will be seen that her full amount of ammunition was held in reserve for her. The *Salem* and *Minneapolis* were out of commission, no ammunition being carried on board. By consulting Paragraph IV it will be seen that their ammunition was reserved for them. The *Cleveland* was in ordinary, and no ammunition was carried on board. By consulting Paragraph IV it will be seen that there was sufficient ammunition in reserve for her.

4. In the table of destroyers it will be seen that there were no depth charges on board these vessels. No depth charges had been manufactured and delivered on the dates mentioned and, therefore, entry was made in the table that there were none on board.

C. C. BLOCH.
Captain, United States Navy.
Acting Chief of Bureau.

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, May 28, 1920.

From: Chief of Naval Operations and Chief of Bureau of Navigation.

To: Secretary of the Navy.

Subject: Readiness of ships of United States Navy, February and April, 1917.

1. The records of the department show the following vessels on the Navy list on February 1, 1917:

DREADNAUGHT BATTLESHIPS.

zona.	Nevada.	Pennsylvania.
ansas.	New York.	Texas.
aware.	North Dakota.	Utah.
rida.	Oklahoma.	Wyoming.

MODERN DREADNAUGHT BATTLESHIPS.

necticut.	Minnesota.	South Carolina.
rgia.	Nebraska.	Vermont.
sas.	New Hampshire.	Virginia.
lsiana.	New Jersey.	
nigan.	Rhode Island.	

OLD DREADNAUGHT BATTLESHIPS.

ama.	Kearsarge.	Missouri.
ois.	Kentucky.	Ohio.
ina.	Maine.	Oregon.
.	Massachusetts.	Wisconsin.

ARMORED CRUISERS.

erick	North Carolina.	San Diego.
ington.	Pittsburgh.	Seattle.
ana.	Pueblo.	South Dakota.

CRUISERS, FIRST, SECOND, AND THIRD CLASS.

eston.	Birmingham.	Marblehead.
uis.	Chattanooga.	Montgomery.
oga.	Chester.	New Orleans.
lyn.	Cincinnati.	Olympia.
go.	Cleveland.	Raleigh.
ibia.	Denver.	Salem.
apolis.	Des Moines.	Tacoma.
y.	Galveston.	

GUNBOATS.

olis.	Palos.	Princeton.
e.	Pampanga.	Ranger.
n.	Quiros.	Sandoval.
.	Sacramento.	Samar.
.	Yorktown.	Villalobos.
is.	Don Juan de Austria.	Wheeling.
acy.	Isla de Luzon.	Wilmington.
lle.	Marietta.	
h.	Newport.	

DESTROYERS.

.	Davis.	Lawrence.
.	Decatur.	Macdonough.
.	Drayton.	McCall.
dge.	Duncan.	McDougal.
.	Ericsson.	Monaghan.
.	Fanning.	Nicholson.
.	Flusser.	O'Brien.
.	Henley.	Parker.
3.	Hopkins.	Patterson.
.	Hull.	Paulding.
y.	Jacob Jones.	Paul Jones.
gs.	Jarvis.	Perkins.
am.	Jenkins.	Perry.
	Jouett.	Porter.
	Lamson.	Preble.

DESTROYERS—continued.

Preston.	Stewart.	Wainwright.
Reid.	Terry.	Walke.
Roe.	Grippe.	Warrington.
Rowan.	Truxtun.	Whipple.
Sampson.	Tucker.	Wilkes.
Smith.	Wadsworth.	Winslow.
Sterrett.	Worden.	

TORPEDO BOATS.

Bagley.	Dahlgren.	Goldsborough.
Bailey.	De Long.	Morris.
Barney.	DuPont.	Rodgers.
Biddle.	Farragut.	Shubrick.
Blakely.	Foote.	Somers.

MONITORS.

Amphitrite.	Ozark.	Tonopah.
Monterey.	Tallahassee.	

AUXILIARIES.

(Includes Navy transports, fuel ships, tenders, supply ships, mine ships, survey ship, etc.)

General Alava.	Dixie.	Jason.
Hancock.	Fulton.	Jupiter.
Buffalo.	Melville.	Kanawha.
Prairie.	Panther.	Mars.
Baltimore.	Celtic.	Maumee.
San Francisco.	Culgoa.	Nan-han.
Dubuque.	Glacier.	Neptune.
Hannibal.	Supply.	Nereus.
Lebanon.	Abarenda.	Nero.
Leonidas.	Ajax.	Orion.
Prometheus.	Arethusa.	Proteus.
Vestal.	Brutus.	Saturn.
Solace.	Caesar.	Sterling.
Alert.	Cyclops.	Vesuvius.
Bushnell.	Hector.	Vulcan.

CONVERTED YACHTS.

Alleen.	Hawk.	Sylvia.
Dorothea.	Huntress.	Vixen.
Eagle.	Mayflower.	Wasp.
Elfrida.	Scorpion.	Yankton.
Gloucester.	Sylph.	

TUGS.

Accomac.	Patapsco.	Sioux.
Active.	Patuxent.	Sonoma.
Apache.	Pawnee.	Sotoyoma.
Arapaho.	Pawtucket.	Standish.
Choctaw.	Penacook.	Tecumseh.
Fortune.	Pentucket.	Tillamook.
Hercules.	Peoria.	Traffic.
Iroquois.	Piscataqua.	Transfer.
Iwana.	Pocohontas.	Triton.
Massasoit.	Pontiac.	Unadilla.
Modoc.	Potomac.	Uncas.
Mohawk.	Powhatan.	Vigilant.
Narkeeta.	Rapido.	Waban.
Navaho.	Rocket.	Wahneta.
Ontario.	Samoset.	Wompatuck.
Osceola.	Sebago.	

SUBMARINES.

2 to A-7, inclusive (6).	H-2.
1 to B-3, inclusive (3).	H-3.
1 to C-5, inclusive (5).	K-1 to K-8, inclusive (8).
1 to D-3, inclusive (3).	I-1.
	I-2.
	I-3.
to F-3, inclusive (3).	I-4.
	I-9.
	I-10.
	I-11.

Of the above vessels, many were of no military value on account of age and general character, although possessing value for training personnel. The following vessels were of such fighting value as to be considered of service in battle engaged with vessels of their own class:

Name.	Displacement tonnage.	Building com- pleted.	Location.	
			Feb. 1, 1917.	Apr. 6, 1917.
DREADNAUGHTS.				
Alabama	31,400	1916	New York	Yorktown.
Arizona	28,000	1912	Cuba	Do.
Indiana	20,000	1910	do.	Do.
Mississippi	21,825	1911	do.	Do.
Nebraska	27,000	1916	do.	Do.
Oklahoma	27,000	1914	do.	Do.
Tennessee	20,000	1910	Philadelphia	Do.
Utah	27,500	1916	Cuba	Do.
Vermont	31,400	1916	do.	Do.
Washington	27,000	1914	do.	Do.
Wisconsin	21,825	1911	do.	Do.
Wyoming	26,000	1912	do.	Do.
IN PRE-DREADNAUGHTS.				
Albatross	16,000	1906	Cuba	Yorktown
Albatross	14,948	1906	Boston	Boston.
Albatross	16,000	1907	Philadelphia	Philadelphia.
Albatross	16,000	1906	Norfolk	Tangier Sound.
Albatross	16,000	1910	Cuba	Yorktown.
Albatross	16,000	1907	Philadelphia	Tangier Sound.
Albatross	14,948	1907	Boston	Boston.
Albatross	16,000	1908	Cuba	Norfolk.
Albatross	14,948	1906	New York	New York.
Albatross	14,948	1906	Boston	Tangier Sound.
Albatross	16,000	1907	Cuba	Philadelphia.
Albatross	16,000	1910	do.	Yorktown.
Albatross	14,948	1906	Boston	Boston.
MORE DREADNAUGHTS.				
Albatross	13,680	1905	Puget Sound	En route San Francisco.
Albatross	13,680	1905	San Diego	Mare Island.
Albatross	14,500	1908	Cuba	Wynne, Md.
Albatross	14,500	1908	Portsmouth	Portsmouth.
Albatross	13,680	1905	En route San Diego	San Diego.
Albatross	13,680	1905	San Francisco	Pichilingue.
Albatross	13,680	1907	San Diego	Mare Island.
Albatross	14,500	1906	Cuba	Yorktown.
Albatross	13,680	1908	Puget Sound	Puget Sound.
—FIRST, SECOND, AND THIRD CLASSES.				
Albatross	9,700	1905	Canal Zone	Canal Zone.
Albatross	9,700	1906	Honolulu	Honolulu.
Albatross	8,150	1893	Puget Sound	Puget Sound.
Albatross	9,215	1896	Manila	Manila.
Albatross	4,500	1899	Philadelphia	Philadelphia.
Albatross	7,350	1894	Pensacola	Hampton Roads.
Albatross	7,350	1894	Philadelphia	Philadelphia.
Albatross	3,430	1900	Puget Sound	Newport.
Albatross	3,750	1908	New York	New York.
Albatross	3,200	1904	Mare Island	Mare Island.
Albatross	3,750	1908	Boston	Boston.
Albatross	3,183	1894	Shanghai	Shanghai.
Albatross	3,200	1903	Mare Island	En route Hampton Roads.

3. The enlisted personnel situation of the Navy in February, 1917, was as follows:

On February 1, 1917, the number of enlisted men allowed by law was 700, exclusive of 6,000 apprentices, 350 flying corps, and about 3,200 hospital psmen, making a total of approximately 78,250 enlisted men. This number represented an increase from 51,500 authorized prior to the passage of the act August 29, 1916.

Commercial prosperity rendered recruiting difficult from the August, 1916, and in January, 1917, the number of enlisted men in the service was about 300 less than the total authorized, the actual number on February 1, 1917, being approximately 58,000, of whom 47,781 were afloat.

On March 24, 1917, the President by Executive order, under the emergency provisions of the act of August 29, 1916, increased the allowed enlisted strength 87,000, exclusive of 6,000 apprentices, 350 flying corps, and about 3,200 hospital corpsmen, which would make a grand total on that date of approximately 97,000.

On April 6, 1917, the number of enlisted men actually in the service was 80, of whom 50,121 were afloat, and the number of reserves on that date about 11,502. By this time recruiting had become very active, men were dily enlisting, and within probably 10 days the number of men actually dily to man all the ships and shore stations was enlisted. On April 30, there was a total of 111,175 men actually enlisted and available, whereas 87,785 were required at that time to man the ships and other activities, and afloat, as estimated by Operations.

Of the vessels listed in paragraph 2, above, as possessing such up-to-date ar qualifications as would render them suitable for action with enemy ships, following named were in the Atlantic Fleet in February and April, 1917, personnel on board as indicated:

Name.	Complement.		On board Feb. 2, 1917.		On board Apr. 6, 1917.	
	Officers.	Men.	Officers.	Men.	Officers.	Men.
DREADNAUGHTS.						
1.	51	1,006	48	997	47	928
2.	55	930	50	756	53	899
3.	53	894	47	768	49	810
4.	53	845	48	747	62	806
5.	51	999	49	875	49	808
6.	53	962	49	872	53	1,030
7.	53	847	14	274	36	556
8.	51	999	46	896	45	913
9.	51	951	50	1,042	49	1,061
10.	53	962	48	858	50	847
11.	53	845	46	661	49	784
12.	55	910	51	908	48	962
MODERN PRE-DREADNAUGHTS.						
13.	51	853	44	822	45	849
14.	51	798	13	243	19	510
15.	51	853	12	308	23	434
16.	51	853	17	338	27	561
17.	51	715	44	507	47	633
18.	51	853	18	338	28	527
19.	51	798	14	286	25	292
20.	51	853	20	457	26	435
21.	51	798	15	318	31	333
22.	51	798	14	280	26	514
23.	51	704	42	611	46	679
24.	51	853	18	448	23	434
25.	51	798	15	289	22	474
ARMORED CRUISERS.						
26.	41	845	24	444	24	446
27.	41	845	15	343	17	310
28.	41	777	27	620	36	899

Name.	Complement.		On board Feb. 2, 1917.		On board Apr. 6, 1917.	
	Officers.	Men.	Officers.	Men.	Officers.	Men.
CRUISERS, FIRST, SECOND, AND THIRD CLASS.						
Charleston.....	32	653	12	333	13	286
Chicago.....	20	264	4	98	4	98
Albany.....	14	297	11	270	11	286
Birmingham.....	19	354	8	188	17	239
Chattanooga.....	19	279	12	262	8	76
Chester.....	19	354	6	126	17	271
Cleveland.....	19	279	1	34	11	289
Denver.....	19	279	11	275	11	271
Des Moines.....	17	279	11	263	10	264
New Orleans.....	19	287	11	170	14	160
Olympia.....	25	329	22	304	22	306
Raleigh.....	19	259	12	254	12	251
Tacoma.....	17	279	11	274	11	286
DESTROYERS.						
Allen.....	5	98	4	33	4	96
Ammen.....	5	98	2	53	4	96
Alwin.....	5	96	5	85	4	91
Balch.....	5	96	5	87	4	91
Beale.....	5	98	2	44	4	60
Benham.....	5	96	5	87	5	92
Burrows.....	5	98	2	49	4	74
Cassin.....	5	96	5	81	5	94
Conyngnam.....	5	96	5	78	5	94
Cummings.....	5	96	4	80	5	94
Cushing.....	5	96	5	80	5	94
Davis.....	5	98	5	94	4	15
Drayton.....	5	98	4	75	4	79
Duncan.....	5	96	5	85	5	84
Ericsson.....	5	96	5	72	5	94
Fanning.....	5	94	4	73	4	90
Henley.....	5	98	2	49	4	55
Jacob Jones.....	5	96	5	83	5	94
Jarvis.....	5	98	4	76	4	80
Jenkins.....	5	98	2	63	5	72
Jouett.....	5	98	2	44	4	44
McCall.....	5	98	4	69	4	69
McDougal.....	5	96	5	84	5	91
Monaghan.....	5	98	2	54	4	64
Nicholson.....	5	96	5	84	6	92
O'Brien.....	5	96	5	85	5	90
Parker.....	5	96	5	88	5	90
Patterson.....	5	98	2	50	4	74
Paulding.....	5	98	2	73	4	48
Perkins.....	5	98	2	30	4	33
Porter.....	5	96	5	77	5	94
Roe.....	5	98	2	52	4	45
Rowan.....	5	98	5	97	5	95
Sampson.....	5	96	5	83	5	33
Sterrett.....	5	98	2	47	4	44
Terry.....	5	98	2	42	4	42
Trippe.....	5	98	2	45	4	64
Tucker.....	5	96	5	81	5	95
Wadsworth.....	5	96	5	79	5	94
Wainwright.....	5	96	4	83	6	93
Walke.....	5	98	2	44	4	53
Warrington.....	5	98	2	48	4	62
Wilkes.....	5	98	5	92	5	94
Winslow.....	5	96	5	83	5	99

5. The vessels of the Atlantic Fleet listed in the preceding paragraph were, on April 6, 1917, materially ready for war service, except as noted in detail below:

DREADNAUGHTS.

North Dakota.—Required installation of new main engines. Engines did not become available for installation until July 1, 1918. Meanwhile vessel operated with fleet and continued valuable for training personnel.

Maine.—Renewing headers in main boilers. Left navy yard on July 3, 1917.

Nebraska.—Renewing thrust and line shafting of both main engines. Left navy yard on July 10, 1917.

New Hampshire.—Renewing thrust and line shafting of both main engines. Left navy yard on July 10, 1917.

New Jersey.—Miscellaneous overhaul work. Left navy yard on August 25, 1917.

Vermont.—General overhaul, especially of main engines. Left navy yard on August 25, 1917.

Virginia.—Retubing main boilers. Left navy yard on August 25, 1917.

ARMORED CRUISER.

North Carolina.—Installing new tube sheets, main condenser 4-inch tubes, main boilers, manufacturing and fitting couplings, overhauling pumps, installing one high-pressure cylinder in main engines. Left navy yard on May 5, 1917.

CRUISERS, FIRST, SECOND, AND THIRD CLASS.

Chicago.—Overhauling boilers, relining forward smokestack. Left navy yard on August 15, 1917.

Chattanooga.—General overhaul. Left navy yard on April 17, 1917.

New Orleans.—General overhaul. Left navy yard on August 2, 1917.

Raleigh.—Overhaul of main boilers. Left navy yard on May 1, 1917.

DESTROYERS.

Ammen.—Completed overhaul at navy yard, New York, on April 1, 1917. Returned to navy yard, Philadelphia, on May 5, 1917, for distant service and general machinery overhaul. Left Philadelphia on May 1, 1917. Time taken to fit out, 25 days.

Aylwin.—Under repairs at Charleston resulting from collision with *Drayton* on February 11, 1917. Left Charleston on April 12, 1917.

Balch.—Main starboard turbine stripped March 23, 1917. Arrived Norfolk, April 14, 1917, for repairs. Left Norfolk, repairs completed May 1, 1917.

Beale.—Boilers in bad condition. Operating off Port Delaware on April 1, 1917, when arrived at navy yard, Philadelphia, for retubing of boilers. Completed retubing on September 11, 1917. Ship left yard on same day. Time at yard, 130 days.

Burrows.—On limited duty off port of New York. Went to Philadelphia on May 5 for repairs to faulty condensers and general repair work. Left Philadelphia, June 2, 1917. Time for repairs, 27 days.

Cassin.—Unreliable maneuvering valves for main engines. On April 26, 1917, when arrived at navy yard, Norfolk, for renewal of valves and minor repairs and fitting out for distant service. Left Norfolk, on May 4, 1917, for Boston to join division to go abroad. Time at Norfolk, 7 days.

Cummings.—Unreliable maneuvering valves for main engine until May 3, 1917, when vessel arrived at navy yard, Philadelphia, for renewal of faulty valves, minor repairs, and fitting out for distant service. Left Philadelphia on May 12 for New York to join division going abroad. Time at Philadelphia, 10 days.

Cushing.—Main turbines damaged, faulty feed pumps, and condenser. Arrived at navy yard, New York, for repairs on March 31, 1917. Repairs completed May 12, 1917. Left navy yard May 13, 1917, for distant service. Time at yard under repairs, 43 days.

Fanning.—In need of general repairs, due to long service, as shown in his letter of April 7, 1917. Arrived at Philadelphia Navy Yard on April 13, 1917. Repairs completed May 1, 1917. Days under repairs, 35.

Henley.—Available for limited operation. Faulty main engines and boilers. New type of engines to be installed and boilers retubed. This work undertaken at navy yard, Philadelphia, on November 7, 1917, and was completed December 28, 1918. Time at navy yard, Philadelphia, 416 days.

Jarvis.—Faulty condensers and other general items of repair. Arrived navy yard, Philadelphia, March 3, 1917; left May 10, 1917, repairs completed. Time at Philadelphia, 67 days.

Jenkins.—Boilers (forced-draft blowers) reported in bad condition. Under repair at navy yard, Norfolk, Va., from April 17, 1917, to May 1, 1917. Went to Boston yard and continued repairs and fitting out from May 3, 1917, to May 22, 1917. Time under repairs at Norfolk, 23 days. Time under repairs at Boston, 19 days.

Jouett.—Boilers in bad condition. Vessel available for limited service and kept in operation until September 6, 1918, when repairs to boilers began at Philadelphia Navy Yard. Work completed February 15, 1919.

McCall.—Boilers No. 3 and No. 4 and both main condensers in need of retubing; also general overhaul. Repairs under way at navy yard, Philadelphia, beginning March 10, 1917, and ending May 23, 1917. Time at Philadelphia, 74 days.

Monaghan.—Doing limited service. In need of general overhaul, which was undertaken at navy yard, Charleston, from May 3, 1917, to June 19, 1917, when vessel was ready for distant service. Time at Charleston, 46 days.

O'Brien.—Faulty main air pumps. Vessel operative until May 1, 1917, when arrived at navy yard, New York, for repairs and fitting out. Left navy yard, New York, May 13, 1917. Time under repair, 13 days.

Parker.—In service until May 1, 1917, when vessel went to navy yard, Norfolk, for machinery and boiler overhaul. Finished overhaul on June 15, 1917. Time at Norfolk navy yard, 46 days.

Sterrett.—Under repairs, consisting of general machinery overhaul, at navy yard, Charleston, from March 29, 1917, to April 28, 1917. Time under repairs at Charleston, 30 days.

Terry.—Under repairs at navy yard, Charleston. Boilers in only fair condition, having arrived at yard during 1916. Repairs completed April 15, 1917. On April 22, 1917, main condensers developed leaks. Condensers retubed at navy yard, Charleston, from May 9 to 21, 1917.

Walke.—Propellers damaged and starboard tail shaft sprung by collision with bell buoy on April 5, 1917. Placed under repairs at navy yard, New York, on April 6, 1917. Completed April 23, 1917. Time at navy yard, New York, 17 days.

Warrington.—Main shafting out of line and boilers in poor condition. *Warrington* continued in service until May 6, when she arrived at Boston Navy Yard for repairs and fitting out for distant service. Only temporary repairs were made to boilers and no permanent repairs made to shafting. Left navy yard, Boston, on May 21, 1917, for distant service. Time at navy yard under repairs, 15 days.

Wilkes.—Engaged on only limited operations, due to faulty evaporating plant. Arrived navy yard, New York, for repairs and fitting out for distant service on May 2, 1917. Left navy yard, New York, June 11, 1917. Time at navy yard, New York, 40 days.

6. The destroyers not mentioned in this list were those in material condition to be immediately available for assignment to distant service. In case of assignment to distant service either in peace or war a fitting-out period would be required. This program was carried out in the case of all destroyers that went abroad during the war and was a necessary part of the operations, the same as it would be now with any destroyer in good condition that we might select for duty on a distant station.

R. E. COONTZ,
Admiral, United States Navy,
Chief of Naval Operations.
THOS. WASHINGTON,
Rear Admiral, United States Navy,
Chief of Bureau of Navigation.

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, May 29, 1920.

From: Capt. B. F. Hutchison, United States Navy.

To: The Secretary of the Navy via the Chief of Naval Operations.

Subject: Information for Senator Hale.

In compliance with orders received from the Chief of Naval Operations, herewith is transmitted herewith a statement showing the number of men and Marines on board the vessels for the months of February, April, and July, which appear on the tabulated form forwarded to Senator Hale on April 29, 1920.

This data was compiled from the official records in the Enlisted Personnel Division of the Bureau of Navigation and Marine Corps. The complement shown is the complement authorized by the Bureau of Navigation prior to July 6, 1917.

B. F. HUTCHISON.

(First indorsement.)

To: Chief of Naval Operations.

From: The Secretary of the Navy.

Subject: Information for Senator Hale.

Forwarded.

R. E. COONTZ.

DREADNAUGHTS.¹

Name.	Complement.	Men on board, 1917.					
		Feb. 2.		Apr. 6.		July 1.	
		Sailors.	Marines.	Sailors.	Marines.	Sailors.	Marines.
Alabama.....	1,006	997	73	928	83	1,354	76
Albatross.....	930	756	72	899	76	1,283	81
Albatross.....	999	768	62	810	65	1,247	63
Albatross.....	845	747	60	806	66	1,042	69
Albatross.....	969	875	75	808	77	1,200	77
Albatross.....	962	872	77	1,030	77	1,268	77
Albatross.....	847	274	.....	556	64	1,134	64
Albatross.....	969	866	74	913	77	1,272	73
Albatross.....	961	1,042	96	1,061	94	1,300	91
Albatross.....	962	858	71	847	72	1,194	66
Albatross.....	845	661	65	784	62	1,092	58
Albatross.....	910	908	82	962	78	1,413	78

Complement of marines on above-named ships was 75 except for North Dakota and Delaware on which complement was 64. The complement of marines on the Utah was also 64.

PREDREADNAUGHTS.¹

Albatross.....	853	822	68	849	65	1,162	61
Albatross.....	798	243	.....	510	.....	973	.....
Albatross.....	853	308	.....	434	.....	1,054	.....
Albatross.....	853	338	.....	561	64	1,235	64
Albatross.....	706	362	.....	383	.....	630	.....
Albatross.....	715	507	63	633	62	911	65
Albatross.....	853	338	.....	527	68	1,133	68
Albatross.....	706	211	.....	372	.....	861	.....
Albatross.....	796	286	.....	292	68	296	64
Albatross.....	853	457	.....	435	67	1,203	62
Albatross.....	798	318	.....	333	66	954	69
Albatross.....	706	253	.....	254	.....	675	.....
Albatross.....	798	280	64	514	.....	890	60
Albatross.....	704	611	62	679	65	856	64
Albatross.....	853	448	.....	434	.....	906	.....
Albatross.....	798	289	.....	474	.....	1,042	.....

¹ Complement of marines on above-named ships was 64.

NAVAL INVESTIGATION.

OLD BATTLESHIPS.¹

Name.	Complement.	Men on board, 1917.					
		Feb. 2.		Apr. 6.		July 1.	
		Sailors.	Marines.	Sailors.	Marines.	Sailors.	Marines.
Alabama.....	610	215	40	396		705	
Illinois.....	610	701		* 1,107		702	
Indiana.....	595					621	
Iowa.....	601						
Kearsarge.....	638	242		249		606	
Kentucky.....	638	226		206		606	
Massachusetts.....	595					452	
Oregon.....	595	231		222		537	
Wisconsin.....	610	178		205		643	

¹ The above old battleships, of no military value, were used for training purposes and no marines were assigned to them.

* Training.

CRUISERS.¹

Albany.....	297	270		296		328	
Birmingham.....	354	188		229		416	
Boston.....							71
Brooklyn.....	504	538	38	440	69	567	
Charleston.....	653	333		306		729	
Chattanooga.....	279	262		76		280	
Chester.....	354	126		271		386	
Chicago.....	264	98		93		428	
Cincinnati.....	259	163	41	235	40	259	33
Cleveland.....	279	34		280		311	
Columbia.....	436	390	19	366	19	524	26
Denver.....	279	275	40	271	40	300	42
Des Moines.....	279	263	38	298	38	293	20
Frederick.....	777	341		367		586	
Galveston.....	279	250	39	254	39	256	37
Huntington.....	777	444		411		1,059	
Marblehead.....	245	48		47		242	
Minneapolis.....	360						
Montana.....	845	444	62	446	62	941	67
Montgomery.....	245	40		38		264	
New Orleans.....	297	170		160		969	
North Carolina.....	845	343		310		969	
Olympia.....	329	304	33	356	40	342	39
Pittsburgh.....	777	350	72	797	75	959	72
Pueblo.....	777	623		576	69	904	67
Raleigh.....	259	254		251		260	
Salem.....	354						
San Diego.....	777	805		404		1,034	
Rochester.....	502	214		201		464	
Seattle.....	777	629	69	809	61	859	58
St. Louis.....	653	246		268		775	
South Dakota.....	777	398		377		900	
Tacoma.....	279	274		266		298	

¹ The complement of marines on the above cruisers was 64, except for the Columbia, Cincinnati, Denver, Des Moines, and Galveston, on which the complement was 40.

DESTROYERS.

Name.	Complement.	Men on board, 1917.			Name.	Complement.	Men on board, 1917.		
		Feb. 2.	Apr. 6	July 1.			Feb. 2.	Apr. 6	July 1.
Allen.....	98	33	96	107	Cassin.....	96	81	94	99
Ammen.....	88	53	96	94	Chauncey.....	82	79	74	71
Aylwin.....	96	85	91	107	Conyngham.....	96	78	88	98
Bainbridge.....	76	56	84	80	Cummings.....	96	80	98	102
Balch.....	96	87	98	119	Cushing.....	96	80	98	105
Barry.....	75	60	76	71	Dale.....	74	67	74	107
Beale.....	88	44	60	95	Davis.....	98	98	115	108
Benham.....	96	87	92	44	Decatur.....	74	73	78	83
Burrows.....	88	49	74	96	Downes.....	96	20	24	103

Name.	Com- ple- ment.				Name.	Com- ple- ment.			
		Feb. 2.	Apr. 6.	July 1.			Feb. 2.	Apr. 6.	July 1.
Drayton.....	88	75	79	101	Perkins.....	88	30	53	95
Duncan.....	96	85	88	95	Perry.....	79	40	56	80
Eriesson.....	96	72	86	103	Porter.....	96	77	94	105
Fanning.....	88	73	90	99	Preble.....	79	45	64	80
Flusser.....	84	52	64	94	Preston.....	84	39	51	101
Hen'ey.....	88	49	55	85	Reid.....	84	54	34	90
Hopkins.....	79	50	75	75	Roe.....	88	52	45	93
".....	79	40	58	81	Rowan.....	98	97	95	98
Jacob Jones.....	96	83	74	100	Sampson.....	98	83	33	134
Jarvis.....	88	76	80	97	Shaw.....				114
Jenkins.....	88	63	72	96	Smith.....	84	74	80	91
Jouett.....	88	44	44	87	Sterrett.....	88	47	48	47
Lamson.....	84	57	69	90	Stewart.....	74	42	76	73
Lawrence.....	79	40	70	75	Terry.....	88	42	42	93
Madonough.....	79	30	57	75	Tripp.....	88	45	64	98
McCall.....	88	69	69	69	Truxton.....	77	41	77	78
McDougal.....	96	84	91	101	Tucker.....	96	81	95	111
Mayrant.....	88				Wadsworth.....	96	79	98	104
Monaghan.....	88	54	64	80	Wainwright.....	96	83	93	102
Nicho son.....	96	84	92	106	Walke.....	88	44	53	84
O'Brien.....	96	85	100	108	Warrington.....	88	48	62	98
Parker.....	96	88	90	110	Whipple.....	72	38	73	80
Patterson.....	88	56	74	95	Wilkes.....	98	92	96	107
Paulding.....	88	73	48	95	Winslow.....	96	83	99	104
Paul Jones.....	79				Worden.....	79	40	55	68

Shaw was commissioned Apr. 9, 1917; completed May 25, 1917; sailed from Mare Island May 26, 1917.

The CHAIRMAN. When I say "fully manned," I mean with full war complement, which was what the letter asked for.

Secretary DANIELS. How many men did you put on there at once?

The CHAIRMAN. No figures were given as to the number of men on. The figure was given of the percentage of those men who were on, which was 93 per cent on February 2 and 87 per cent on April 6, 1917. The actual figures were not given, except as to the percentages.

Secretary DANIELS. I will furnish them to you.

The CHAIRMAN. Very well.

NOTE.—The following communication was subsequently received from Secretary Daniels, and is here inserted in the record:

THE SECRETARY OF THE NAVY,
Washington, June 1, 1920.

HON. FREDERICK HALE,

Chairman Subcommittee, Committee on Naval Affairs,
United States Senate, Washington, D. C.

MY DEAR SENATOR: In my hearing before your committee on Wednesday morning, May 26, 1920, after presenting what you called deductions based on the information contained in the table submitted by the Office of Operations, the following colloquy took place (p. 7391):

"Secretary DANIELS. How many men did you put on there at once?

"The CHAIRMAN. No figures were given as to the number of men on. The figure was given of the percentage of those men who were on, which was 93 per cent on February 2 and 87 per cent on April 6, 1917. The actual figures were not given, except as to the percentages.

"Secretary DANIELS. I will furnish them to you.

"The CHAIRMAN. Very well."

In my question there seems to be a stenographic error, for I asked how many men you put on the *Arizona*. As the record reads, there is no mention of the

Arizona, but it is clearly an omission. In accordance with the above, I append hereto the figures requested :

Designed complement.....	1,000
Bureau of Navigation complement, Feb. 2, 1917.....	1,006
On board Feb. 2, 1917.....	997
Bureau of Navigation complement, April 16, 1917.....	1,006
On board Apr. 6, 1917.....	928

Sincerely, yours,

JOSEPHUS DANIELS.

The CHAIRMAN. In other words, this shows that on February 2, 1917, 26 per cent of the fleet was reported as fit in material, and 74 per cent of the fleet had an average of 60 days of repair essential for war service, to be made. Only 2 per cent of the vessels were fully manned, and 98 per cent of them averaged but 50 per cent manned.

On April 6, 1917, that is 63 days later, 33 per cent were reported as fit in material, and 67 per cent of the fleet had an average of 67 days repairs necessary to be done.

On 10 per cent of the vessels were fully manned and 98 per cent of them averaged to be but 57 per cent.

In short, these figures presented by the Navy Department show that we went into the war with two-thirds of our fleet not in proper material condition for instant war service abroad, and requiring two months of repair on an average, and with but 10 per cent of the fleet up to their full war complement, and 90 per cent of it with less than three-fifths of its full war complement.

I want the wording of this to comply absolutely with the request made to the department to furnish the information, and if in any case it does not do so, it is an unintentional mistake.

The rest of this table, parts of which I have not read, I will put in the record without reading. There is no need of reading it to you now, is there?

Secretary DANIELS. None in the world.

The CHAIRMAN. I have made corrections in regard to the matter of wording.

Secretary DANIELS. I wish again to protest against such interpretations, which are not correct, going in the record.

The CHAIRMAN. Yes. How do you know they are not correct?

Secretary DANIELS. That is my opinion.

The CHAIRMAN. You think they are not correct from the figures that are given here?

Secretary DANIELS. It is my opinion they are not correct.

The CHAIRMAN. From the figures given by you?

Secretary DANIELS. From your own interpretation.

The CHAIRMAN. In what way do you mean, Mr. Secretary?

Secretary DANIELS. I mean that the interpretation that you have made of this statement and of Admiral McKean's testimony is not borne out.

The CHAIRMAN. Do you mean that the figures are wrong? Do you mean there are mistakes in the figures?

Secretary DANIELS. I mean your interpretations are not correct.

The CHAIRMAN. I wish you would show me how, because I wish it to comply—

as taken entirely from these figures furnished by you, and that is the intention.

Secretary DANIELS. I can not deny your right to do that; but I can not assent to it.

The CHAIRMAN. Yes. You do not condemn it before you see it, do you, Mr. Secretary?

Secretary DANIELS. What I have heard, I said, was not correct. That is my understanding.

The CHAIRMAN. Do you mean there are some mistakes in the tabulation?

Secretary DANIELS. No; I mean that your interpretations are not correct, as I understand it.

The CHAIRMAN. I wish you would point it out to me, because I wish to make the correction before putting it in.

Secretary DANIELS. I could do so in time, but I could not do so now.

The CHAIRMAN. Now, I ask you, Mr. Secretary, from this tabulation which I have put in, if you have any question about its correctness; and if so, you will call attention to any errors that have been made; and if not, does it not show that the Navy was not in a very perfect state of preparedness at the outbreak of war in 1917?

Secretary DANIELS. I have told you that I do not accept these conclusions and that I shall refer your deductions to experts, and then I shall make a statement to your committee.

The CHAIRMAN. The committee will stand adjourned until 2.30 this afternoon.

(Thereupon, at 1 o'clock p. m., the subcommittee took a recess until 2.30 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee met at 2.30 o'clock p. m., pursuant to adjournment, Senator Frederick Hale (chairman) presiding.

TESTIMONY OF HON. JOSEPHUS DANIELS, SECRETARY OF THE NAVY—Resumed.

Secretary DANIELS. Mr. Chairman, since the adjournment of the morning session I have taken the matter up with Capt. Hutchison of your question, and he tells me that he filled up some blanks in a document for you, in which he stated, or some officer stated for him, the number of days' repair on certain ships, and he is making an examination in the Bureau of Operations, and he is preparing, and I will furnish you, a statement of every ship, of the number of men on it, of the personnel, the number according to the complements when the ships were put in commission, and the number of the fleet, of the highest number required in time of war, showing for every ship how many men it had on it, and also the character of repairs, which will show whether the repairs made it ready for war or only incidentally, and I will have that ready for you shortly.

The CHAIRMAN. Very well.

Secretary DANIELS. A few days ago you asked me and I gave you some percentage figures in the matter of projectiles and mines, torpedoes, and smokeless powder. You asked me to furnish the number. I have had the Bureau of Ordnance make up a statement of that which I herewith present.

The CHAIRMAN. That will be inserted in the record.

Secretary DANIELS. I have authenticated the percentages in that. They vary one-half of 1 per cent in certain cases, but I have had that authenticated by the Bureau of Ordnance.

The CHAIRMAN. This does not give the numbers that were on hand at the time of the opening of the war.

Secretary DANIELS. Mr. Chairman, it gives exactly the information you asked for. You asked for certain percentages on certain dates, and I have given exactly the number. You said you wanted the number as well as the percentages.

The CHAIRMAN. But I also wanted them on the date when war was declared.

Secretary DANIELS. You did not ask that question.

The CHAIRMAN. Then I would like to have that also.

Secretary DANIELS. Suppose I take that back and have it added, then.

The CHAIRMAN. Yes. [Returning paper to Secretary Daniels.]

Secretary DANIELS. I gave your question to the Bureau of Ordnance and they answered it exactly as you gave it.

NOTE.—The following communication was subsequently received from Secretary Daniels and is here inserted in the record:

THE SECRETARY OF THE NAVY,
Washington, June 1, 1920.

Hon. FREDERICK HALE,

Chairman subcommittee Senate Naval Affairs Committee.

MY DEAR SENATOR: At my hearing before your committee, Wednesday, May 26, afternoon session, I presented a table showing the percentages and numbers of increases of ordnance equipment for the McKinley-Roosevelt, Roosevelt, Taft, and Wilson administrations, from March 4, 1901, to September 1, 1916, and this colloquy followed (Testimony, p. 7395):

"The CHAIRMAN. This does not give the numbers that were on hand at the time of the opening of the war.

"Secretary DANIELS. Mr. Chairman, it gives exactly the information you asked for. You asked for certain percentages on certain dates, and I have given exactly the number. You said you wanted the number as well as the percentages.

"The CHAIRMAN. But I also wanted them on the date when war was declared.

"Secretary DANIELS. You did not ask that question.

"The CHAIRMAN. Then I would like to have that also.

"Secretary DANIELS. Suppose I take that back and have it added, then.

"The CHAIRMAN. Yes. [Returning paper to Secretary Daniels.]

"Secretary DANIELS. I gave your question to the Bureau of Ordnance, and they answered it exactly as you gave it."

You thus requested me to furnish the numbers on hand when war was declared. Complying with your request, I am inclosing herewith the table with a statement by Capt. C. C. Bloch, Acting Chief of the Bureau of Ordnance, giving all the information requested.

Sincerely, yours,

JOSEPHUS DANIELS.

To: Secretary of the Navy.

Subject: Hearings of the Secretary of the Navy at Senate investigation of preparedness of the Navy for war.

My DEAR MR. SECRETARY: You have asked me to supplement the table prepared for you in the Bureau of Ordnance by giving the total number of projectiles, torpedoes, mines, and amount of smokeless powder on hand under date of April 1, 1917. This information has already been supplied to the chairman of the subcommittee, Senator Hale, in connection with the testimony given by Rear Admiral Strauss. The aggregates requested to be supplied are as follows:

On hand April 1, 1917:

Projectiles-----	1, 179, 376
Torpedoes-----	2, 384
Mines-----	3, 832
Smokeless powder-----	pounds-- 50, 726, 275

These figures, as well as those given to the chairman of the subcommittee in connection with the testimony of Rear Admiral Strauss, are valueless without explanation. The requirements shown in the table furnished in connection with Admiral Strauss's testimony give the total requirements for all ships built or building, while the amounts on hand only indicates amounts of each article which had been delivered, and in another column those which had been ordered. The vessels projected at that date have not yet all been completed, and the requirements might seem unduly large and the amounts on hand similarly unduly small. For instance, while there were on hand only 8,907 14-inch projectiles on April 1, 1917, there were on order 25,577. The projectiles on hand of this caliber were sufficient to supply all ships in commission which carried 14-inch guns and to supply a small reserve in addition. Even this reserve would have been adequate had contractors for over 6,000 of these projectiles met their contractual obligations and delivered the projectiles which they had contracted to deliver in accordance with the terms of their contracts. In the cases of the 13-inch, 12-inch, 10-inch, 8-inch, and 7-inch calibers—in every case there were more projectiles on hand than were required for the guns afloat of ships built, even after providing over 100 per cent of reserve for these guns.

The smaller calibers of projectiles were so easily and quickly produced that they could be delivered at any time to meet almost all requirements.

In regard to torpedoes, there were on hand on April 1, 1917, 2,384, while there were required a total of 2,694, one-half of which were required to be afloat—the other half being held in reserve on shore. By inspecting these figures it can be seen that there was an ample number of torpedoes for all vessels afloat and a large proportion of the desired reserve.

On April 1, 1917, there were on hand 50,726,275 pounds of powder. For the guns of all vessels built there were required for service afloat and for providing over 100 per cent reserve for these guns, 52,072,850 pounds, from which it can be seen that there was sufficient powder for all guns afloat and approximately 100 per cent reserve on shore for these guns.

On this date there were on hand only 3,832 mines. However, there were under construction, a large number of which were well advanced towards completion, 15,400 mines. This will show that this most important weapon had not been neglected but that the Bureau of Ordnance was bending every effort to provide the number required by the service.

C. C. BLOCH,
Captain, United States Navy.
Acting Chief of Bureau.

Administration.	Period.	Size.	Quantity.	Value.	Percentage.	Percentage given in Secretary's bearings.
PROJECTILES.						
McKinley - Roosevelt.	Mar. 4, 1901, to Mar. 3, 1905	13-inch.... 12-inch.... 10-inch.... 8-inch.... 7-inch.... 6-inch.... 5-inch.... 4-inch.... 3-inch.... 6-pounder 3-pounder 1-pounder	1,905 3,716 2,100 7,693 4,200 20,552 6,229 1,360 127,898 25,000 55,000 99,000			
Total.....			360,653	\$2,291,621.40	5.0	5.1
Roosevelt.....	Mar. 4, 1905, to Mar. 3, 1909.	13-inch.... 12-inch.... 8-inch.... 7-inch.... 6-inch.... 5-inch.... 3-inch.... 6-pounder	500 6,600 5,500 12,392 33,000 20,000 146,835 36,000			
Total.....			260,827	4,065,238.72	8.9	8.6
Taft.....	Mar. 4, 1909, to Mar. 3, 1913.	14-inch.... 12-inch.... 10-inch.... 8-inch.... 7-inch.... 6-inch.... 5-inch.... 4-inch.... 3-inch....	4,640 21,900 2,900 18,250 9,000 14,000 52,800 10,000 52,075			
Total.....			185,515	10,736,486.50	23.7	22.4
Wilson.....	Mar. 4, 1913, to Sept. 1, 1916 (includes authorizations in act of Aug. 29, 1916).	16-inch.... 14-inch.... 12-inch.... 6-inch.... 5-inch.... 4-inch.... 3-inch.... 1-pounder	10,000 24,140 1,800 77,000 335,000 321,600 681,940 529,000			
Total.....			1,980,480	28,338,568.35	62.4	63.9
TORPEDOES.						
McKinley - Roosevelt.	Mar. 4, 1901, to Mar. 3, 1905.		52		.9	.9
Roosevelt.....	Mar. 4, 1905, to Mar. 3, 1909.		550		9.8	9.4
Taft.....	Mar. 4, 1909, to Mar. 3, 1913.		980		17.4	18.2
Wilson.....	Mar. 4, 1913, to Sept. 1, 1916 (including those appropriated for in act of Aug. 29, 1916).		4,064		71.9	71.5
MINES.						
McKinley - Roosevelt, Roosevelt-Taft.	Mar. 4, 1901, to Mar. 3, 1913.		889		9.5	9.5
Wilson.....	Mar. 3, 1913, to Sept. 1, 1916 (including authorization in act of Aug. 29, 1916).		8,458		90.5	90.5
SMOKELESS POWDER.						
McKinley - Roosevelt.	Mar. 4, 1901, to Mar. 3, 1905.		Pounds. 10,018,742		13.5	17.1
Roosevelt.....	Mar. 4, 1905, to Mar. 3, 1909.		15,843,863		21.3	20.0
Taft.....	Mar. 4, 1909, to Mar. 3, 1913.		18,074,924		24.3	28.4
Wilson.....	Mar. 3, 1913, to Sept. 1, 1916 (includes authorizations of act of Aug. 29, 1916).		30,435,000		40.9	39.5

Secretary DANIELS. I will try to assist you, Mr. Chairman.

The CHAIRMAN. And I hope where there are statements that have been already made that you may wish to put in, you can refer to them and they can be put in the record, so far as possible.

Secretary DANIELS. I will do all I can.

The CHAIRMAN. Mr. Secretary, you have heard some of the admirals of the American Navy testified that Admiral Sims's attack upon the work of the American Navy during the war was wholly unwarranted and grossly exaggerated. Did the confidential instructions given by Admiral Benson to Admiral Sims indicate clearly that we were about to enter the war against Germany, and that we would wage war aggressively?

Secretary DANIELS. Admiral Benson, so far as I know, gave no confidential instructions to Admiral Sims—do you mean before he left here?

The CHAIRMAN. Yes.

Secretary DANIELS. I do not know what instructions he gave him. I gave him instructions when he left here to go to Great Britain, to go to see our ambassador, to confer with the British Admiralty, to get into close touch with the British Admiralty and other Allies, and we were then a neutral Nation, and that he should keep the wires open and cable us fully. Of course I could not have said at that time anything, or until the 6th of April, when the war was declared. Of course there was nothing in the mind of anyone except to wage war most vigorously, from the time Congress gave us power.

The CHAIRMAN. You are familiar with the instructions that Admiral Sims states he received from Admiral Benson before he went abroad; I mean that he must not allow the British to pull the wool over his eyes, and that we would as soon fight the English as the Germans?

Secretary DANIELS. I have read that. I never heard of it until in Admiral Sims's statement.

The CHAIRMAN. That would not indicate that we were then about to enter into war with Germany, would it?

Secretary DANIELS. I am not interpreting what Admiral Benson said. You had him on the stand about that. I never heard of it until Admiral Sims wrote it.

The CHAIRMAN. I am trying to find out what the policies were.

Secretary DANIELS. Of course there was never any thought of anything, from the time Admiral Sims was in my office, except that we would have war with Germany, and we would wage it aggressively and earnestly, as we could.

The CHAIRMAN. There was never any thought of anything else?

Secretary DANIELS. No, sir.

The CHAIRMAN. In the department?

Secretary DANIELS. No, sir. At the time Admiral Sims left he went to get ready for that.

The CHAIRMAN. Admiral Benson stated that we kept our fleet intact on this side for fear the Germans might break through the English fleet and attack the United States. Was that a bold and audacious policy?

Secretary DANIELS. How is that?

The CHAIRMAN. I say, was that a bold and audacious policy?

Secretary DANIELS. You say Admiral Benson stated that he kept the fleet over here—

The CHAIRMAN. Intact, on this side, because the Germans might break through the British fleet and attack the United States.

Secretary DANIELS. It was kept over here in pursuance of the request of the Allied Naval Council and of the British Admiralty, ready for any offensive action that might be necessary.

The CHAIRMAN. Then it was not kept over here for fear that the Germans might break through the British fleet and attack the United States?

Secretary DANIELS. It was kept for any reason of necessity, to be used against the enemy. As to the exact purpose and purposes, I can only say that it was my direction to Operations to organize the fleet and all our ships for the most offensive and aggressive action possible.

The CHAIRMAN. If Admiral Benson did state that it was kept over here for fear that the Germans might break through the British fleet, that would not be a very bold and audacious policy, would it?

Secretary DANIELS. I think if you will read his testimony in full, the policy of the department was to use the fleet in the most effective and aggressive way possible. Sometimes the best policy, of course, is a defensive; but our policies were bold and aggressive. But of course there are always reserves.

The CHAIRMAN. Yes; but keeping the fleet over on this side for fear that the Germans might break through would not be a bold and audacious policy, would it?

Secretary DANIELS. If the Allies and the naval council requested us to keep the fleet over here, as they did—I have here their letter. Admiral Sims says as follows in *World's Work* [reading]:

There were almost as many conflicting opinions as there were minds. Certain authorities believed that our whole North Atlantic Fleet should be moved immediately into European waters. Such a maneuver was not only impossible, but it would have been strategically very unwise; indeed such a disposition would have been playing directly into Germany's hands. What naval experts call the "logistics" of the situation immediately ruled this idea out of consideration.

The simple fact is that we could not have supplied our dreadnaughts in European waters at that time. The German U-boats were making a particularly successful drive at tankers with the result that England had the utmost difficulty in supplying her fleet with fuel oil. It is impossible to exaggerate the seriousness of the oil situation at that time.

"Orders have just been given to use three-fifths speed, except in case of emergency," I reported to Washington on June 29, referring to the scarcity of oil. "This simply means that the enemy is winning the war." It was lucky for us that the Germans knew nothing about the scarcity of this indispensable fuel. Had they been aware of it, they would have taken pains to see that the grand fleet was constantly steaming at sea, and in this way they might so have exhausted its oil supplies as to possibly threaten the actual command of the surface. Fortunately for the cause of civilization, there were certain important facts that the German secret service did not learn.

But this oil shortness made it impossible that the American North Atlantic Fleet should move into European Waters, at least at that time. Since most oil supplies were brought from America, we could not have fueled our superdreadnaughts in Europe in the spring and summer of 1917. Moreover, had we sent all our big ships to England we should have been obliged to keep our destroyers constantly stationed with them ready for a great sea action; this would have completely fallen in with German plans, for then these destroyers could not have been used against her submarines.

This is Admiral Sims.

The British did, indeed, request that we send five coal-burning ships to reinforce her fleet and give her that preponderance which made its ascendancy utterly secure, and these ships were subsequently sent; but England could have made provision for our greatest dreadnaughts, the oil burners. In-
l, our big ships served the allied cause better stationed on this side than
would have served it had they been located at a European base. They
ided a reserve for the British fleet, precisely as our armies in France pro-
d a reserve for the allied armies; and meanwhile their destroyer escorts
d be sent to the submarine zone, to participate in the ant submarine cam-
n.

American waters these big ships could be kept in prime condition; here
had an open, free sea for training, and here they could also be used to
k in the thousands of new men needed for the new ships constructed during
war.

o that Admiral Sims advised us to keep the ships over here.

he CHAIRMAN. Did he not ask for battleships over on the other
?

ecretary DANIELS. He did later on.

ie CHAIRMAN. Not very much later on.

ecretary DANIELS. I do not remember when it was.

ie CHAIRMAN. At any rate, you would not have regarded it as
ative of an especially bold and aggressive policy, would you?

ecretary DANIELS. I would not regard that in itself as the bold
audacious policy to which I referred; but I would regard that
essential policy, along with the general broad policy of keeping
ships ready, as Admiral Sims says, for reserve in any emergency.

ie CHAIRMAN. Another reason given by Admiral Benson was that
ep them here for fear that Germany might send about six sub-
nes to attack our coast. Was that an especially bold and audaci-
olicy?

ecretary DANIELS. I do not recollect what he said.

ie CHAIRMAN. That is my recollection of the testimony.

retary DANIELS. But Admiral Sims said early in the war that
an submarines might come here. On the 13th of April, six days
we entered the war, we arranged with Admiral Browning that
an submarines might come over to attack Canada and America,
hat if they did come, we would send submarines to Halifax to
them.

CHAIRMAN. That does not especially indicate a bold and au-
s policy—that in itself?

retary DANIELS. I think the readiness to pledge and promise
ritish to send our ships to Halifax shows a certain readiness
illness to risk—

CHAIRMAN. I am talking now about keeping the fleet over here
inst those few submarines that might come.

etary DANIELS. I have given you the reason why the battle-
should stay here. I have given you the recommendation of
al Sims. In my previous testimony I told you that Lord
r, who was then the first lord of Great Britain, did not want
ps and the allied council stated we should keep the fleet here.
asons were very good.

CHAIRMAN. What I am trying to find out is just what specific
in regard to keeping the fleet over here constituted a bold and
us policy. The fleet would much rather have gone over, of

Secretary DANIELS. Why, of course; and they would have gone over early but for two reasons. One reason was the question of logistics, and the other reason was because battleships do not hunt submarines, and if we had sent the battleships over it would have required all the destroyers with the battleships. The British never permitted their destroyers to leave their battleships. We robbed our battleships of our destroyers so much that Admiral Mayo protested that we were sending too many, they being taken away from the fleet.

The CHAIRMAN. Now, Mr. Secretary, in your testimony as evidence of the desire of the department to enlist the thought and initiative of all officers in the service in bold methods an all-Navy telegram was sent under date of August 2, 1917. That was nearly four months after we entered the war. Why did you wait four months?

Secretary DANIELS. I was sending that to all officers. We did not wait four months. We conferred with all officers of rank and importance personally, but I could not reach all of them and so, later, we sent this all-Navy telegram so that it would go to ensigns, lieutenant commanders, commanders, and everybody. We, of course, had the views of the commanders in chief before.

The CHAIRMAN. Have you any specific record of letters written before that to anyone about bold methods?

Secretary DANIELS. Oh, there was not any time to write letters particularly, but there was discussion. For example, I sent for Admiral Winslow early in the war and I had several talks with him about what we should do to win the war—bold and audacious plans. I talked to officers, quite a number, and we discussed that with every officer that I saw of any standing from the time we entered the war and before—after it became certain—to get their advice. For instance, I will read you an extract from a letter from Admiral Winslow.

The CHAIRMAN. I asked you about letters that you had written to some officers.

Secretary DANIELS. Do you regard that I must write a letter or speak to an officer? Is there any difference?

The CHAIRMAN. I asked if you had any records of that.

Secretary DANIELS. I recall no letters, because I was just at that time discussing with all officers of any importance, personally. This all-Navy message was in addition to the personal request for suggestions and it was to go to officers I could not reach. Let me read you an extract from this letter from Admiral Winslow in response to my request to him for his views as to a bold and aggressive policy. This letter was written to me from Newport on August 17, 1917 [reading]:

Since my return from Washington I have thought a great deal of the conversation I had with you and of the subject of that conversation.

My recollection of what you said to me has left me with the impression that you believe that a more aggressive policy and larger military operations will be necessary to bring the U-boat menace under control or to destroy it altogether. I was very glad to find that you felt in this way, for I am of the opinion now, and have been for some time, that a policy which did not prevent the German submarines reaching the sea, but counted on capturing or destroying them after they were once clear of their bases, would not be sufficiently effective to prevent the German Nation being buoyed up by the hope that the U-boat would eventually win out against England.

but I think that the more complete and satisfactory solution will not be attained in this way. The British Navy has certainly failed thus far to stop the U-boat, and I believe that it is the business of our service to endeavor to solve the problem and not accept the verdict from the other side of the water which has from time to time appeared in the press that it is impossible to reach and destroy or control the bases of the submarines.

I was discussing with Admiral Winslow the necessity of some bold and audacious policy, not waiting for the submarines to come out in the sea, but to shut them up——

The CHAIRMAN. When was that?

Secretary DANIELS. I was talking with him in the summer. This was the 17th of August, 1917.

The CHAIRMAN. That is about the date I referred to.

Secretary DANIELS. Yes. He said further:

I do not doubt that conservative opinion in our Navy, like that of the British, will advise against attempting to secure such military control of the bases of the German submarines as will prevent their reaching the open sea. Nevertheless, it seems to me that it must be possible to develop a plan of major military operations, including operations under water and on the surface, on land and in the air, that will lead to success. The combined navies of England, France, and the United States largely outnumber in ships that of Germany..

Admiral Winslow used exactly the words used by the President in that speech of his. [Continuing reading:]

We can afford to take losses of ships and men if in the end we succeed, and we should make the attempt to destroy the German U-boat bases or control the exits therefrom if there is a reasonable chance of success.

The CHAIRMAN. I can not see what this has to do with my question.

Secretary DANIELS. Everything. You are discussing a bold and audacious policy.

The CHAIRMAN. I am asking you what you wrote yourself, and you are giving me letters from some one else.

Secretary DANIELS. Mr. Chairman, I do not see the difference between my sitting down and writing a letter to Admiral Winslow and my sending for him to come to Washington and talking to him. I think it was much better to ask him for his views. He was a bold and audacious man.

The CHAIRMAN. I asked you if you had any letters that you sent out.

Secretary DANIELS. I may have, but I am giving you the answer to a personal request which may be important, and I insist it is a very important thing as showing that I was trying to get the best opinions——

The CHAIRMAN. But here is page after page of statement on every question I ask you, and how are we ever going to get anywhere?

Secretary DANIELS. I will be through in one moment. [Continuing reading:]

The destruction of shipping by the U-boats may increase, increase to a considerable extent, and at the end of a year, if this happens, the situation will be much more serious and alarming, and the people of this country will want to know why our Navy has not taken a more aggressive attitude in dealing with the subject, just as many people in England are asking that question at the present time about the British Navy.

I do not venture to say now that the major military operations which I have just mentioned would be attended with success. Before expressing an opinion on the subject I would like to educate myself by closer examination of the field,

and discussion with those on the other side who are well informed as to what has been done and what it is proposed to do. Admiral Sims is the only officer in our Navy of high rank who has had an opportunity to thoroughly examine this subject, and doubtless he has formed his opinion, and such opinion is of great value, but it would seem to me desirable that the department should have the opinion of others and that they should be given the opportunity to examine the situation at close range.

I just added that as an illustration of the policy the department was pursuing, and I discussed it with officers without number.

The CHAIRMAN. Admiral Benson says he does not know when you decided that we would be drawn into war. Will you inform the committee? I take it that you had a great many talks with Admiral Benson.

Secretary DANIELS. Yes.

The CHAIRMAN. And were very close to him?

Secretary DANIELS. Yes; I talked with him every day. I told you yesterday that, of course, none of us were ever positively certain. We made large preparations after the sinking of the *Lusitania*. Of course, until we withdrew the papers from the German Ambassador, it could not be said that anybody was certain; and, of course, I could not act as to overt acts until Congress made the declaration of war. I could not say the date that I felt it. That is a matter that nobody could state.

The CHAIRMAN. I think very many people did take that ground about it.

Secretary DANIELS. The date?

The CHAIRMAN. I say, very many people did take the ground that we were going into war.

Secretary DANIELS. Before what date?

The CHAIRMAN. What is that?

Secretary DANIELS. You asked me about the date.

The CHAIRMAN. Very many people did, after the sinking of the *Lusitania*, and many people then first were convinced.

Secretary DANIELS. I do not think everybody was certain after the *Lusitania*. I think that the danger was greater.

The CHAIRMAN. A great many people made up their minds long before we did actually get into war, that we were going to war, did they not?

Secretary DANIELS. I think that opinion was entertained by a great many people; yes.

The CHAIRMAN. But there was a sufficient probability for it to warrant preparations being made in case war came, was there not?

Secretary DANIELS. Yes; and I told you yesterday, two days after the sinking of the *Lusitania* I wrote to the General Board to prepare plans for a tremendous increase in the Navy.

The CHAIRMAN. A number of the witnesses have made statements about what a neutral nation could do, in the nation, in overt acts, before war was declared. What do you have to say about that? I suppose you have read the testimony of the witnesses?

Secretary DANIELS. I have not read it all, Mr. Chairman, but of course the question of what an overt act is needs to be defined. When the German ambassador was given his papers, we began to arm the merchant ships, which I take it might be called an overt action. On March 24 the President, who had been authorized to increase the

sonnel in case of an emergency, issued an Executive order calling additional men. I had ordered, in February, all the navy yards closed to any visitors. I had instructed the navy yard people to be very active, earlier than that, in the work they had to do.

The CHAIRMAN. Do you think that a neutral nation was justified in preparing itself before war was actually declared.

Secretary DANIELS. Why, of course; and we did.

The CHAIRMAN. And do you think we were justified at any time on August 1, 1914, in making any preparation that we saw fit to make?

Secretary DANIELS. I think we are always justified in making any preparations we see fit to make for national defense; yes.

The CHAIRMAN. In a case like the present war, that would mean any preparation we saw fit to make?

Secretary DANIELS. It is our business to make such preparation as President authorizes us to make.

The CHAIRMAN. And there was nothing, in your opinion, that would have prevented us as a neutral nation from making any preparation that the occasion seemed to demand?

Secretary DANIELS. There was nothing, in my opinion, and we did not make a very large preparation for national defense. Of course we did not say, or did not say, "we are ordering these destroyers, and are doing this in order to fight a certain nation," until Congress authorized us to, but we were getting ready.

The CHAIRMAN. But we could have authorized the building of the destroyers at any time we saw fit, could we not?

Secretary DANIELS. Yes.

The CHAIRMAN. And we could have increased our personnel to any number we saw fit, could we not?

Secretary DANIELS. Yes; and we did. I recommended it in 1913.

The CHAIRMAN. And we could have done anything in the nature of the use of our Navy that we saw fit?

Secretary DANIELS. Anything in the way of strengthening our

The CHAIRMAN. Of what?

Secretary DANIELS. Strengthening our Navy.

The CHAIRMAN. That does not entirely agree with the testimony of a number of officers on the subject covered.

Secretary DANIELS. I take it there are a variety of opinions, of

The CHAIRMAN. I am more inclined to agree with you than what they say.

The CHAIRMAN. You say that Admiral Sims lacked vision to see that the great necessary project to bar the submarines from their hunting grounds should be carried out, no matter what the labor and burden, but that he did not regard it as practicable. Does that refer to the expense or to the blocking up of enemy ports?

Secretary DANIELS. It refers to any kind of bold or audacious policy or new policy. He recommended none.

The CHAIRMAN. If you and Admiral Benson believed in this bold audacious policy, why did you not insist on carrying it out in the early months of the war?

Secretary DANIELS. In the first place, on the 16th of April—I think it was the 16th—maybe the 13th, before the 16th—I think, a telegram to Admiral Sims stating that the opinion here was that we ought to pen up the submarines and keep them from getting into the open sea, and to take up with the British admiralty those projects: and you will find that on a later date he was instructed to take up with the admiralty the North Sea barrage. You will find in my testimony very fully, statements of my telegrams and my instructions. But, to be sure, we could not lay the North Sea barrage alone. It had to rest upon the English coast. It was in the North Sea, where their fleet was operating, and we could not act independently of the admiralty; but we instructed him to take it up with the admiralty, and the Bureau of Ordnance proposed it in April.

The CHAIRMAN. And it was not taken up until October; it was not adopted until October, I think.

Secretary DANIELS. If you will read my testimony, Mr. Chairman, you will see that we took up the barrage with Adimral Sims in April. We had a number of telegrams urging it, in the spring and summer. Admiral Sims opposed it; and finally, in the summer, we sent Admiral Mayo over to take it up with the British admiralty and to press it.

The CHAIRMAN. Was that the sole reason for Admiral Mayo going abroad?

Secretary DANIELS. No; not the sole reason.

The CHAIRMAN. I do not find anything in Adimral Mayo's testimony stating that was why he was sent abroad.

Secretary DANIELS. Not the sole reason; but that was one of the reasons.

The CHAIRMAN. Was he told that that was the reason, when he was sent over?

Secretary DANIELS. He was told to do that.

The CHAIRMAN. Told to inquire into the barrage question?

Secretary DANIELS. No; he was given a memorandum from the Bureau of Ordnance of all the things about it and was told to take it up with the British admiralty.

The CHAIRMAN. Was he not also told to explain to the British admiralty about the new mines?

Secretary DANIELS. He was given a memorandum for Ordnance.

The CHAIRMAN. The antenna mines?

Secretary DANIELS. Explaining all about it; telling all about it. But he was not told to take up with the British admiralty the antenna mines. He was told to take up with the British admiralty the question of the barrage. It was built with the old mines.

The CHAIRMAN. But until the coming of the antenna mines, the British did not approve of the barrage question, did they?

Secretary DANIELS. But I do not think that the antenna mines had anything to do with the British. They were opposed to this. They did not know anything about the antenna mines.

The CHAIRMAN. They knew that we were going to use it on the barrage, did they not?

Secretary DANIELS. We told them we would furnish as many mines as were necessary. It turned out, as a matter of fact, that we did furnish about 70 per cent or more of the mines. But all

The CHAIRMAN. Would it not have meant diverting for that purpose a large number of ships?

Secretary DANIELS. Not of ships—not destroyers or the ships that were fighting the submarine.

The CHAIRMAN. Was not Admiral Sims's ground for not going ahead with the barrage because he thought that all our attention and all of our efforts should be concentrated against the immediate submarine menace?

Secretary DANIELS. My testimony will show you that Admiral Sims did not believe that it was practicable. He said, "I have taken it up with the British Admiralty, and it is unfeasible." His argument, all his statements, was, "It is impracticable and unfeasible. Quit sending us new ideas. Let us follow the British practice."

The CHAIRMAN. Did Admiral Sims oppose the construction of the barrage at any time after the antenna mines were developed?

Secretary DANIELS. Then, mines were developed, in fact—

The CHAIRMAN. And it was brought to his attention that they were developed?

Secretary DANIELS. He never did advocate the North Sea barrage. He finally fell in with it after Mayo convinced the British Admiralty it was a good thing, but he never sent a telegram to the Navy Department saying his position about it was due to the mines. It was always due to the fact that it was unfeasible, impracticable, and the British had tried all the schemes, and it would not work.

The CHAIRMAN. As a matter of fact, Mr. Secretary, was the North Sea barrage ever finished?

Secretary DANIELS. The North Sea barrage was—finished? We carried it on to the islands on the coast of Norway, and they mined around that end of it.

Toward the British end I think they wanted to keep open a small passage for their ships to go through.

The CHAIRMAN. Were not our men working on the barrage clear up to the time of the armistice?

Secretary DANIELS. I am not certain exactly of the date.

The CHAIRMAN. And therefore there was an opening at all times in the barrage? It was never completed?

Secretary DANIELS. Oh, of course, if the British did not close it up, there always was a place there.

The CHAIRMAN. And the British had repeatedly tried to put a barrage across the English Channel, and had never been able to do so, had they?

Secretary DANIELS. Now, Mr. Chairman, about that there are two opinions. When we entered the war, the first proposition we made—and I think you will find it in one of my telegrams, was saying that we ought to have this North Sea barrage, and the British ought to close up the Dover Channel. The first officer who came back from Great Britain, I asked him why they had not closed the channel, why they had not put a barrage across there, and he said that the British said that the chalky bottom was such that they were unable to make it effective. Some of our officers believed that the reason they did not

do it was because they wished to keep it open for trade purposes. And we insisted all the time that it was essential to have it done, but they delayed about it. What their reason was I can not say. They had their own reasons. But we insisted all the time, from the first, that the closing of that channel was the most offensive thing—and the North Sea—against the submarine.

The CHAIRMAN. Whether or not it could have been done, it never was done, was it?

Secretary DANIELS. Perfectly? I do not think it was ever done perfectly. It ought to have been done long before.

The CHAIRMAN. I recall in the winter of 1916 crossing from Calais to Dover, and I remember that we had destroyer escorts zigzagging in front of us, which would indicate that they were in imminent danger of submarines at that time.

Secretary DANIELS. That was a matter with the British. We urged it and insisted upon it. I do not think they ever did close it. I was talking the other day with one of our most distinguished officers, who said the reason they did not close it was that it was a matter of great importance to have the trade pass through it, and that was why they did not close it. But, of course, it is a matter of opinion. As a matter of fact, we urged it from the beginning.

The CHAIRMAN. Admiral Mayo, on page 1478 and page 1534 of the typewritten record, gives the purpose of his going abroad on the two trips that he made.

Secretary DANIELS. I didn't hear you, Mr. Chairman.

The CHAIRMAN. I say that Admiral Mayo, on pages 1478 and 1534 of the typewritten record, gives the purpose of the two trips that he made abroad in the summer of 1917. The first one was for the purpose of observing conditions and operations in European waters and of inspecting the activities of that portion of the Atlantic Fleet, and the second one was an inspection of the forces of the Atlantic Fleet in European waters and observation of conditions and operations.

Secretary DANIELS. He was commander in chief of the fleet on this side of the Atlantic as well as the other side of the Atlantic.

The CHAIRMAN. And as such he naturally would want to go over there?

Secretary DANIELS. And very naturally, when he was over there, as commander in chief, he was instructed by Operations and given a memorandum by Ordnance to take up this North Sea barrage.

The CHAIRMAN. Now, you say you could not have gone on with the North Sea barrage without the consent of the British? Do you not think they would have allowed you to go ahead if you had wanted to?

Secretary DANIELS. As a matter of fact, Admiral Beatty never did want us to. Admiral Strauss testified here that he could have built the barrage in half the time it took if he had had the control of the matter himself, but that getting orders from Admiral Beatty delayed him so long; and if you will look into the matter, I think you will find that Admiral Beatty wanted the North Sea open for his fleet and never did believe in the barrage, and the British Admiralty were very slow about it.

The CHAIRMAN. But why could you not have gone ahead? They would have allowed you to go ahead with it if you had wanted to?

should go where it would not interfere with we could not have put a barrage across least the British assent, and the bases. A thing on Great Britain.

The CHAIRMAN. Do you not think that British that America would have done this with our own forces; they would have all

Secretary DANIELS. We put it up all the put it up, to build it, to go in with them build it; we can not get the mines." And will furnish the mines." They were very even at the end, Mr. Chairman, even at the time this, that when he would take it up with to him rather indulgently, as if they must not, but they did not take any interest and they felt—he said they said, "Well, be humored. It must be treated with caution, much of it." That was their attitude, and it without their assent and without their North Sea we could use without going to

The CHAIRMAN. As a matter of fact, while work, constructing the barrage, and while proud of it, did it actually have very much the submarine menace, in your opinion?

Secretary DANIELS. It destroyed 8 per cent destroyed during the war.

The CHAIRMAN. It destroyed what?

Secretary DANIELS. Eight per cent. It was laid down to take toll. It was the most offensive naval operation of the war.

The CHAIRMAN. When did it probably destroy submarines?

Secretary DANIELS. It had hardly been said, in June—I would not give the month within a month after they began to lay it

The CHAIRMAN. He said there was one was caught?

Secretary DANIELS. One at once. But nothing about the North Sea barrage, the great that it kept the submarines from coming had on the German morale. Just as long could leave their base and go easily out sailors were willing to take the chance. a destroyer if a destroyer was after the numerous as we would have liked to have said we ought to have had 25,000. It would if we had. But when they found that the thing under the water, that was different. here was a destroyer after them, and they had a better chance, because while the d

and while the depth charges which were introduced were very effective and very good, the submarine could submerge, and the sailors had what you would call a sporting chance. But after the barrage in the North Sea was made they went into a maw, and they knew if they went in there they would be clutched and destroyed, and some of them got in and got hurt and went back and carried the news back to Germany, and the first break of German forces, seriously, in morale, was in the German Navy. We were all astounded one day to hear that the German Navy had had some revolt. It was a surprising thing. The effect on the German undersea fleet, I think, was to greatly weaken their morale.

The CHAIRMAN. After the 20th of June, when this submarine was caught in the barrage, even by that time the curve of shipping that was being built had gotten past the curve of sinking by submarines, and the submarine situation was practically under control, was it not?

Secretary DANIELS. Oh, no; the submarine situation was never under control.

The CHAIRMAN. When the curve of building crossed the curve of destruction, it was evident that the submarine menace could not succeed?

Secretary DANIELS. Yes; but the barrage came along, and that was very pronounced.

The CHAIRMAN. Yes; but the curve of building—of construction—was increasing all the time then?

Secretary DANIELS. The submarine was never curbed by destroyers—

The CHAIRMAN. That is extraordinary.

Secretary DANIELS (continuing). Until the barrage destroyed the morale and began to take toll of them.

The CHAIRMAN. But that is merely conjecture about destroying morale. I think Admiral Strauss stated there were only 10 accredited to the barrage, and they only found 3.

Secretary DANIELS. The British only credited us with sinking two submarines with all our efforts, and besides the barrage.

The CHAIRMAN. That may be.

Secretary DANIELS. But the barrage closed the door and slammed it in their face.

The CHAIRMAN. It did not close the door. It was never closed. It was like a fence around a field.

Secretary DANIELS. It was closed, except a narrow place which the British kept open, and which, of course, they patrolled.

The CHAIRMAN. I do not think that the testimony has shown that it was ever an effective barrage.

Secretary DANIELS. What is that?

The CHAIRMAN. I do not think the testimony has ever shown that it was an effective barrage—an absolutely effective barrage.

Secretary DANIELS. If you will read Admiral Sims's book you will find he says so.

The CHAIRMAN. Will you show me where?

Secretary DANIELS. Yes; Admiral Sims says that the barrage had an important effect in injuring the morale of the German Navy.

marine menace was practically under control, was it not?

Secretary DANIELS. It was not. It destroyed 7 per cent of all the submarines that were destroyed during the war, so it is said.

The CHAIRMAN. That was during the latter part of the war, when they were pretty well under control?

Secretary DANIELS. They were never under control. Let me tell you something, Mr. Chairman—

The CHAIRMAN. They were never absolutely under control, of course.

Secretary DANIELS. Let us see whether they were under control or not. On the last of September—the 1st day of October, 1918—Sir Eric Geddes and Admiral Duff and a large mission of British naval officers came to Washington. We had quite a lengthy conference at my house one night, attended by the leading admirals of our Navy, and the British Navy, and Sir Eric Geddes stated to us, and Admiral Duff—and that was October, 1918—they said, “We have before us now the most serious time of all. The submarines are going to destroy more shipping in the next year than they have destroyed any year in the war.” That was the opinion of the Secretary of the Navy of Great Britain, the first lord of the Admiralty. I have placed it in my hearings. That was October 1, 1918. He did not suppose then that the submarines were under control. He came over here for that purpose. He was very earnest about it, and so earnest—I will give you a little inside history. He prepared a statement for the press in which he made that statement, and said that the next year was going to be the worst year of the war. This was October 1, 1918.

The CHAIRMAN. Who made that statement?

Secretary DANIELS. Sir Eric Geddes. It is in the hearing. And Sir Eric Geddes said, “We must get ready for the greatest fight we have had. We must have more destroyers than we have ever had.”

The CHAIRMAN. That referred largely to the fleet, did it not?

Secretary DANIELS. No, sir; not at all.

The CHAIRMAN. To another fight that they expected to have?

Secretary DANIELS. No, sir; he referred to the submarines, and he said, “We must get ready; and the war is going on.” He said, “It can not end in a year.” He sent me down his statement before he published it.

The CHAIRMAN. That was in October, 1918?

Secretary DANIELS. October, 1918.

The CHAIRMAN. By which time the losses due to submarines had gotten away down to the lowest point reached, had they not?

Secretary DANIELS. Yes; but Sir Eric Geddes said that it was going up to a higher point still.

The CHAIRMAN. This was his opinion?

Secretary DANIELS. That was his opinion.

The CHAIRMAN. In spite of the barrage?

Secretary DANIELS. Because the Dover Channel had never been closed, and Sir Eric Geddes was never a believer in the barrage.

The CHAIRMAN. Even though you say it was working in perfect shape?

Secretary DANIELS. I did not say in perfect shape.

The CHAIRMAN. Well, in very effective shape. You said it put down the submarines.

Secretary DANIELS. I said it was the most effective agency in that. I never said any one thing on sea or land ended this war. I have never said any one thing was the controlling thing; but I have said that the barrage was the outstanding, chief thing that ended the submarine menace. Now, Sir Eric Geddes prepared that statement.

The CHAIRMAN. He did not agree with you, did he?

Secretary DANIELS. What?

The CHAIRMAN. Sir Eric Geddes did not agree with you about the barrage having ended the submarine menace?

Secretary DANIELS. Here is what he said. This is on page 4929 of your typewritten record:

Sir Eric Geddes, first lord of the Admiralty, said: "I do not understand from the remarks of the first sea lord (Admiral Jellicoe) that the barrage should take the place of other offensive measures. It is not considered that the barrage can be sufficiently relied upon," etc.

He still felt that the danger from the submarine was very serious; and the break in German morale had not come so much as it did in October.

The CHAIRMAN. If Admiral Sims failed in vision and aggressiveness, why did you recommend him for permanent admiral, and not recommend Admiral Mayo, whom you now praise so highly—and quite rightly. He is a splendid officer.

Secretary DANIELS. For this reason. I have answered it several times. I have said it in my direct testimony. Admiral Benson was the head of the Bureau of Operations in Washington. Admiral Sims was the ranking officer abroad. And I have never said that Admiral Sims lacked ability or that he was not animated by a great desire to win; and I said in my hearings before the House committee that in giving this honor to Admiral Benson and Admiral Sims, it was not so much to them personally, but to the fact that each one of them occupied a position, Benson the head man here in Washington and Sims the head man in London, and it was a recognition of the entire Navy. And I wrote a letter to Chairman Padgett, of the Naval Affairs Committee, telling him that the only reason I did not recommend Admiral Mayo was because I did not feel that Congress would give us three admirals; that he was entirely entitled to it, and that he ought to have it, but that I felt that two were all that Congress would give, and I had recommended Benson and Sims because one in this country, in Washington, and the other in London, they were the men who had been intrusted with certain responsibilities in the public eye.

The CHAIRMAN. Mr. Secretary, I will put in the record at this point what you stated about Admiral Sims in your report for 1919.

Secretary DANIELS. As I stated in my hearing, Mr. Chairman—

The CHAIRMAN. It has all gone in, but I will simply repeat it and have it put in this record here.

Secretary DANIELS. Yes, Mr. Chairman. My feeling was when the war was over that the Navy had done a great job, and that

pressed them and recommended them highly.

The CHAIRMAN. I will also put in your letter of July 22, 1919, to Hon. Thomas F. Butler, chairman of the Naval Affairs Committee of the House, and the memorandum introduced by Senator McCormick. There is no need of reading them now. They were introduced at pages 551, 552, and 554 of the hearings on "Awarding of medals in the naval service."

Secretary DANIELS. They show that in spite of the fact that there were some things Admiral Sims desired to be done that I did not approve, and the fact that he lacked vision in the matter of the barrage, I recognized his ability, and I therefore wrote that letter.

The CHAIRMAN. They do show that he lacked vision?

Secretary DANIELS. The letter did not say that; no. I said that, though some of the things he did abroad I did not approve—

The CHAIRMAN. But there is nothing in those letters to show that you did not approve.

Secretary DANIELS. No; I was going on to say that in spite of that fact I was very generous in my commendation of him; and I desired this recognition of the two officers who incarnated, you may say, the work here in Operations, and the work in the London office, of the man at the head of it.

(The documents referred to by the chairman are here printed in the record, as follows:)

[Extract from Annual Report of the Secretary of the Navy for 1919.]

ADMIRAL SIMS'S DISTINGUISHED SERVICE.

In the allied naval council, Admiral William S. Sims, who had been the able representative of the Navy in Europe during the entire war, displayed ability of the highest order. His brilliant services abroad won world-wide admiration, and he demonstrated that he is worthy of the highest honors Congress can confer upon him. Admiral Hugh Rodman, who had commanded the dreadnaughts in the North Sea, represented our country in receiving the surrender of the German Fleet, and was justly honored and decorated by allied nations. In March, 1919, after receiving desired and distinguished honors and many expressions of the esteem in which he is held, Admiral Sims set sail for home to become the president of the War College, where he has already set a new and higher standard which will insure an enthusiasm and zeal and knowledge on the part of the naval officers privileged to attend the war college, which will be reflected in a more efficient Navy of the future. He was succeeded in command of the United States naval forces in European waters by Rear Admiral Harry S. Knapp, one of the ablest and wisest of naval officers, who also, upon the return of Admiral Benson to this country, became our naval advisor to the peace conference at Paris.

In the anxious days before duty led the United States to enter the World War, when it was decided to arm merchant ships, the President determined to send to Great Britain a naval officer of high rank and approved ability to represent our country. He selected for what was then a delicate mission, as it was all during the succeeding months, an assignment that called for a man of quickness of grasp, mastery of his profession, and ability to sit as the equal in any conference of the naval leaders of the free nations. The country approved the selection of Rear Admiral William Snowden Sims. He had already shown the qualities which made his mission not only of the greatest service to his own country, but which brought allied navies into warm fellowship as well as in close cooperation. He was at once welcomed into the conferences of naval leaders, and during the whole war was recognized among our Allies,

as well as by his own countrymen, as one of the ablest and most brilliant naval officers in the cause that demanded initiative, understanding, and a comprehension which included among others the hard duty to safeguard the carrying of millions of fighting men across the seas and to defeat the submarine menace.

It is a matter for national gratification that in Rear Admiral Sims America sent as commander of the United States Naval Forces Operating in European Waters an officer who served the world with such conspicuous ability as to win the confidence, the approval, and also the sincere admiration of the whole world. He has been given the highest honors by foreign countries which appreciated his rare accomplishments. He was promoted during the war because of his high merit successively to vice admiral and admiral, and it is just that this highest rank shall be conferred upon him by his countrymen and that it shall be a decoration of life of which his children may be proud.

WASHINGTON, July 22, 1919.

MY DEAR MR. CHAIRMAN: I am in receipt of your favor of July 19, requesting the department's recommendation on H. R. 7551. The promotion of Admiral William S. Benson and Rear Admiral William S. Sims to be permanent admirals of the Navy meets with my cordial and hearty approval and is in accordance with the message which the President sent to Congress on Friday, July 18.

If the Navy of the United States in the Great War has deserved well of the country and if it merits the tributes paid to it at home and by allied nations, its possession of world pride and world confidence is due to its demonstrated fitness, readiness, and resourcefulness in the days of testing. The congressional declaration, "All is well with the Navy," issued after thorough investigation in critical days, was made possible only by the perfect teamwork of the entire Navy personnel, embracing the zeal and quickness of the youngest recruit as well as of the wisest and most capable admiral. What measure of gratitude the Congress, as representative of the whole people, may choose to pay to the Navy must go to more than half a million men who, in the peril and hazard of war, sought the place of danger and never failed or hesitated in the face of death. But neither Congress nor the country can render deserved honors to all the brave men, every one of whom will be awarded a medal in recognition of their valor. Their leaders, young and old, were worthy of them. Congress has authorized honors to be bestowed upon those privileged to perform deeds of special distinction. The impossibility of fitting recognition of all who are worthy embarrasses the department and Congress. So many officers and so many men have shown themselves worthy of the highest honors of their country that full recognition must be confined to the men, who, assigned to the most important positions during the war, illustrated the best traditions of the noble service which they and their shipmates of every rank and grade adorn.

Long before the war began Congress created a new position of leadership in the Navy Department known as Chief of Naval Operations. To that place of responsibility the President called William Shepherd Benson, then a captain in the Navy. In every previous assignment to duty he had demonstrated ability and capacity and soon the country felt that in the new Chief of Operations it possessed a man who would measure up to the highest requirements in preparation for war or in the wise professional direction of war. The naval service already knew his fine qualities, had confidence in his sound judgment, and in his sense of justice. Soon the public learned what the President knew when the selection was made, to wit, that Capt. Benson had a rare quality of statesmanship, as well as knowledge of his profession, and possessed ability to visualize naval needs and to carry out well-matured naval policies. From the day he came to Washington he sensed the national duty and need for naval preparation. When war came it found the Navy ready with all its units for the service required of it. Shortly after our entrance into the war, after study and conference, Admiral Benson was selected to go abroad to confer with our associates, and he laid before the admiralities the views of his country and co-operated with them in the joint naval policies which more than justified their adoption. When the American peace mission assembled in Paris Admiral Benson was selected as the naval adviser of the mission, and served his country in that quasi diplomatic post with the devotion to his country and sound discretion which had attended his whole career. Allied nations have conferred their highest honors upon him, and his own country, I am sure, will honor itself by giving him the highest rank that can come to a naval officer.

In the anxious days before duty led the United States to enter the World War, when it was decided to arm merchant ships, the President determined to send to Great Britain a naval officer of high rank and approved ability to represent our country. He selected for what was then a delicate mission, as was all during the succeeding months, an assignment that called for a man of quickness of grasp, mastery of his profession, and ability to sit as the equal at any conference of the naval leaders of the free nations. The country approved the selection of Rear Admiral William Snowden Sims. He had already shown the qualities which made his mission not only of the greatest service to his own country but which brought allied navies into war fellowship as well as in close operation. He was at once welcomed into the conferences of naval leaders and during the whole war was recognized among our Allies as well as by his own country as one of the ablest and most brilliant officers in the cause that demanded initiative, understanding, and a comprehension which included among others the hard duty to safeguard the carrying of millions of fighting men across the seas and to defeat the submarine menace. It is a matter for national gratification that in Rear Admiral Sims America sent as commander of the United States naval forces operating in European waters an officer who served the world with such conspicuous ability as to win the confidence, the approval, and also the sincere admiration of the whole world. He has been given the highest honors of foreign countries which appreciated his rare accomplishments. He was promoted during the war because of his high merit successively to vice admiral and admiral, and it is just that this highest rank shall be conferred upon him by his countrymen, and that it shall be a decoration for life of which his children may be proud.

The honors which the President proposed for these distinguished officers is not only a recognition of their large contribution to the winning of the war, but these promotions will be regarded by the whole Navy as being conferred because these officers incarnate the courage, the skill, and deathless service rendered in the grim days of war by all Navy officers and by all Navy men who gave themselves fully to the victory which blesses mankind to-day.

I venture to suggest that the bill be amended by adding after "permanent admiral," in line 6, "with the pay of active admiral during their lives," and striking out the words "and they shall not be placed upon the retired list except upon their own application," and in lieu thereof there be substituted "the President is authorized, in his discretion, upon or after their retirement, to assign them to active duty." The policy of placing any officer permanently on the active list is one which is open to grave objection. These officers should, upon reaching the age of retirement, be placed on the same footing as all other officers, and their continuance upon active duty should be determined by the commander in chief of the Navy, who may well be empowered, in his discretion, to assign them to active duty after retirement. These changes are made the bill would read as follows:

ILL. To appoint Rear Admiral William S. Benson, United States Navy, and Rear Admiral William S. Sims, United States Navy, as permanent admirals in the Navy.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President is hereby authorized to appoint, by and with the advice and consent of the Senate, Admiral William S. Benson, United States Navy, and Rear Admiral William S. Sims, United States Navy, permanent admirals with the pay of active admiral during their lives, and the President is authorized, in his discretion, upon or after their retirement, to assign them to active duty, and whenever such offices shall be ended by death or otherwise the offices shall cease to exist."

With these minor changes, I earnestly recommend the passage of H. R. 7551, introduced in the House on July 18 by Chairman Butler.

I am appending hereto a brief summary of the naval service of both these naval officers.

Sincerely, yours,

JOSEPHUS DANIELS,
Secretary of the Navy.

W. THOMAS S. BUTLER,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

MEMORANDUM—ADMIRAL SIMS'S DUTIES.

Admiral Sims's duties at the beginning of the war were those of United States naval representative at the British Admiralty, from which point the policy and operations of the allied navies were directed. As United States naval vessels were ordered abroad from time to time, Admiral Sims was ordered to command all vessels, and later ordered to command the United States naval forces operating in European waters. On November 20, 1917, he was given additional duty as naval attaché at London. Admiral Sims was personally responsible for the degree and character of cooperation which was effected in the employment of the United States Navy in European waters. This cooperation may be considered as the principal accomplishment abroad to be credited to the Navy during the war. The forces of the United States Navy in the summer of 1917 entered a naval campaign which was approaching its fourth year of progress and in which practically every form of naval activity existed.

In order to throw in the force of our service to the fullest extent required exceptional tact, and in many cases it required abandonment of methods to which our service was accustomed to—methods which we knew to be less efficient but which were necessary to the combined campaign. Admiral Sims's policy, which was adhered to with a clear mind throughout, was that his mission could be accomplished only by treating the United States naval force in the rôle of reserves being brought to the front, and there is ample evidence that the example set by the coordination thus worked out had a marked effect upon the efficiency and progress of the campaign.

Upon the signing of the armistice, Admiral Sims had under his command approximately 81,000 officers and men and 373 naval vessels. A brief résumé of some of the accomplishments of the forces under his command follows:

(1) Escorted 62 per cent, or about 1,250,000 troops of the United States, without loss from enemy action.

(2) Escorted 27,000 of all United States, allied, and neutral shipping, carrying cargoes to France, England, and Italy during the period from April 6, 1917, to November 9, 1918.

(3) Laid 80 per cent of the northern mine barrage from Orkney Islands to Norway.

(4) Maintained all vessels under his command self-supporting in all respects, except in cases of serious accident and docking.

(5) Initiated tactics of "barrage system" in use of depth charges.

(6) Established, manned and operated 9 shore bases to support cruising vessels and 34 aviation bases in England, Ireland, France, and Italy from which aircraft bombed enemy submarine bases and patrolled at sea protecting convoys from submarines.

(7) Advised and assisted Mr. Hoover in operating food ships throughout Europe; established naval organization in every part of Europe where United States merchant vessels called. This was necessitated because all peace-time port facilities were so thoroughly disorganized.

(8) Operated fleet of 67 ships, manned by the Navy, carrying coal from Cardiff to France for the Army.

(9) Operated 120 submarine chasers in offensive warfare against the submarines, maintaining five special and three auxiliary bases to support these vessels.

(10) Based and operated a flotilla of seven submarines from the base in Ireland and five submarines from the base in the Azores.

(11) Reinforced the British Grand Fleet with five United States battleships.

(12) Operated a division of United States dreadnaughts, based on the west coast of Ireland, held in constant readiness to oppose threats on convoys by enemy battle cruisers or battleships.

Admiral Benson retires September 25, 1919.

Admiral Sims retires October 15, 1922.

Act of May 22, 1917, fixes pay of fleet admirals at \$10,000 per annum, and fleet vice admirals at \$9,000 per annum, and their allowances were made to correspond with those of general and lieutenant general in the Army, responsibility, in act of July 1, 1918.

Act of August 29, 1916, provided that the "Chief of Naval Operations shall have the rank and title of admiral, to take rank next after the admiral of the Navy, and shall, while so serving as Chief of Naval Operations, receive the pay of \$10,000 per annum and no allowances."

Act of July 1, 1918, provides that "the Chief of Naval Operations shall receive the allowances which are now or may hereby be prescribed by or in pursuance of law for the grade of general in the Army."

Naval act of May 13, 1908: "Hereafter all commissioned officers of the active t of the Navy shall receive the same pay and allowances according to rank d length of service, and the annual pay of each grade shall be as follows: r admiral, \$13,500 * * *."

Admiral Sims ordered abroad, confidential duty, March 28, 1917.

Ordered to command all destroyers operating with British April 28, 1917, including tenders, supply vessels, and all auxiliaries.

Made vice admiral from May 25, 1917.

Ordered "commander United States naval forces operating in European ters" June 14, 1917 (change of title).

Additional duty as naval attaché November 20, 1917.

Made admiral November 27, 1918.

Detached March 31, 1919.

The records of the department show that Rear Admiral William Snowden is, United States Navy, was born in Port Hope, Ontario, Canada, October 1858; on June 24, 1876 was appointed a cadet midshipman, Naval Academy, n the eighteenth congressional district, State of Pennsylvania, by the Hon. S. Stenger; completed the four-year course of instruction at the academy e 10, 1880, finally graduating June 22, 1882; on June 22, 1882, promoted to shipman; promoted to ensign (junior grade) March 3, 1883, which rank is obsolete; promoted to ensign June 26, 1884; and subsequently promoted follows: Lieutenant (junior grade), May 9, 1893; lieutenant, January 1, 1894; lieutenant commander, November 21, 1902; commander, July 1, 1907; ain, March 4, 1911; rear admiral, August 29, 1916.

uring his career as a naval officer he served on naval vessels, among others, follows: U. S. S. *Kentucky*, *Monterey*, *Brooklyn* (aid on staff to commander hief of Asiatic station, and later as fleet intelligence officer and inspector arget practice, Asiatic station); U. S. S. *Minnesota*, commanding officer 1909 to 1911; commander of torpedo flotilla, on U. S. S. *Dixie*, 1918 to ; U. S. S. *Nevada*, commanding officer.

e was naval attaché at Paris, France, St. Petersburg, Russia, and Madrid, n. from September, 1896, until April, 1900; aid of Admiral Dewey on U. S. S. *Dolphin*; president of Naval War College from January, 1917, until l, 1917, on which date he assumed command of all American destroyers, ers, and auxiliaries operating from British bases. with flagship on the U. S. S. *Wadsworth*, and later on the U. S. S. *Melville*. In accordance with the of Congress approved May 22, 1917, he was designated as commander of United States destroyers operating from British bases, and authorized to ne the rank and hoist the flag of a vice admiral in the Navy; on June of year his title was changed to commander, United States naval forces ting in European waters, with additional duty as naval attaché in Lon-England. He was designed in November, 1918, as full admiral in the Navy ive from December, 1918, and served as commander of United States forces operating in European waters throughout the Great War, and and including March, 1919, when he returned to the United States and ed duty as president of the Naval War College at Newport, R. I., at time he reverted to his former lineal rank in the Navy as rear admiral.

WASHINGTON, May 22, 1920.

DEAR SENATOR: In my hearings before the subcommittee on last Tues-May 18, I read a speech I made before the Anglo-American Society on , 1919. I thought that when I read it it was my entire speech, but I at in copying it the copyist accidentally omitted a portion of the speech. therefore, sending you the entire speech, and request that it be substituted er that the permanent record may show what I did say in London.

Very truly, yours,

JOSEPHUS DANIELS.

FREDERICK HALE,

Chairman Subcommittee of Senate Naval Affairs Committee,

Washington, D. C.

Press delivered by Secretary Daniels at a luncheon given in his by the Anglo-American Society and the Sulgrave Institute in n, Thursday, May 1, 1919:

I believe, more than a coincidence that this meeting of the Anglo-Amer-ciety which the American Secretary of the Navy and distinguished naval

officers are privileged to attend, is held on the anniversary of the day that commemorates a notable American naval victory. On May 1, 1898, Commodore George Dewey, afterwards made the Admiral of the Navy of the United States, in the early morning passed the torpedoes and obstructions in Manila Bay and won the battle which gave new prestige to the Navy of our country and added a new luminary in the firmament of fixed naval stars. Upon every ship flying the Stars and Stripes to-day there will be fitting recognition of this anniversary, a day which shines in our calendar. We in America can never forget the spirit shown by the brave Admiral Chichester, of the British Navy, in the days which followed Dewey's victory, and that memory stirs our grateful appreciation particularly to-day. It was typical of the friendly relations that have long existed between the two navies. It was prophetic also of the closer cooperation which has been the crowning glory of British and American participation in the great war in which the fleets of those two mighty commonwealths were so united as for the time being to compose virtually one fleet. We never think of Dewey's delicate and difficult task, after the signal victory, 21 years after, as we celebrate its having attained its majority, without deep and abiding love for the British Navy and the British people because of the wisdom, consideration, and friendship displayed by your admiral at Manila.

It is good on this day to recall, with American gratitude, and I doubt not with British pleasure, the outcome of the veiled threat of the German admiral to contest the fruits of Dewey's victory in the Philippines. Admiral Dewey, out of that appreciation which every naval officer has for his responsibility to avoid trouble between his own and another country with which his Nation was at peace, withheld from his memoirs the full story of the tension almost at the breaking point caused by Admiral von Diederichs in those crucial days. We know enough of the circumstances, however, to understand the narrow escape from hostilities between the Navy of the United States and the Navy of Germany, and we have sufficient information to cause us always to be deeply sensible of the important and helpful part the British admiral played in those anxious hours.

"What would you do," asked the German Admiral, "if I moved my ship over to the *Olympia* (Dewey's flagship)?"

It required just two words for an answer that we are happy to recall to-day. "Ask Dewey," was Admiral Chichester's delphic to the uninitiated, and illuminating in the light of history, answer which was so well understood by the German admiral that he never moved his ship over to the *Olympia*. The crisis was averted, and to the day of his death Admiral Dewey held in grateful and fresh remembrance the action of the distinguished commander of the British naval forces in the Far East.

"Match the Navy." This was the keynote of the appeal of the Secretary of the Treasury of the United States during the third Liberty loan when, to make ready and effective war upon the submarines, the Navy personnel made such large subscriptions to the third issue as to have their action held up for the emulation of the whole country. The people of Great Britain, particularly the members of the British Navy, who were closely associated with them during the silent watches of the cruel war, can best know whether the United States Navy was worthy of the honor done it by selecting its achievements for national efficiency and national liberty as the high-water mark of attainment.

It was our pleasure and we gladly embraced the opportunity shortly after the United States entered the war to send over a portion of our fleet to be associated with your British Grand Fleet. Our fleet and yours acted together to lay mines in the North Sea, to convoy ships bringing troops, to fight the stilettoes of the seas in all zones of danger, and in every naval activity courage and skill were united. We kept all other ships of our Navy ready for sailing orders when the Allies felt a larger naval force might be needed, for from the day the United States entered the war there was no thought but readiness for the fullest and quickest cooperation and use of all our sea power where joint naval statesmanship felt it could be best employed. It was a gratification to us at home to know that British experts regarded our fleet in home waters, well disciplined and ready to come over at a moment's notice, as an invaluable reserve, as indeed we always deemed it. Our fleet at home was kept busy in the invaluable work of training recruits, and especially in training armed crews for merchant ships. It was tedious and, in a sense, work that brought no glory to officers and men. It was well done, while our British brothers of the Grand Fleet waited in enforced inaction for the Germans and suffered a

the essential power and use of those portions of our fleets now in the most infested areas but removed from the areas where we expected—nay, where we hoped—the decisive great naval engagement would give striking proof of the incomparable power of the allied fleets. In America we hoped that hour for which all other hours were but preparation. Here your naval fighters, as ours, were kept for the day when in fair combat in the open sea the opposing forces might in battle give the seal and eternal proof that the sea power of our countries would win as notable a victory as Nelson's or Dewey's. That this opportunity was not given, because the Germans knew the fate in store if they dared win or lose all by the sea fight, it must be confessed took away some of the anticipated satisfaction of the men of our Navies. But we should remember that the victory was all the more complete, though lacking the glory of a titanic conflict and denying the human satisfaction of demonstrating that the men of the British and American Navy of to-day are of the same stuff as in the days when neither wind or rain nor guns nor any other power could withstand their naval supremacy. It was the most humiliating spectacle in the annals of naval history—was the tame surrender of the much vaunted fleet that was organized with the boasted purpose to conquer the seas as the Prussian troops were to dominate the land. In truth that inglorious limping spectacle of defeat and disaster had a greater significance of complete undoing in the doing in the eyes of the world to-day and in history than could have come from a magnificent victory in a sea duel. It was not thrilling or spectacular. It did not stir the blood—the thing Navy men had made ready for and coveted as their heart's desire. But it did more: wrote on sea and sky the imperishable doom, "Thou art weighed in the balance and found wanting," and carried the same lasting message as when those fateful words were interpreted by the prophet of old.

May we not, borrowing the words used by our Secretary of the Treasury of our American naval fighters, give it the larger meaning and employing it to embrace your own and our own Navy's sentiment, say to the civilian peoples of both countries and of all free nations "Match the Navy"? I speak not now of daring service or of liberality or of that initiative and skill which the world applauds. To Americans and to British people, in the vast expanse of both countries, the call is, "Match the Navy" of your country in mutual appreciation, in clear understanding, in full fellowship, and in that loving brotherhood and helpful comradeship which will forever unite the two countries in championship and sacrifice for democracy, liberty, and fraternity.

Why match the Navy? The most beautiful fruit of cooperative effort and sincere friendship the war has ripened for us is the spirit which characterizes the intercourse of our men of the sea. They were privileged to know each other to the core, to plan together, and to test each other's knowledge of strategy and tactics and weapons of war, to go down together to the sea in ships, unfraid when the perils of the deep called only for men of the best mettle. Together they undertook the most gigantic task known to navies, the barrage of the North Sea, where a mistake or lack of skill meant instant death, and where the hardships were too great for any except the stoutest hearts and strongest bodies. They, and their equally brave Allies hunted the submarine in his jungle in the trackless sea, and together conquered the most insidious and most evasive and most murderous foe, which, without humane instinct, lay in wait for ships bearing noncombatants, sending ruthlessly to watery graves women and children in defiance of every law of the sea except the common law of the days of piracy. They transported millions of soldiers with a safety that seems almost miraculous. We can never forget that British ships brought over a million American soldiers from our shores, and the only limit of this invaluable contribution by the British was the limit of your large facilities. It was a service of such emergency and of such capital importance that American appreciation is beyond any expression of appreciation in words.

The naval force of our countries were instant wherever protection was needed as well as wherever the foe dared challenge their supremacy. The Navy of my country and yours during those years—we called them fateful then, but history will call them glorious—worked together as a unified organization and came to feel as truly one as if separate flags did not fly above their ships. The flags, it is true, were different, but they symbolized the same consecration to

world liberty and the same high resolve to again demonstrate that sea power is in the last analysis the determining force of the world. But better than that, or rather because of their mutual hardships and comradeship in love and sacrifice, the men of both navies, seeing eye to eye, came to regard each other as fellow crusaders. Ties of personal and national friendship were forged which can never be weakened, ties which are the best and surest guaranty of furnishing its large share of whatever mobile police the world's peace may require. What size this police force may be must be determined by the evolution of the League of Nations, happily, unanimously approved by the delegates from all the allied nations in the peace conference. It must be as powerful as world safety requires and in the development of the workings of the League of Nations must be reduced with all other armaments consistent with its declarations. The members of the league recognize that the maintenance of peace requires the reduction of national armaments to the lowest point consistent with national safety and the enforcement by common action of international obligations. Of one thing there must be no doubt; the end of competitive navy building has arrived. It would be a blunder, a calamity, equal to a crime if Great Britain and the United States should enter upon competitive naval building, either or both suspicious of the other.

As the common dangers and common experience of men in these two greatest navies brought to the men in each a better appreciation of the fact that their united strength was the most powerful agency to end the dreams of conquest by autocracy, so the continued cooperation in peace of our two great peoples in a league with our allies will be the best assurance of the blessings which will flow to the world out of the League of Nations.

Delighted as this brotherhood is, cemented forever in war for the men of the two navies, the outstanding lesson is that when all the peoples of these two countries know each other as intimately as do the men of the navies all civilians will "match the Navy," not only in appreciation of each other's virtues but in a full comprehension that only in high resolve to make this good feeling and cooperation permanent can these two enlightened countries fulfill their mission of duty to themselves and responsibility to the world. It is too much to expect that these English-speaking people will always be in agreement, that their interests may not sometimes clash, and that there will not be men in each country who would love to drive a wedge which would keep them apart and antagonistic. It is as true of nations as of individuals that differences of opinion honestly entertained and freely expressed, bind them closer together. When two men always express the same thought, it may be safely assumed that one is the thinker and the other the echo. Strong and virile men wish no such unity. This is equally true of strong and virile nations, and have perhaps greater application in the case of the United States and Great Britain. In the long ago we had serious differences, or, rather, our Governments did. The peoples, with largely the same impulses and the same traditions, each in their own way, have moved toward the same end, which is to make all governments serve the expressed will of the whole people. But these ancient differences are remembered by us only to serve to heighten our respect for each other and to give a pride that we drew our inspiration from the common refreshing stream of Runnymede.

What has been the outstanding attitude in times of crisis between these two countries? The best answer is found in naval action and in naval accord. On both sides of the ocean we will always remember Josiah Tattnal's defense of his display of friendship to Great Britain in Chinese waters. With true naval brevity he summed it all up in his sentence "blood is thicker than water," five words which during the great war have become on both continents a sentiment of mutual peace and has given a feeling of confidence to the world as that shibboleth was translated into action on sea and land. But Tattnal's sententious expression had a meaning deeper than is generally given to it. He knew that "blood" meant more than kinship in the flesh, for it embraced the blood of hostility toward absolutism and faith in free government. "My country, right or wrong," is not the slogan to call true men to the colors, and "Blood is thicker than water" could hearten no patriot unless the relationship embraced common ideals and common courage to visualize these ideals and make them a blessing to mankind.

We love to think in America, and always with deeper love for the British Navy and the British people, of the spirit of friendship displayed by your Admiral Chichester at Manila. Every American officer on duty in southern

ers at Vera Cruz in 1914 felt the same grief which bowed down the British when the news came of the death of your Admiral Craddock when priority in gun power gave victory to the Germans at Coronel. Close association at that time gave us to see the wisdom and statesmanship of your admiral and to conceive for him genuine admiration and regard. His spirit lives over us now, drawing the nations nearer together in imperishable friendship.

May we not in confidence assert that the people of both countries will "watch the Navy" in actual regard, interchange of ideas, and closer fellowship that make the intercourse between nations as noble and as helpful as that which existed between the men of both navies.

From the day that Admiral Sims, our brilliant naval representative in Europe during the war, arrived in London and your able naval representatives came to our country, there has not been an instant when the navies did not set an example which the whole peoples of both will follow in the better days. Countries by valor and statesmanship will do so much to bring to the world.

We hope—most of us, at any rate, hope—that the foundation of the League of Nations will eventually, perhaps sooner than scoffers imagine, sound the knell of at least inordinately large expenditures on great fleets. We realize the full the anxiety, indeed the urgent necessity, felt in Great Britain to reduce naval expenditures to the lowest level compatible with safety. The United States will, I am convinced, do nothing that international developments do not clearly require us to do, to add to the naval burdens of this or any other power. We recognize the political and geographical necessities which call for great sea power, we are convinced that Britons, on their part, recognize that our necessities exist in our case. We, too, have a prodigious coast line. We have a great foreign trade, which is bound to grow, a carrying trade that will grow with it, and obligations growing out of our League of Nations covenant. The United States does not aspire, as we believe Great Britain does not aspire, to possess such strength at sea that we can impose our decrees arbitrarily upon free people. Such a tradition is wholly foreign to our political nature and far out of tune with our traditions. But if the evolution of the League of Nations is not such as its friends and devotees in Europe and in America hope it may be, if competition in armaments must continue, as in the past, untrammelled by any other consideration than a nation's financial capacity—then, inevitable as the choice will be, repugnant as it will be to the American people, it will be essential, from the dictates of elementary national interest, that they build and maintain a fleet commensurate with the needs of national defence and with our international obligations.

The CHAIRMAN. On May 22 you wrote me a letter, which I will put on the record here, inclosing a copy of your entire speech made before the Anglo-American Society in London on Thursday, May 1,

Secretary DANIELS. That is right; yes.

The CHAIRMAN. In that speech I find the only allusion made to Admiral Sims was the following, on page 9:

On the day that Admiral Sims, our brilliant naval representative in Europe during the war, arrived in London and your able naval representatives came to our country, there has not been an instant when the navies did not set an example to the whole peoples of both will follow in the better days our countries by valor and statesmanship will do so much to bring to the world.

Let me state that as the allusion to Admiral Sims in your speech.

Secretary DANIELS. Yes; I made that speech before the Anglo-American Society on May 1, 1919.

The CHAIRMAN. In the London Times of Friday, May 2, 1919, extracts are given from your speech.

Secretary DANIELS. What date is that?

The CHAIRMAN. May 2. The speech is given. These extracts are in the third person.

Secretary DANIELS. You say it is in the third person?

The CHAIRMAN. Yes. I find the following [reading]:

A LASTING BOND.

He rejoiced—

That is, you—

that in its cooperation with the British Navy, the Navy of the United States was represented here by a courageous, wise, and brave man who understood the very heart of the struggle, and entered into it with sympathy and the heartiest feeling for his British comrades.

Do you recall having made any such statement? I do not find it in the transcript of the speech which you have sent me.

Secretary DANIELS. I could have made that statement about Admiral Rodman or Sims, or any other officer who was abroad; that they entered with the heartiest spirit, as they did. But, Mr. Chairman, I will say to you that the speech I gave you is the speech I wrote and the speech I furnished for the press.

The CHAIRMAN. And the speech that you gave?

Secretary DANIELS. And the speech I gave.

The CHAIRMAN. You did not say what was stated in the London Times?

Secretary DANIELS. I could not say that I did not use some of those words.

The CHAIRMAN. Now, I find in the Philadelphia Public Ledger for Monday morning, May 17, the following:

Secretary DANIELS. What year was that?

The CHAIRMAN. That is of this year, 1920 [reading]:

The following report of Mr. Daniels's remarks appeared in the London morning papers of May 2, 1919, and is virtually verbatim.

I find the following reference to Admiral Sims:

Ten years ago Admiral Sims, speaking at a banquet in London, made a speech in which he said that if the time ever came when the soil of Great Britain was threatened with invasion the American people would fight with the English people shoulder to shoulder. Nor did they forget that the admiral was rebuked for that speech, for the President, in pursuance of policy, sent him a formal reprimand. That reprimand, in the light of this hour, was a decoration of honor. He rejoiced that in this cooperation with the British Navy the Navy of the United States was represented here by a courageous, a wise, and a brave man, who understood the very heart of the struggle, and who entered into it with sympathy and the heartiest feeling for his British comrades.

Do you recall ever making a statement of that kind?

Secretary DANIELS. No; I recall making this speech.

The CHAIRMAN. Are you sure that you did not make that statement?

Secretary DANIELS. I am certain that I did not use some of those words.

The CHAIRMAN. Did you refer to his——

Secretary DANIELS. Guildhall speech?

The CHAIRMAN. Guildhall speech?

Secretary DANIELS. I do not think I did.

The CHAIRMAN. But you are not certain?

Secretary DANIELS. I never would be certain that I did not refer to it; no; but I was very careful to write that speech and to deliver it almost word for word as I had written it.

the CHAIRMAN. And what you have given me here is a transcript of speech as you had written it; and it was delivered and then taken up from your recollection?

Secretary DANIELS. No; I wrote it first, before I delivered it.

the CHAIRMAN. Then, can you be sure that you did not say what is in the London Times of May 2, or what was quoted from the Philadelphia Ledger of May 17, 1920, as having been given in the British papers?

Secretary DANIELS. Mr. Chairman, I have been a reporter myself. I put this speech out to all the London press. Reporters never do repeat you exactly as you make a remark. They try to get you right. Sometimes they fail and sometimes they do not.

the CHAIRMAN. But in an enthusiasm like that in London one sometimes expresses more than one has written down, does not one?

Secretary DANIELS. But not at that time, because I was very careful of that speech, and since you have quoted from it I wish to read a paragraph from this speech made to the Anglo-American Society, London, May 1.

the CHAIRMAN. Is not that already in the statement you have given us?

Secretary DANIELS. Yes; but this will come in here. It is just a paragraph [reading]:

Hope—most of us, at any rate, hope—that the foundation of the league of nations will eventually, perhaps sooner than scoffers imagine, sound the knell of at least inordinately large expenditures on great fleets. We do not to the full the anxiety, indeed, the urgent necessity, felt in Great Britain to reduce naval expenditures to the lowest level compatible with the maintenance of the United States will, I am convinced, do nothing that international law and justice do not strictly require us to do, to add to the naval burdens of any other power. As we recognize the political and geographical necessities, which call for great British sea power, we are convinced that the United States will, on their part, recognize that similar necessities exist in our case. We will not have a prodigious coastline.

And that in London, Mr. Chairman, when there was a great deal of discussion in the papers criticizing America for building a great fleet of battle ships [continuing reading]:

We have a great foreign trade which is bound to grow, a carrying trade which will grow with it, and obligations growing out of our league of nations to be met. The United States does not aspire, as we believe Great Britain does, to possess such strength at sea that we can impose our decrees unilaterally upon other free peoples. Such a tradition is wholly foreign to our American nature, and utterly out of tune with our traditions. But if the evolution of the league of nations is not such as its friends and devotees in America hope that it may be; if competition in armaments continues, as in the past, unchecked by any other consideration than a national financial capacity—then, regrettable as the choice will be, repugnant as it will be to the American people, it will be essential from the dictates of every national interest that they shall build and maintain a fleet commensurate with the needs of national defense and with our international obligations.

CHAIRMAN. That may be very fine, Mr. Secretary, but I can see what it has to do with Admiral Sims. I am asking you now about the admiral.

Secretary DANIELS. I wished to show you the character of the speech I made in London before the Anglo-American Society.

CHAIRMAN. Yes; but the paper indicates that you said a great deal more about Admiral Sims than you admit saying; and it seems

inconceivable to me that a great paper like the London Times or the Philadelphia Ledger would make statements not backed up by facts.

Secretary DANIELS. I spoke very cordially in that letter and in that speech about Admiral Sims. I spoke of Admiral Sims, I spoke of Rodman and of Strauss. The paper does not have that in other speeches I made there. I spoke of the very close cooperation we had with the British Navy, and how we rejoiced in it; and I do now. It is one of the things of the war that I am happy about, that in this great war our Navy and the allied navies worked in very close harmony and cooperation.

The CHAIRMAN. And when you made this speech and when you made these statements that I have referred to, you knew about what Admiral Sims had done during the war, did you not?

Secretary DANIELS. What do you mean, about what he had done?

The CHAIRMAN. About his record during the war, and what you call his alleged lack of vision and aggressiveness.

Secretary DANIELS. Mr. Chairman, I may state very well and very truly, and it is very true, and Admiral Sims was an able officer, and Admiral Sims did many things. When I say that he lacked vision about boldness, about audacity, about the barrage, about the bases, and other things over there, I do not minimize the value of his work in London and his cooperation with the allies. I would not, if I could. I rejoice in it, and as Secretary of the Navy I rejoice that our officer there was cooperating earnestly with our allies.

The CHAIRMAN. In a book of yours which I have sent for, Mr. Secretary, I believe there is a preface by a Mr. Jenkins.

Secretary DANIELS. Yes.

The CHAIRMAN. The preface you are familiar with, are you not?

Secretary DANIELS. Yes; I think I am.

The CHAIRMAN. And I believe in the preface it states that Admiral Sims, while on the other side, was in command of a great number of officers and men, and the exact figures are given in the preface.

Secretary DANIELS. Admiral Sims was the chief naval representative in London; yes.

The CHAIRMAN. And in command of those——

Secretary DANIELS. Of those men, yes, in the sense—his command over there was always this way: He was sent over first as a confidential representative. Then he was made force commander. Then he was made naval attaché, and the forces abroad reported to him, although the forces afloat technically were always under control of the commander in chief of the fleet, though the chief direction came from Operations here in Washington. It was rather an anomalous position.

The CHAIRMAN. But there was nothing in that preface—and I will quote the part referred to when the book comes—stating that he was not actually in command, was there?

Secretary DANIELS. Well, Admiral Benson was actually in command of every ship in the Navy all during the war, although he designated——

The CHAIRMAN. It seems to me if an error is made by a man who is writing a preface for your own book, before you allowed it to go out, you naturally would correct it, would you not?

Secretary DANIELS. What do you mean by "command." Mr. Chair-

the CHAIRMAN. I do not know. He stated they were under his command. I will read it when I get the book.

Secretary DANIELS. Admiral Sims was force commander of the fleet abroad; but, as I said to you before, his position was somewhat anomalous. He never was afloat; he never personally commanded a fleet of destroyers or otherwise, except one week when he took Admiral Baily's place at Queenstown. That is no reflection on Admiral Sims.

His duties were usually as naval attaché and British representative at London, and of course he was there in charge, and he was the force commander through whom the men reported. You will read on page 5, Mr. Chairman, of the report of 1919, "Summary of activities of United States naval forces operating in European waters," you will see he calls himself the force commander. That is what he was, and it was a very important place. The CHAIRMAN. Yes; but you have stated, or I think some of the witnesses have stated, that he was merely a representative of the Bureau of Operations.

Secretary DANIELS. I have never said that he was merely a representative. I have said that his function was chiefly in London, and that what Capt. Pratt's was in Washington. Capt. Pratt was assistant for Operations, and was called that. Admiral Sims was in charge of Operations in London. He was also naval attaché.

The CHAIRMAN. I will now read what Mr. Jenkins says in his introduction [reading]:

"When hostilities ended there were more than 300 vessels, and a force of more than 5,000 men and officers operating in European waters under Admiral Benson's command."

Do you not see how you could be very much more specific than that.

Secretary DANIELS. I have always said he was the force commander, and those ships reported to him and took orders from him just as he took orders from Operations here.

CHAIRMAN. Do you not think he is entitled to the credit of commanding those men?

Secretary DANIELS. Just exactly the same way as Admiral Benson in command of the fleet, both afloat and ashore; Benson in England and Sims in London. I do not reflect upon him. I am telling you the fact. He was not afloat; he was ashore. And I say this, that when the bill came up to make two admirals it was discussed in the Naval Affairs Committee with some members. One member of the committee objected to making two admirals in the Navy, and they said they understood if they were made, I would recommend Benson and Sims. I frankly said, "Yes, I will," and they said, "Well, we rather do not believe it ought to be done." Neither one of them was afloat; neither one of them ever commanded ships in battle; and we think that the title of admiral should go only to a man who commands ships afloat; and I think that largely had to do with the fact that the Senate did not make any admiral in the Navy.

Another gentleman of the committee said he was perfectly willing to make them both vice admirals, but he could not vote to make any admiral in the Navy for life unless, like Farragut or Dewey,

he had been actually in battle afloat; that men who were occupied with great administrative duties, like Benson and Sims, were entitled to distinction, but that he doubted the wisdom of making either of them an admiral, or any man an admiral for life, unless he had been afloat in battle.

The CHAIRMAN. When Admiral Benson went over to London and had looked matters over there, he recommended, did he not, that Admiral Sims be given an adequate staff, a much larger staff, than he had, in London?

Secretary DANIELS. I do not recall about that.

The CHAIRMAN. And Admiral Sims had been asking that for some time, and therefore he justified Admiral Sims's request, did he not?

Secretary DANIELS. Yes; Admiral Sims's staff. Well, you remember, as I said in my direct testimony, that before Admiral Sims went abroad the American ambassador wrote that if we would send an officer over, the British Admiralty would furnish an adequate staff. Admiral Sims had, when he went abroad, his aid, Commander Babcock, the naval attaché, Capt. Macdougall, Capt. Toby, and pretty soon, Commander Daniels, and he was authorized to take such staff from the excess of officers from the ships that went over early, as he might desire. My recollection about his staff is this, because that was not a matter that I personally handled, that the only telegrams that impressed me about his staff, from Admiral Sims in the early days, were that he telegraphed me repeatedly to send Capt. Pratt over; and then he telegraphed to send over Mr. Belknap—Commander Belknap—and he mentioned men by name. I did not have the disposition of the officers personally, myself, and as I said in my direct testimony, I should have been happier looking back on it—or looking forward to it if it had been called to my attention, if he had had more men on his staff the first few months and less the last few.

The CHAIRMAN. Admiral Palmer stated he wanted to get the course at the Naval Academy shortened to three years. You opposed that, did you not, until war was actually declared?

Secretary DANIELS. He did not propose it until about the time war was declared. I have a very jealous feeling about graduates of the Naval Academy. I think a graduate of the Naval Academy who gets less than four years lacks the training that ought to belong to a naval officer.

The CHAIRMAN. He did not propose it until war was declared?

Secretary DANIELS. He did not propose it until just before war was declared. Palmer came into office in August, 1916. I have forgotten the date he proposed it, but it was in the fall or the next spring.

The CHAIRMAN. That is, it was before we declared war on Germany?

Secretary DANIELS. He came in in 1916. I do not recollect the date, but it was before I went before the Naval Affairs Committee.

The CHAIRMAN. I think the testimony shows that it was some time before war was declared.

Secretary DANIELS. He came into office August 20 or August 25—in August, 1916—about six months before they broke off relations with Germany. I do not recollect the date when it was proposed. I was not very keen about it. I am not certain now that it was a

thing. I have very grave doubts of it, and so I told Admiral Palmer that I hated very much except under the gravest emergency to see men go to the Naval Academy and be graduated without a three-year course, and I would take it up with the Superintendent of the Naval Academy and talk with him about it. I took it up with Admiral Eberle and talked it over with him.

THE CHAIRMAN. You even considered a five-year course, did you not? Secretary DANIELS. Before the war?

THE CHAIRMAN. Yes.

Secretary DANIELS. Oh, yes; I believed we ought to have a five-year course at the Naval Academy in time of peace. I think it is a mistake to graduate naval officers without a long enough time. Send men to medical schools for four years. They go to college four years and then have three or four years at a medical school. In my way, and we had the time, I would not permit any man to graduate at the Naval Academy under five years; and then after he had graduated and gone to sea for two years I would bring him back for a post graduate course. It is a position requiring great knowledge in many ways.

Now, as to the Naval Academy, Mr. Chairman, I am glad you are about that. When I came into office the Chief of the Bureau of Navigation said that enough men were going to the Naval Academy to give officers for years to come. Before war was declared I recommended, and secured from Congress, an increase of midshipmen from one per Congressman to five per Congressman, making possible a large increase in officers from the Naval Academy. I doubted that a three-year course, but after I talked with Eberle about it he said that during these boys' study in the summer, and under these circumstances or conditions, he thought it the wise thing to do; so I recommended to the Naval Affairs Committee, after reflection, and we passed it and lost no time about it. I say now, if I had known when I proposed it that the war would end in 1918, as it did, I should have opposed it, and I intend to order every man who graduated there under a three-year course, as soon as he has been to sea for two years, to go to the Naval Academy for a post-graduate course; because, naturally, no matter how able and bright he is, he had to skim through the course in three years, when we owed him the full time of five years.

THE CHAIRMAN. But for the emergency of war you were justified in going down the course to three years?

Secretary DANIELS. In that emergency of war we did it.

THE CHAIRMAN. And you opposed it until war was actually declared?

Secretary DANIELS. It never was suggested to me—I will get that straight. My recollection is that it was suggested in the spring of 1917.

That my objection to it—and that objection is very well founded and very strong, in my judgment—I know that there was a delay of a day in securing it from Congress by reason of my talking about shortening the course for naval officers. I wished it to be longer.

THE CHAIRMAN. Admiral Palmer also stated that he wished to put more officers on duty in order to stimulate recruiting, and that you opposed this.

Secretary DANIELS. I believe it is a very exceptional retired officer who makes a good recruiting officer. Retired officers, as a rule, have been retired for age or for some disability, and there are certain duties they can perform very well, and we did call them back during the war; but for recruiting duty I did not then approve it, and I do not now approve it. I think we ought to have younger men, more active, and we ought to give places of more responsibility to old officers.

The CHAIRMAN. On page 1089 of the record, in Admiral Palmer's testimony, appears the following [reading]:

The CHAIRMAN. And you took matters in your own hands and went ahead? Capt. PALMER. Yes; I did. I did not do that, however, until after I had exhausted every other means to get the thing done. I think, though, the whole thing was due to procrastination.

The CHAIRMAN. On the part of the Secretary?

Capt. PALMER. Yes, sir. I was forced—

The CHAIRMAN. Did the Secretary give you any reasons for delaying the carrying out of the plan?

Capt. PALMER. Well, no reasons, of course, that appealed to me or appealed to our people that were charged with personnel, but he would say, "We have too many reserves now. We do not want any more."

The CHAIRMAN. Did not this, in your opinion, discourage recruiting?

Secretary DANIELS. I will tell you about that.

The CHAIRMAN. I want to ask you some questions on that.

Secretary DANIELS. Yes.

The CHAIRMAN. How many of the reserves came under class 4?

Secretary DANIELS. About three-fourths of them.

The CHAIRMAN. Those reserves that came under class 4 could not be ordered out of the districts in which they were enlisted?

Secretary DANIELS. And could not be called to service at all until war was actually declared. And when I told Admiral Palmer not to organize any more propaganda for reserves we were 20,000 short on regulars; and I instructed him to use all the machinery of his office to enlist the 20,000 regulars, who could be sent anywhere at any time to do anything, and then after they were in then we would get the reserves.

The CHAIRMAN. But undoubtedly you could get men in the reserves, when you could not get them to go into the regular Navy?

Secretary DANIELS. We could not use them. We could not even take them in and train them.

The CHAIRMAN. You could change them over, as you afterwards did, you could not?

Secretary DANIELS. Look here, Mr. Chairman, on August 29, 1916, we had authorization to go from 60,000 to a possible 97,000. I instructed Navigation to enlist all they could, and they were very active, but young men would not enlist. The reserve was perfectly open to them. They could have gone in without any let or hindrance, but the last of the year Capt. Palmer began to arrange plans for a propaganda and a drive for reserves, who could not have been taken in for training, who could not be called to the colors. All that would be done would just to be a card index man.

The CHAIRMAN. But they could be changed over at any time, could they not?

that nearly all of them were glad to come in.

Secretary DANIELS. That was in war, Mr. Chairman. In the days of the fall and the early spring every reservist who had come to us of classes 2 and 3 we earnestly sought for. The class 4 we did not desire to stress, because if we pressed them, we probably would have gotten men to have gone into the reserve that we could have gotten into the regulars, and the regulars were the chief men we wanted. There was no lack of any earnest effort to secure regulars, and when the number of regulars was filled there was no lack of earnest desire and order to enlist the reserves.

The CHAIRMAN. On page 1096 of the typewritten record appears the following [reading]:

The CHAIRMAN. Did the Secretary ever criticize you for not carrying out his orders, or did he ever talk with you about the fact that you had not done so?

Capt. PALMER. Well, the Secretary sent for me several times on the subject. In fact, I was in the Secretary's office at least a dozen times a day. This was all, generally, in regard to the details of assignment of a man or an officer, or something like that, that he wanted to ask about. He said, "I told you to stop the reserves, and it has not been done. Now, I want to see the order about stopping the reserves"; and he wanted them stopped. Pretty soon he would find out that some one was in some place, and he would ask me about it. I would say, "Mr. Secretary, we had to go ahead. We needed these people and those people." And I said, "We got the word from Operations, and we simply had to go ahead." Well, the general thing was, "Well, don't get any more." That was the general idea.

The CHAIRMAN. If you had not done so, the Navy could not have performed the signal service during the war that it did perform?

Capt. PALMER. It could not have done anything, sir. It could not have done anything.

That is the statement of the Chief of the Bureau of Navigation.

Secretary DANIELS. Well, Mr. Chairman, Capt. Palmer is mistaken about that. Let me give you a statement. As I said just now, I never ordered not to enroll reserves at any time except when we did not have the Regulars full, when I ordered them not to make an active campaign. There never was a minute when reserves could not have been enrolled, but we could not begin an active campaign.

On April 1, 1917, there were then a total of 8,000 in the reserve. During the month of April there were 16,000 enrolled in the reserve force. Of this number there were 11,000 enrolled in class 4, and none of them could be sent to sea on regular service.

During the month of May there were 13,000 Naval Reserves enrolled. Of this number 10,000 were in class 4.

On June 1—this is a remarkable figure—out of a total of 38,000 men enrolled in the reserve force, 25,000 were in class 4. In other words, nearly three-fourths of the Naval Reserves enrolled on this date could be used only for seacoast defense on land and could not be sent to sea for the general service of the Navy.

So, as soon as the regular force was filled up, we got the reserves; and as to getting men in the service, Mr. Chairman, we had a very hard time getting them in until just before war was declared; and after that they literally poured in, so that there was not any trouble about getting men. They just came, and we had to hold them back sometimes. There were a great many of them coming in.

The CHAIRMAN. And at any time they could have been changed over from class 4 to class 2?

Secretary DANIELS. Any time after they came into the service.

The CHAIRMAN. Any time after they came into the service.

Secretary DANIELS. Not until they came into the service. The way we change them over was this. I had no authority to do it. They enlisted in class 4. The President could not send one man in class 4 out of the district in which he enlisted to work. We could not put a class 4 man on a destroyer.

The CHAIRMAN. But you could change him over at any time on his request, or if you did ask him to do it, and he consented, then you could change him over?

Secretary DANIELS. Yes. I told the Bureau of Navigation that no man must be promoted who did not get out of class 4 and come into a seagoing class.

The CHAIRMAN. You do not think it was only on account of that promotion that those splendid young men changed over, do you?

Secretary DANIELS. No. In my direct testimony I said this, that most of those men in class 4 enrolled in class 4 because they thought that class 4 was the only way they could come in the Navy for the war. Nine-tenths of them were influenced only by a desire to serve for the war. They did not wish to be bound for service after the war. But there were men in class 4—not many—who did not wish to go to sea. But the bulk of them came in from a fine spirit, into class 4, for the war, and then later, of course, those splendid young fellows very gladly and voluntarily went into the other class. But I had no authority except to take them voluntarily or refusing promotion. And so I did that, and they came in and did splendid service. Most of them were actuated in coming into the reserve because they only wanted to come in for the war.

The CHAIRMAN. What were the circumstances that led to your appointment of Admiral Sims for service abroad? Why did you pick him out?

Secretary DANIELS. Well, we first picked out Admiral Wilson to go. He was first choice. But about that time it was decided to organize a patrol force under Admiral Mayo, and Admiral Wilson was put in charge of the patrol force, of cruisers, etc., and we selected Admiral Sims for the reason that he was president of the War College; he had spent much of his life abroad; he had been naval attaché in Paris during the Spanish-American War; and he knew the people in France; he had spent much time in Great Britain, and he had a wide acquaintance with British naval officers; and we thought he was well equipped for the work and that he would immediately get in such intimate touch with our allies abroad in the navy as to enable us to more rapidly and whole-heartedly throw our whole force into the war.

The CHAIRMAN. Did he possess your confidence?

Secretary DANIELS. I had confidence in his ability—yes; he possessed my confidence. I would not have sent him unless I had thought that he was an able and loyal officer.

The CHAIRMAN. What was your attitude toward the recommendations made by Admiral Sims—that you wanted to follow them out if possible, or not?

Secretary DANIELS. Wherever they were wise, and in most instances they were followed out. Of course, we assumed the right and the duty—the responsibility—of passing upon them.

The CHAIRMAN. They were followed out what?

Secretary DANIELS. I say, we assumed the responsibility and the duty of passing upon his recommendations; but the policy generally was, as I told all the bureau chiefs and everybody, our forces must have the first go. Do everything you can for the men abroad; give them everything possible as quickly as possible; cooperate wholeheartedly and rapidly and effectively.

The CHAIRMAN. As quickly as possible? Did you know at the time that these recommendations were made only after full discussion and agreement with the heads of the allied navies?

Secretary DANIELS. Did I know what?

The CHAIRMAN. That these recommendations were made only after full discussion and agreement with the heads of the allied navies?

Secretary DANIELS. What recommendations?

The CHAIRMAN. That Admiral Sims made, that I just asked you about.

Secretary DANIELS. Which ones?

The CHAIRMAN. I asked you what your attitude was with regard to Admiral Sims's recommendations. Now, I ask you if you knew these recommendations were made only after full discussion and agreement with the heads of the allied navies?

Secretary DANIELS. I think some of them were; and some, I think, were his own recommendations. Certainly he did not ask them for any recommendations about whom he should have on his staff, or whom we should have abroad in the American Navy. As to policies, he would generally say, "The naval council recommended so-and-so," and if they were his own recommendations, he would say, "I recommend so-and-so."

The CHAIRMAN. There has been a good deal of testimony about the delay in carrying out these recommendations. Have you any particular explanation about that?

Secretary DANIELS. No; I know of no delay that could have been avoided.

The CHAIRMAN. Did you believe that any of his recommendations were unsound, or did you consider Admiral Sims untrustworthy in anyway?

Secretary DANIELS. I considered some of his recommendations absolutely unsound, and did not approve them.

The CHAIRMAN. Not enough so to warrant calling him back?

Secretary DANIELS. No; because, as I have said in my direct testimony, the things he did that I enumerated here that I heartily disapproved of, I did not know of until long after he came back.

The CHAIRMAN. Did you consider any of the recommendations made unsound that were afterwards accepted?

Secretary DANIELS. How is that?

The CHAIRMAN. Did you consider any of his recommendations unsound that were afterwards accepted?

Secretary DANIELS. Well, I do not know how to answer that, unless I knew what you mean.

The CHAIRMAN. If you did, that would prove that they were not unsound as developed by later events?

Senator PITTMAN. They might be unsound to-day and sound six months from now.

Secretary DANIELS. Exactly. For instance, he made some recommendations about men he wanted over there, that I knew so well that they were not the best men to go that I did not send them. Every recommendation that he made was taken on its merits, with the view always, and the desire, to do everything possible that might make it easy for him to throw the fullest weight of American cooperation in the war.

The CHAIRMAN. Was it your policy to sacrifice every other consideration to defeating Germany on the seas, by overcoming the submarine menace?

Secretary DANIELS. It was my policy to sacrifice everything on earth to defeat Germany by every way possible.

The CHAIRMAN. Especially by overcoming the submarine menace?

Secretary DANIELS. In every way possible.

The CHAIRMAN. In the beginning, before the war that was looked upon as the principal thing we could do?

Secretary DANIELS. In the beginning of the war we sent Admiral Sims over to give us information, and my purpose was that the Navy should do everything possible to win the war. Now, of course, the outstanding and great service that the Navy rendered, the most important service it rendered, and the service which to me was always the nearest and dearest, was the safeguarding of the troops that went to France, who won the war.

The CHAIRMAN. When you sent Admiral Sims over you believed that the personal friendships that he had in England were of material value to his office, did you not?

Secretary DANIELS. I thought his acquaintance and intimate association with the British officers would bring him into close touch, and accelerate the cooperation that we desired.

The CHAIRMAN. Not to get any private information from that?

Secretary DANIELS. Oh, no.

The CHAIRMAN. But to enable him to cooperate with the British?

Secretary DANIELS. I thought if he went to Great Britain and he knew these officers, the more rapidly could he get information if some man should go whom they did not know. You have to get acquainted.

The CHAIRMAN. And he went as the fully accredited representative of the Navy Department to the allied admirals?

Secretary DANIELS. I have told you he went as the fully accredited, confidential representative of the Secretary of the Navy. Afterwards he had other status.

The CHAIRMAN. Did you place any confidence in the reports of Admiral Sims, and Ambassador Page, and Mr. Hoover about the criticalness of the submarine situation?

Secretary DANIELS. Certainly. I knew the situation was critical—I knew they were sinking many ships before Admiral Sims went over.

The CHAIRMAN. And you believed it to be very critical at that time?

Secretary DANIELS. Yes; I believed that it was a serious situation.

The CHAIRMAN. They put it that it was a very serious situation.

Secretary DANIELS. Well, it was a very serious situation, and I was tremendously interested in it.

Secretary DANIELS. I directed the Chief of Operations—

The CHAIRMAN. What?

Secretary DANIELS. I directed the Office of Operations to use every ounce of naval strength in the best way possible to defeat the Germans. As to the disposition of any fleet, as to the assignment of this or that ship, that was a matter which was entirely in the hands of the Office of Operations.

The CHAIRMAN. Did you have any particular information which led you to fear an attack on the Atlantic coast?

Secretary DANIELS. Admiral Browning told me on April 13—told us—that he feared that submarines were coming over to Halifax, and he wished us to meet them, which we promised to do; and I think Admiral Sims telegraphed that they might do that.

The CHAIRMAN. But no submarines came?

Secretary DANIELS. And as a matter of fact, I do not think there is any man in America, from the beginning of the war to the end, who did not fear two things. I think there were two things that were always possible and imminent—or were believed to be so then. One was that the submarines would come across the Atlantic, and when we began to send our soldiers over, the thing we feared was that some German raider would get out.

The CHAIRMAN. But no submarine could come over very well without warning, could it—and did not?

Secretary DANIELS. Yes; they could.

The CHAIRMAN. But they did not?

Secretary DANIELS. They did come over.

The CHAIRMAN. But not without warning?

Secretary DANIELS. Well, Mr. Chairman, when a submarine comes over you have warning in time.

The CHAIRMAN. As a matter of fact, we got very adequate warning, did we not?

Secretary DANIELS. Yes; in time.

The CHAIRMAN. From Admiral Sims, when they did come over?

Secretary DANIELS. Not when they came over before we entered the war.

The CHAIRMAN. No; I am talking about afterwards.

Secretary DANIELS. And we had warning that they had come out and were coming over; but as Admiral Jellicoe well says in his book, and all naval experts will support that, while the Allies had what they thought was, and what in many instances was, excellent service by which they knew often that submarines were coming out, they often came in most unexpected places, and you never could depend absolutely on saying that you always had warning. You had always to understand, in this warfare as in all warfares, the unexpected may happen.

The CHAIRMAN. But as far as the patrol duty of our ships on this side is concerned, as the matter turned out, they need not have done this patrol duty, need they?

Secretary DANIELS. Well, it is very well to sit down to-day and say what you knew. All during the war there was always the danger of submarines coming on this coast, and at the request of the

British and French admiralities we started a patrol on the 13th of April and kept it up during the war, and kept it up from Halifax to beyond Panama.

The CHAIRMAN. Have you any reason to believe that Admiral Sims had any other motive than to secure the earliest possible defeat of the Germans?

Secretary DANIELS. What is that?

The CHAIRMAN. Have you any reason to believe that Admiral Sims had any other motive than to secure the earliest possible defeat of the Germans?

Secretary DANIELS. No; I do not think he had; certainly not. Of course every man in America did and every patriotic American did. That was the whole purpose of everyone.

The CHAIRMAN. And is it not true that his suggestions about fighting the submarine menace, when they were adopted, led to an immediate decrease in the amount of tonnage sunk by the submarine?

Secretary DANIELS. If you want to know what decreased the sinkings by submarines, in early days there were several things that did it. The first thing was—well, I say the first; it is very difficult to name them in the order of their importance, but there was the real experience of men on the sea in handling their ships. The personal experience was a very important element in reducing the submarine menace. Depth charges were very important and very valuable. The convoy system was important and valuable. The listening devices were important. There were many, many things all employed together, which did that. You can not say that any one thing alone reduced it altogether.

The CHAIRMAN. Do you not think that the putting down of the submarine menace had the effect of shortening the war? We have had a lot of testimony on that.

Secretary DANIELS. Have you?

The CHAIRMAN. Yes.

Secretary DANIELS. When you ask me those questions, just put in there, without my having to go over it, that I agree with Capt. Pratt in his testimony in which he said it did not shorten it a day or an hour.

The CHAIRMAN. Then, if the work of these men who were over there fighting against the submarine menace—and it included a very large number of our naval fighting forces—if their work did not contribute in any way toward shortening the war, what good did it do in the war?

Secretary DANIELS. They did a tremendous service, and the greatest service they did in shortening the war was in getting soldiers to the front. They ended the war. Everything the Navy did toward doing that and getting supplies, helped to shorten the war; but the war was won on the western front.

The CHAIRMAN. And these men that helped to put down the submarine menace brought about the condition that allowed the troops to go over, did they not?

Secretary DANIELS. We escorted all our troops over; we used our destroyers in escorting them over; and we protected them in going over; and every man who served and did anything on earth in the Navy from beginning to end to get our soldiers and their supplies over, helped in winning the war.

The CHAIRMAN. We used very few destroyers to escort our troops over and escorted very few soldiers, and a very much larger number toward putting down the submarine menace, did we not?

Secretary DANIELS. I do not remember the number, but they all did very good work.

The CHAIRMAN. And if the work done toward putting down the submarine menace had not been effective work, do you think we would have gotten them over without losing a single life?

Secretary DANIELS. What do you mean by putting down the submarine menace?

The CHAIRMAN. Keeping the submarines in check.

Secretary DANIELS. Every man who fought in the war helped and did good work; but the war was ended on the western front.

The CHAIRMAN. Is it not true that if Germany had won the war from the Allies or had forced Great Britain or France to withdraw from the war, the situation would have been infinitely more dangerous to the United States than any other situation that would have resulted?

Secretary DANIELS. If you will read the report of the General Board, before we entered the war, you will see that they had prepared plans then so that if the worst should come to the worst, we were prepared to fight the war ourselves. The very minute we entered the war we had the closest and most cordial cooperation on land and sea with the Allies, and it is one of the big things of the war that we did.

The CHAIRMAN. Did not the department realize that the war would be lost if the allied shipping could not be protected sufficiently to permit the continuance of war by the Allies?

Secretary DANIELS. We knew that the war would be lost unless enough American soldiers got to France to win it, and everything else was secondary to that.

The CHAIRMAN. In regard to cooperation, was it your idea that the American battleships should operate independently, separate from the grand fleet, under separate command, in case of battle?

Secretary DANIELS. It was my idea that they should take whatever course would make them most effective to win the war; and if the case had ever turned out that we sent our full fleet over, we, of course, would have taken the matter up; but I believe that on sea and land the American forces ought to be American; but there ought to be an allied—a unified—command.

The CHAIRMAN. A unified command?

Secretary DANIELS. Yes.

The CHAIRMAN. And especially in case of war?

Secretary DANIELS. In case of war.

The CHAIRMAN. It would not have done to have had two effective fleets if the German fleet had come out?

Secretary DANIELS. No; we ought to work together.

The CHAIRMAN. This policy was adopted and approved by the department, was it not?

Secretary DANIELS. Oh, yes; the policy that was carried out was approved by the department. In fact, you know, the policy was not only approved by the department, but it was laid down by the department. When Admiral Sims went over he was instructed to

secure the most cordial cooperation, and the first order issued by anybody on this side of a war force was an order I signed to the first destroyers going over, ordering them to report to the British Admiralty at Queenstown. Our plan always was to serve in close cooperation, and in the way that would make our service count the most.

The CHAIRMAN. Could you ever have had the teamwork essential to victory without a common central direction in the case of allied warfare?

Secretary DANIELS. I think we needed the cordial cooperation of all the Allies, and that was the purpose all the way through, and the proper thing was to get together and agree upon the best allied cooperation; and that was the order of the department and the policy of the department.

The CHAIRMAN. You believe that the participation of the United States in the war was of great value to the allied cause, do you not?

Secretary DANIELS. I believe it was not only of great value, but I believe if it did not absolutely win the war, it was the greatest contributing factor to victory.

The CHAIRMAN. And that the naval contribution was a great one?

Secretary DANIELS. Was a great one.

The CHAIRMAN. Do you believe that the naval contribution helped to shorten the war?

Secretary DANIELS. I have told you just now what I thought about that. You could not have gotten the soldiers to France but for the Navy. You could not have gotten the supplies to France but for the Navy. Of course, it did great things; and the Army appreciated it; and the world appreciated it. There never was any suggestion that the Navy had not done a great work. When I was abroad last March in Italy and France and Belgium and Great Britain, I did not meet a naval officer or a king or anybody else that was not enthusiastic about the great thing that the Navy had done in getting the soldiers over.

The CHAIRMAN. And they did help shorten the war?

Secretary DANIELS. I have just told you; they did a great effective work in making it possible for our soldiers to get to the front and our supplies to get to the front; and, of course, that helped to shorten the war on the western front. Certainly they did.

The CHAIRMAN. It did help. Then it is a matter of opinion as to how much it helped to shorten the war; is it not?

Senator PITTMAN. He has already said that we would have lost the war without it. That is the maximum.

The CHAIRMAN. I say it is a question of opinion as to how much it helped to shorten the war; is it not?

Secretary DANIELS. When you go into figures as to what shortened the war, it is like what helped to reduce the submarine menace. But if we had not gotten enough soldiers to the western front the war would have gone on. The war was ended there. And I shall always be proud that the Navy was able to put everything it might wish to do for its own glory secondary to transporting and safeguarding the soldiers who went to France and with whom we cooperated in winning the war.

The CHAIRMAN. While this hearing has been in progress, a court of inquiry has been held in the Navy Department on the question of the dismissal of Admiral Fletcher, I believe.

Secretary DANIELS. Yes. He was not dismissed.

The CHAIRMAN. I do not mean dismissal from the service; I mean from his station in Europe.

Secretary DANIELS. Oh, Admiral Sims detached him from the service in France.

The CHAIRMAN. And the court of inquiry dealt with the question of whether Admiral Sims was justified in doing it, did it not?

Secretary DANIELS. Admiral Fletcher, that this matter be inquired into and officially, desired it to be done, and as in all cases of that character, at the time he requested it, but, of course, in the midst of the war we could not. Later he made the official request, and it was granted. As to the time, it has got nothing to do with this inquiry.

The CHAIRMAN. Oh, no; but as this question has to do with the record of Admiral Sims, can you inform the committee whether the court of inquiry has reported?

Secretary DANIELS. I have not seen their report. It has not come to me.

The CHAIRMAN. They have not reported as yet?

Secretary DANIELS. The court of inquiry, I think, has adjourned. If they have reported the report is in the Judge Advocate General's office. They have not presented it to me yet. I have not seen it. I do not know what they did. The rule in the Navy Department is when a court of inquiry is called, for them to make their report and finding, and it goes to the Judge Advocate General who makes a study of it, and then recommends to me any action that the department ought to take. It has not come to me.

The CHAIRMAN. In view of the considerable publicity that was given the case, and its possible bearing on the reputation of Admiral Sims as connected with this case, if it is proper to do so, I would like to have you inform the committee as to the results of the court of inquiry—the findings of the court of inquiry. I take it they will be made public; will they not?

Secretary DANIELS. All those things are made public.

The CHAIRMAN. They are made public?

Secretary DANIELS. Yes. After the Judge Advocate General passes on them, for instance, he passes on them to say whether they have been conducted properly or not. All the legal questions come out. When they finish they bring it to me for such action as may be wise, and then it is published. We publish a book every year, and it is a matter of public information as to the matter. I have not seen it or inquired about it. It has no reference whatever to this case or this investigation.

Senator PITTMAN. I do not see how this concerns this hearing. I do not know of any charge against Admiral Sims in this connection.

The CHAIRMAN. It does not directly concern this hearing, except that Admiral Sims was connected with the case, and I thought that the committee would like to know the results and the finding, if it was not improper to ask it.

Secretary DANIELS. As a matter of course the inquiry was not directed so much to Admiral Sims as it was a matter of inquiry to see if Admiral Fletcher, in the conduct of that important duty there, had conducted it well and wisely.

The CHAIRMAN. You have no objection to ascertaining whether they have made a report, and if they have, informing the committee, have you?

Secretary DANIELS. None at all. As soon as the report is made I shall make it public.

The CHAIRMAN. Oh, very well. Have you anything to ask, Senator Keyes?

Senator KEYES. No.

The CHAIRMAN. Have you, Senator Pittman?

Senator PITTMAN. This invitation to ask questions is very seductive, but I am afraid there might be rebuttal, and I forego the pleasure.

The CHAIRMAN. Senator Trammell, have you any questions?

Senator TRAMMELL. I do not think that I have any questions.

The CHAIRMAN. Have you any further witnesses you would like to have called before the committee, Mr. Secretary?

Secretary DANIELS. I understood that I was to be the last witness, and so I have not. I do not think so.

The CHAIRMAN. Then I think there is nothing further, and you may be excused. The committee will stand adjourned until 10 o'clock to-morrow morning, when Admiral Sims will appear before the committee.

(Thereupon, at 5.20 o'clock p. m., the subcommittee adjourned until to-morrow, Thursday, May 27, 1920, at 10 o'clock a. m.)

NAVAL INVESTIGATION.

THURSDAY, MAY 27, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m. in room 235, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Keyes, and Trammell.

The CHAIRMAN. The committee will come to order. Admiral Sims, will you be sworn?

TESTIMONY OF REAR ADMIRAL WILLIAM S. SIMS, UNITED STATES NAVY.

(The witness was sworn by the chairman.)

The CHAIRMAN. Admiral Sims, you have already testified before this committee, and since your testimony was given we have heard a great many other witnesses. You are now to be given an opportunity to make a further statement, if you so desire. Will you proceed?

Admiral Sims. Gentlemen, in appearing before you at your request, I desire to make certain fundamental considerations perfectly clear. You have heard a long series of witnesses, who have testified as to the activities of the Navy and of the Navy Department during the war and during the years immediately preceeding the war. You have listened to a long statement from the responsible head of the Navy Department, remarkable alike for its mistakes and misinterpretations and for its unrestrained assault upon my services during the war, upon my motives, and upon my ability and credibility as an officer.

But, before proceeding any further, I wish to state very clearly, and once for all, that in all of the comments that I shall have occasion to make upon the mistakes and misinterpretations in question I do not desire in the slightest degree to imply that they were intentional or that the Secretary was not sincerely convinced of the fairness and correctness of his conclusions.

I have no desire to enter upon any personalities, and I have no intention of doing so, nor will I attempt any answer to the personal reflections and aspersions contained in the testimony of the Secretary.

He has dealt at length with many technical questions, and in doing so has almost invariably drawn conclusions therefrom reflecting upon my conduct and upon my motives, not only during the war, but during a large part of my naval career.

However interesting may be the subject of my personal opinions and private character, it seems to me to have no connection, however remote, with the question as to whether or not the Navy Department committed serious errors in the conduct of the war. I am not appearing before you to defend myself. My sole purpose from the beginning has been, and still is, to do what I can to prevent a repetition of the military mistakes to which I have invited attention.

It was to be expected that some errors should appear in such a discussion of technical military matters. No civilian without previous military training could hope to deal at such length with so many questions of naval policy, strategy, and tactics without some misunderstanding, misinterpretations, and mistakes.

It was hardly to be expected, however, that the responsible head of the Navy should make, under oath, before this committee, a statement in which every essential conclusion was based on errors of facts or misinterpretations of naval matters.

The fact remains, however, that he has done so. In pointing these out I will confine myself to the testimony presented, not by myself or by the witnesses called at my request, but solely by the department's own witnesses.

SUMMARY OF TESTIMONY.

A review of the testimony presented by these department witnesses shows that it divides itself naturally into five main categories, which may be summarized briefly as follows:

First. Confirmation of the criticisms which led to this investigation. The testimony of the department's witnesses has in almost every case completely borne out the conclusions of my letter of January 7, 1920, and the summary of my testimony before this committee in March last.

Second. Tributes to the achievements of the Navy in the war. Nearly all of the department's witnesses have presented documents and made statements of opinion with regard to the achievements of the Navy in the war. Your attention has been repeatedly called to the faithful and efficient service performed by many officers, both previous to April 6, 1917, in an endeavor to prepare the Navy for war, and after that date to conduct the war efficiently and successfully. The inevitable inference from this testimony is that I have not only failed to recognize these services, but have cast aspersions on them. Nothing could be further from the truth. At no place in my testimony and at no time have I in the slightest degree reflected upon these services. On the contrary, in my testimony, in public statements, and in articles recently published I have expressed the full measure of my admiration and appreciation of the magnificent achievements of the American Navy in the war, in spite of the handicap under which it worked.

Third. Conduct of the war by the department. Much testimony and documentary evidence has been introduced by department witnesses concerning the conduct of the war by the department. The officers who occupied the most responsible positions have testified to the long-continued and often unavailing efforts which they made to get the Navy ready for war in the years preceding our entrance into

the war. They have told you in detail of the difficulties encountered in the early months of the war. Their testimony has revealed a condition even more distressing than I could have imagined, and constitutes a much severer criticism of the deplorable conditions in the Navy Department previous to and during the early months of the war than any evidence which I myself presented. They have shown that the department failed to prepare for war, and in many cases resisted the adoption of plans and measures which would have made possible an immediate and effective entrance into the war. These witnesses have also disclosed the full measure of the hesitation and delays and the disregard of military principles by the department in the early months of the war.

Fourth. Necessity for a reorganization of the Navy Department. This condition in the Navy Department was tacitly recognized by practically all of the department's own witnesses. There was an almost unanimous agreement in their expressions as to the necessity for a reorganization of the department so as to make a military organization able successfully to prepare for and conduct war operations. The officers most closely connected with the department's organization during the war were those who have testified most strongly with regard to the need for this reorganization. Further comment seems superfluous.

Fifth. Causes for the conditions brought to light. The department witnesses testifying with regard to the responsibility for the conditions which have been brought to light are in general agreement that these are due primarily to three causes:

- (1) The faulty organization of the Navy Department.
- (2) The policy governing the department's action previous to our entrance into the war and during the early months thereof.
- (3) The failure of the responsible head of the department to take the action required, both before and after the outbreak of war, to meet the urgency of the situation, to prepare the Navy for war, and to strike at once on the fighting front with all available forces.

I propose to take up each of these five points and by extracts from the testimony presented by the leading officers who served in the Navy Department during the war, and who were called by this committee at the request of the Secretary, to show how little disagreement there is as to the essential facts at issue, whatever may be the department's interpretation of these facts, or whatever its excuses may be for the failure to take the correct military action.

I wish, then, to take up the points raised by the Secretary and show by the testimony of the witnesses called at his instance that in each essential case the Secretary's conclusions were based upon mistakes of fact, unsound military reasoning, or misinterpretations of naval matters.

The elimination of extraneous issues: Before taking up detailed points of the testimony, let me invite your attention to one or two of the observations which I made in the preliminary statement which I read before this committee on the 9th of March, 1920.

In referring to the difficulty of separating the unessential from the essential points which were at issue, I said:

These difficulties have been increased by numerous fundamental misapprehensions, which have been indicated either by direct statement or by implica-

tion, in testimony presented to this committee. The entire object of my letter and, in my opinion, of this investigation in its national aspect, will be jeopardized if we are led off into sidetracks; if, for example, personalities having no bearing whatever upon the subject at hand are allowed to confuse the issue.

The fears which I then expressed have been more than borne out by the testimony presented by the department.

Assuming that this testimony is presented in perfectly good faith, still, unfortunately, by reason of the numerous misstatements of facts and misinterpretations it contains, it has all the effect of an endeavor to obscure the questions at issue instead of being an effort to arrive at a dispassionate conclusion as to past errors and as to methods by which they could be avoided in future.

Unfortunately, such mistakes in testimony must inevitably convey the impression that every possible means has been used to discredit and discount the simple statements of fact which have been presented to you, and that all the old familiar devices calculated to arouse prejudice and passions have been used to this end.

Moreover, many extraneous issues have been raised, and a great mass of testimony has been introduced which has no conceivable relation to the facts under discussion.

Yet still, it seems to me that the issues are so clear that even all this elaborate and mistaken testimony can not obscure the plain facts which are based upon official documents. When the testimony of even the department's witnesses is taken into consideration, it will be found that that alone will sustain practically all of the criticisms in question.

In my preliminary statement of March 9 I invited your attention to what seemed to me to be the primary issues involved in this investigation. With your permission, I should like again to refer to these issues.

We entered a great war. The war was won, thanks to a combination of circumstances which it would be entirely unwise and unwise to depend upon in the future. From a United States naval standpoint the prosecution of the war involved numerous violations of well-recognized and fundamental military principles with which every student of naval warfare is familiar.

Briefly stated, they were:

First. Unpreparedness, in spite of the fact that war had been a possibility for at least two years and was, in fact, imminent for many months before its declaration.

Second. That we entered it with no well-considered policy or plans and with our forces on the sea not in the highest state of readiness.

Third. That, owing to the above conditions and to the lack of proper organization of our Navy Department, and perhaps to other causes with which I am not familiar, we failed for at least six months to throw our full weight against the enemy; that during this period we pursued a policy of vacillation, or, in simpler words, a hand-to-mouth policy, attempting to formulate our plans from day to day, based upon an incorrect appreciation of the situation.

To consider these issues is not a violation of trust, nor is it an attack upon the service to which I have the honor to belong. It is the only method by which we can safely provide for the future.

Admiral Beatty has been quoted before this committee as speaking authoritatively against any effort to review critically the operations of the recent war, and the Secretary of the Navy stated that, in saying farewell to the American battleships, Admiral Beatty said: "Now the fighting is over and the talking is about to begin." How erroneously his statement has been interpreted can be judged

from Admiral Beatty's speech at Liverpool, on March 29, 1919, in which he said [reading]:

We made many mistakes, and it is our business to-day to see that the lessons have been taken to heart and that we shall not again be found in such a state that we have to face the greatest crisis in history with improvised methods, working from hand to mouth. It may be said that the result was good enough with such methods; but was it? We have surely no right to continue to rely on improvisation. We in the Navy know our defects, and it is our business to face them, to leave no stone unturned to avoid a repetition of the mistakes from which we suffered in the past. The work of reconstruction has to be taken in hand with a full knowledge of our requirements learnt by bitter experience in the past four and a half years. It must be our endeavor to profit by that experience. The navy is to-day what it has been for the past 200 years, the same sure shield of Britain and the British Empire. The more repetition of this very true and well-known phrase will not insure that we remain so. The sure shield must be kept sure. Clear thinking and concentrated efforts on scientific lines in the necessary struggle for retrenchment and such economies as certainly will be required must be applied with wisdom and a proper understanding of the problems before us in the light of the knowledge gained during the war. Only so shall we avoid impairing the essential efficiency of the navy.

Confirmation of the criticisms which led to this investigation.

In the summary of my statement to this committee in concluding my testimony in March last I stated that the documentary evidence which I had submitted established fully 13 points. A very careful review of the evidence submitted by the Navy Department's witnesses shows that in no single instance were these points disproved. On the contrary, most of them were freely admitted, and the testimony of the department's witnesses seemed to be designed not to disprove them but to explain them away or to obscure them by the raising of extraneous issues. In order to show you how fully the chief officers in the Navy Department confirmed these 13 points, I propose to quote brief statements from their testimony substantiating each one of these points.

Point 1, as contained in my statement of March 9:

That, in spite of the fact that war had been going on for nearly three years and our entry into it had been imminent for at least from February 2, 1917, the vessels of the Navy were not ready for war service when the United States entered.

All witnesses were in practical agreement on this point. It has been clearly established that, apart from the dreadnaughts and destroyers of the Atlantic Fleet, the vessels of the Navy were not ready for war, either as to material or personnel. Before we entered the war the efficiency of the fleet had been seriously impaired by transferring many gun crews to merchant vessels. The General Board, Admiral Benson, and other officers had repeatedly but vainly urged that the Navy be made ready for war. The only explanations offered for the lack of preparedness were the department's interpretation of the country's policy of neutrality and the hesitancy of the department to regard the Navy as an instrument for waging successful war.

ADMIRAL BENSON'S TESTIMONY.

These page numbers refer to the typewritten record.

Page 4480:

The CHAIRMAN. Would you say that the statement in the Secretary's annual report that the Navy was from stern to stern ready for war in April, 1917, was justified?

Admiral BENSON. Not from my point of view; no.

The CHAIRMAN. Was its personnel adequate?

Admiral BENSON. No.

The CHAIRMAN. Were all the ships ready?

Admiral BENSON. No; they were not all ready.

The CHAIRMAN. Were they fully manned?

Admiral BENSON. They were not fully manned.

The CHAIRMAN. Was the Navy mobilized?

Admiral BENSON. It was not.

Pages 4486 and 4487:

The CHAIRMAN. Was our fleet in 1917 in a condition to meet the German Fleet, constituted as it was at that time?

Admiral BENSON. Theoretically, no, Mr. Chairman, it could not be.

The CHAIRMAN. An admiral or commander in chief who would have informed the department that his fleet was in such condition that he could have met the German Fleet on a footing of equality would at heart be lacking in a duty, would he not?

Admiral BENSON. I should consider that it was. * * * With the situation as you stated it, I would have no hesitancy in saying so.

ADMIRAL BADGER'S TESTIMONY.

Page 2760:

Admiral BADGER. The action of the Secretary in 1914 in failing to ask Congress for the increase of 19,000 men recommended by the General Board prevented having adequate personnel for the fleet. * * * It was plain that it would be the part of prudence, and perhaps necessity, to have more personnel for the fleet. There is no doubt about that. Now, what prevented that from being accepted as a proper view, I do not know.

Admiral Badger at the same time stated that the addition of the men recommended by the General Board in 1914 would have made possible the manning of all light craft which were not ready in 1917 because of lack of personnel.

The responsibility lay with the administration * * * the Navy Department.

ADMIRAL M'KEAN'S TESTIMONY.

Page 4373:

The CHAIRMAN. Would you say that the Navy was ready from stem to stern on April 6, 1917?

Admiral McKEAN. From my interpretation of that phrase, I would not, by a good deal.

The CHAIRMAN. How long did it take to get * * * the light craft in a condition of matériel readiness for war?

Admiral McKEAN. Some of them two days, some two months, and some of them six months.

The CHAIRMAN. How long was it before substantially all of them were in readiness for war?

Admiral McKEAN. Oh, I should say six months.

Page 4380:

The CHAIRMAN. Was the Secretary backing * * * in your requests on matters necessary * * * to prepare the country for war?

The CHAIRMAN. I see that quotation contains asterisks which show that parts of the quotation have been omitted.

Admiral SIMS. Yes; in order to abbreviate it. [Reading:]

Admiral McKEAN. Oh, I do not think that the Secretary or I ever said preparing the country for war."

Page 4436:

The CHAIRMAN. I gathered from your testimony that you would not say that the fleet as a whole was ready for war in matériel or personnel in April, 1917?

Admiral McKEAN. No, sir; it was not ready for war as to personnel or matériel; that is, a hundred per cent ready or anything like a hundred per cent ready.

Page 4427. Admiral McKean testified that the action of Admiral Blue and the Secretary in 1914 led to a shortage of personnel in the Navy; that in 1916, the number recommended first was nine or ten thousand, finally increased to 28,000; that much of the matériel depreciation of ships was due to lack of personnel; that the Secretary was wrong in his action.

The CHAIRMAN. And you think that certainly waiting, until two weeks before the war began, to increase the personnel was rather a tardy way of going about preparing the Navy?

Admiral McKEAN. Yes I do; but you have got to take our people's attitude and our fall elections of the year before, and a lot of national policies into consideration before you condemn individuals.

Page 3424:

Admiral McKEAN. I will say that the fleet was not 100 per cent ready, is not 100 per cent ready now, and that it never will be 100 per cent ready at the outbreak of war.

Page 3427:

Admiral McKEAN. Very early in my duties my investigations confirmed my previous opinions acquired with the fleet, that our shore establishments, navy yards, supply bases, etc., had not been developed as rapidly as the fleet had been built up, and that they were not capable of maintaining the fleet materially fit for war.

Page 3421:

Admiral McKEAN. There is no question that we were short of both officers and men; the Navy personnel was too small for its job. The fleet had been built up materially but neither the commissioned or enlisted personnel had kept step with material. * * *

The question of the shortage of enlisted personnel has been fully gone into. We were short. I believe the primary causes of the incorrect recommendations of the then Chief of the Bureau of Navigation were due to the use of that old delusion, "Peace complements for fighting ships."

Page 3423:

Admiral McKEAN. From a conversation I had with Admiral Blue in January, 1918, I am convinced that his errors in estimating the total number of men required in the Navy were due to the fact that he took the ships listed in the General Board's plans and figured them with what he called "peace complements" * * *. His estimate was entirely wrong.

CAPT. PRATT'S TESTIMONY.

Page 3818: A question Capt. Pratt asked himself in his direct statement:

Suppose that on April 6, 1917, the United States Fleet had been forced, in the state of preparedness it then was in, to meet single handed the German high seas fleet * * * what would be your opinion of the state of preparedness we were in?

Capt. PRATT. I would consider such a state of affairs to be criminal.

Page 2832:

Capt. PRATT. Owing to our previous lack of preparedness in matériel and personnel, it was not possible to place them [our naval forces] at the front and

ready to operate as soon as was desired, nor was the organization or administration of the department at the time such that it lent itself to the most efficient handling of the Great War * * * at the beginning * * *. These conditions were true when we entered the war and they lasted until the defects could be remedied, * * * but by April, 1918, * * * they had been in the main remedied.

Page 3937:

Capt. PRATT. If the Navy, as it existed, had been ready for war in 1917, it would have relieved us of a certain amount of anxiety, due to the overload, * * * which it placed on people who have suddenly to jump from peace-time activities to war-time activities.

Page 3672:

Capt. PRATT. I have already told you of the Navy's struggle to prepare after war was declared.

Page 2875:

Capt. PRATT. In this particular war we were fortunate in being given a period of preparation, due largely to the fact that the control of the sea was held by the British Fleet and that, barring the submarine, the German Fleet was contained. Had the situation been reversed * * * our difficulties would have been greatly increased, if not rendered impossible.

Page 3968:

The CHAIRMAN. Was the Navy ready for war as to personnel * * * when war was declared?

Capt. PRATT. Not the way I would like to see it.

Page 3969:

The CHAIRMAN. Who was responsible for this lack of preparation that rendered our forces incapable of quick action?

Capt. PRATT. The Secretary, of course, was the responsible head.

Page 3972:

The CHAIRMAN. You would not repeat the policies and methods of handling the Navy that prevailed from 1914 to 1917?

Capt. PRATT. No, sir; not if I had to prepare for another war.

The CHAIRMAN. Would you say that the Navy of the United States was fully manned and officered in 1917, when war was declared?

Capt. PRATT. It is my impression that it was not * * * the reserve ships were not manned * * * there were not officers and men available to man them.

The CHAIRMAN. Is the Navy in all respects ready for war when its ships are not fully officered and manned?

Capt. PRATT. No, sir.

Point 2 of my statement of March last:

That the first few months after America entered the war were extremely critical ones for the whole allied cause, due to the success of enemy submarines.

Point 3:

That this critical situation was made clear to the Navy Department a few days after America entered the war, and repeatedly thereafter by cables and letters, and supported by independent advices to the Government from the American ambassador in London and by Mr. Hoover in person.

All witnesses agreed with these statements, though there was differences of opinion as to just how critical the situation was.

ADMIRAL BENSON'S TESTIMONY.

Page 4625:

Admiral BENSON. The department at all times had a realization of the situation and did everything they could to meet it.

Page 4630:

Admiral BENSON. I think that the situation was critical, but not very critical. * * * I was alarmed because the situation was a very serious one * * * but in my professional opinion I do not believe they would ever have been able to have forced a peace by the action of the submarine.

Page 4633:

Admiral BENSON. The department, I think, was sufficiently informed as to the seriousness of the situation.

ADMIRAL FLETCHER'S TESTIMONY.**Page 2375:**

Admiral FLETCHER. I always recognized the submarine menace * * * as a very urgent and important matter. * * * It was brought before the conference and certainly considered. (April, 1917.)

ADMIRAL BADGER'S TESTIMONY.**Page 2678:**

Admiral BADGER. * * * The British officers who were here gave practically the same information as Admiral Sims and bore out his recommendations * * * much of it prior to his statement. * * * The department was aware at all times of the real situation. * * * What they did to meet that situation was carried out after study * * * in the belief that the steps they were taking were the proper steps to meet that condition abroad.

Page 2713:

Admiral BADGER. Now, I do not object to saying this as one view of the situation. It looked in April and May very much as though peace would have to be declared by the Allies. The reports that we were receiving were most pessimistic here that they could not hold out.

CAPT. PRATT'S TESTIMONY.**Page 3993:**

Capt. PRATT. The situation was undoubtedly grave. * * * There was no question about that.

The CHAIRMAN. And it was up to us to do everything in our power to relieve it?

Capt. PRATT. There is no doubt about that.

Pages 3867 and 3868:

Capt. PRATT. I think we were all very familiar with Mr. Hoover's opinion on the matter. * * * I think the critical nature of the situation was known after Admiral Sims sent his report to us. I very much doubt if we fully realized the seriousness of the situation until his original cables were received. * * * I can not see how anyone would fail to realize the seriousness of the submarine situation after the first cables from Admiral Sims were received.

Page 3570 (quotation from departmental memorandum, Apr. 15, 1917):

"The result of the war hangs upon the submarine issue. Germany will win the war if she can continue the rapid diminution of merchant shipping. The only hope of the Allies, including America, lies in finding means to curb the effectiveness of the submarine and replacing lost ships, and any further delay will be futile. If the submarine menace can be materially diminished, the war can be brought to a successful conclusion, probably, within a year."

Page 3865:

Capt. PRATT. I do not know whether anybody else realized it in the same sense that I did. It was realized after I came in as aid for Operations, be-

cause then I could talk to my chief, and I know he realized it then. He is really the responsible man, and he can tell you how he realized it and what his attitude toward it was. * * * I thought it so serious that personally I would have sent everything. I never had any other attitude than that.

Point 4:

That the Navy Department supplied me with no plans or policy covering our participation in the war for three months after our entry therein.

This point was not contested. Witnesses explained that the department's only policy was that of full cooperation with the Allies—of doing whatever they wished.

ADMIRAL BENSON'S TESTIMONY.

Page 4684:

The CHAIRMAN. Why did you not realize just what his duty {Sims's} should be?

Admiral BENSON. I did not give Admiral Sims his definite and particular instructions. My impression is, although I do not know that, that they were given by the Secretary. * * * I think he had sufficient instructions for the duty he was called upon to perform. * * * I did not give him such instructions because I did not think it necessary.

Page 4593:

The CHAIRMAN. Was there a sound, complete, and well-defined plan for conducting this particular war?

Admiral BENSON. For this particular war, I do not think so; only such general plans or policies as I have already outlined. * * * No definite war plan was drawn up on paper. No, Mr. Chairman; there was not.

Page 4614:

The CHAIRMAN. What definite plans were drawn up?

Admiral BENSON. I can not give you that information. I can not tell you that now. I assume that there were [plans made]. I know that all that was necessary was done, and that is all that I do know. * * * The purposes that any plan would have accomplished were accomplished. I assume that as the policies went out to my subordinates, what we had of a planning section—drew up the necessary plans or memorandum or instructions or whatever you wish to call them.

Page 4680:

The CHAIRMAN. Did you formulate any definite operational plan?

Admiral BENSON. I merely outlined general policies and left it to the subordinates to develop any plans that were necessary for carrying them into execution. How many plans were developed at all it would be very difficult or practically impossible for me to state. * * * There must have been plans, but I can not recall them.

CAPT. PRATT'S TESTIMONY.

Page 3668:

Capt. PRATT. There were not issued to Admiral Sims any instructions beyond the simple statement of July, 1917. * * * The department relied on him, in close touch with the Allies, while guided by its fundamental principles, to formulate all general war plans within the area of his command and to send them back to us as the basis on which we could begin our work.

Point 5 of my statement of last March:

That having information as to the critical situation of the Allies, the Navy Department did not promptly assist them, and thereby prolonged the war by delaying the sending of antisubmarine vessels, none reaching Europe for nearly a month after war was declared, and over two and one-half months elapsing before 30 vessels arrived.

It has been freely admitted that all forces available were not sent at once and there has been a difference of opinion as to the result of the delays. Generally the witnesses have agreed that our naval contribution was effective when exerted, and that it shortened the war by saving shipping and making possible the dispatch of American troops abroad.

ADMIRAL BENSON'S TESTIMONY.

Page 4634:

Admiral BENSON. We might have sent more destroyers (and other antisubmarine craft * * *) but I doubt if I would have sent more destroyers, because I felt strongly the necessity of safeguarding the battleships (and the American coast). * * * There were a great many (light craft) that we had use for over here; but I think, as far as we could get them ready and in my judgment they could be spared, they were sent over.

CAPT. PRATT'S TESTIMONY.

Page 3670:

Capt. PRATT. That there were delays, that there were mistakes, that it took time before we got into the war in full force is fully and frankly admitted. * * * Some of the reasons why our Navy did not quickly enter the war in full force might * * * with the knowledge gained in this war, be avoided in the future. * * * Some of these (which in my opinion could be avoided) are: Lack of material preparation in the ships concerned; lack of adequate supplies, and of supply and repair bases; lack of sufficient personnel and facilities to train them; a building program planned specifically to meet the needs of the war the country intends to engage in; modern methods of organization and administration and the maintenance of a nucleus organization in peace; a budget system.

ADMIRAL BENSON'S TESTIMONY.

Page 4712:

Admiral BENSON. To have had more destroyers, or submarine chasers, or other craft on the other side * * * [in 1917] would have resulted in saving more British or other allied merchant shipping.

Page 4760: Admiral Benson testified that the work of the American naval forces in European waters was of material assistance in putting down the submarine campaign; that this was of importance in shortening the war because it helped to get the troops over there.

Admiral BENSON. The work in the final shortening of the war so far as the United States was concerned was in getting the troops into France * * * and everything that contributed to that result helped in the final ending of the war.

The CHAIRMAN. That is, helped to shorten the war?

Admiral BENSON. Helped to shorten the war. * * * That helped to shorten the war by helping the morale, that helped the general situation.

The CHAIRMAN. That did, then, help shorten the war?

Admiral BENSON. By getting the troops over.

The CHAIRMAN. Then it is only a matter of opinion as to how much they helped shorten the war, is it not?

Admiral BENSON. It must necessarily be a matter of opinion, the whole thing.

ADMIRAL FLETCHER'S TESTIMONY.

Page 2353: Admiral Fletcher testified that the greatest problem our Government had to face in setting out to win the war was—

to throw all our energy into combatting the submarine menace which at this time was the most critical part of the war on the sea. * * * I do not know just what they (the Navy Department) did, because I was not connected with the operations of the fleet.

Page 2364: Admiral Fletcher admitted that Admiral Sims's recommendations were ultimately followed, and forces sent abroad after delays.

Admiral FLETCHER. As the war developed we saw and could readily determine the probability of submarines coming to this coast, and we very rapidly developed a defense to meet them * * * then every available craft we could operate here was sent abroad.

ADMIRAL NIBLACK'S TESTIMONY.

Page 2420:

Admiral NIBLACK. It has been frequently stated before this committee that keeping the patrol squadron on our coast in the first few months of the war was unjustifiable. * * * In the early stages the forces were undergoing thorough organization and assisting in training additional men, and when the call came for ships to really inaugurate a convoy system, these ships were sent to escort work in France and the Mediterranean. This may not have been soon enough possibly, but the ships were better fitted and organized for their peculiar services by the delay.

ADMIRAL BADGER'S TESTIMONY.

Page 2713: Admiral Badger testified that the General Board, on May 3, recommended sending abroad "as much as the condition of our fleet and the number that we had would permit," but—

It looked in April and May very much as though peace would have to be declared by the Allies. The reports that we were receiving were most pessimistic here that they could not hold out. In that case, if the German Navy had remained untouched, there was no telling how we in this country might have become involved with Germany ourselves, and therefore it was a very doubtful policy whether we should strip ourselves and run the chance of coming in at the last moment and being defeated on the other side so far as the prevention of the collapse of the allied powers was concerned, or whether we would look out for ourselves and our own fleet until we could see about it. Therefore, the man who had a responsibility of that kind considered it from that point of view, also that we must look out for our own fleet in addition to the fleets of the other powers concerned and not strip our battleships of protection against the submarines that might attack them.

I hardly think it is necessary to comment upon those opinions. I have already in my direct statement pointed out that such expressions as "strip our battleships of their destroyer protection" do not mean anything, because they would not have been stripped of their protection by sending destroyers to the other side, because battleships could not be used until they went to the other side, and their protecting forces were already in the proper position to protect them.

ADMIRAL M'KEAN'S TESTIMONY.

Page 3442:

Admiral MCKEAN. While there were and always will be delays—delays on subordinated parts in coming to conclusions on what to base their recommendations, delays in convincing superiors of the desirability or necessity of approving these recommendations, delays in getting the necessary appropriations, delays in obtaining material and men with which to carry out the plans—the responsible authorities, the Chief of Naval Operations, the Secretary of the Navy, the committee of Congress, must each be given time for consideration and deliberation to enable them to act wisely.

Page 4344:

Admiral McKEAN. Our part in the suppression and control of the submarine menace was comparatively small. * * *

As has been previously explained in this paper, there were many good and, to me, sufficient reasons why the immediate sending of all craft that afterwards were sent was a physical impossibility.

That disposes of the statement that the ships were ready for war.

Page 4407:

The CHAIRMAN. If these recommendations [of Sims] could have been followed out very shortly after they were made, do you not think it would have been a very good thing?

Admiral McKEAN. Most of them, yes, decidedly.

The CHAIRMAN. So that if there was delay, it was unfortunate?

Admiral McKEAN. In some of them * * * in the case of the destroyers, yes * * * and the antisubmarine craft.

CAPT. PRATT'S TESTIMONY.

Page 3781:

Capt. PRATT. We should have had about 51 destroyers, 6 tenders, about 7 gunboats, 2 cruisers, and 12 submarines. * * * All these vessels could have been sent at once if they had been in shape.

Capt. Pratt did not know why the vessels were not sent.

Page 2863:

Capt. PRATT. The reason why these ships were not sent at that time can, of course, best be explained by the Chief of Naval Operations. * * * Personally I was not in accord with this policy, as I favored making concessions and sending the ships at once.

Page 2864:

Capt. PRATT. The matter was handled immediately by me and a favorable reply drafted. The answer was not sent immediately, and then it was not a favorable one. The question was being weighed by the Chief of Naval Operations and the Secretary, I think.

Pages 3889 and 3890:

Capt. PRATT. Many delays were caused by discussions in the department. Sims was left free in executing decisions, but a great many explanations were asked. * * * In the case of convoys the department was opposed to the scheme at first, until the Admiralty could prove it would be successful. * * * They were not ready to accept decisions of others or by United States representatives in Europe. * * * It would have been better if the convoy had been adopted earlier.

Point 6:

That the Navy Department failed to appreciate the military value of time.

The departmental witnesses have tacitly admitted this point by their defense and justification of the delays of the department. They contended that a delay of a few months made no difference, although this delay occurred at the most critical period of the war, when reinforcements were most needed.

ADMIRAL M'KEAN'S TESTIMONY.

Page 4375:

Admiral McKEAN. I had certain minor difficulties. I had delays. I had to convince my chief, first, of the necessity of it. I sometimes had difficulty in convincing the Secretary when it involved money. * * * It would not go as fast as I wanted it. * * * Congress, too, delayed.

Page 4376:

The CHAIRMAN. Did you meet with any delay that in view of what happened afterwards did not seem justifiable to you?

Admiral McKEAN. Oh, I could not cite examples. I think if they had accepted my recommendations as soon as made, and Congress had given me the money as soon as I wanted it, there is no doubt that we would have been better prepared; and with the hindsight, I have no doubt that the Secretary, when he did not agree with me right away, and the committees, when they did not give me more than half as much money as I asked for * * * I suppose they are both regretting it. I regretted it at the time. * * * After war was declared. Senator, we had all the money we could use.

Pages 4402 and 4403:

Admiral McKEAN. I probably felt very often when I wanted a thing very badly and very quickly that the Secretary was slow in making a decision. * * * The Secretary is not rapid in decisions involving the expenditure of funds. He hesitates until you prove it and clinch it, and sometimes reprove it and reclinch it. He consults everyone. * * * He was always thinking about justifying himself before your committees up here, and until you could convince him of the military necessity absolutely and beyond question, and also that he could justify the expenditures before Congress, you would not get him to approve an expenditure of any large amounts, and I often had to present the same subject many times before I got a favorable decision. I never had the Secretary refuse to listen to my arguments. I always tried to get a little new point of view on it and present it in a different light, and sometimes I thought I had proven the case beyond question a dozen times, and then I would try it on the thirteenth and I would get it.

ADMIRAL NIBLACK'S TESTIMONY.

Page 2417:

Admiral NIBLICK. The fleet was used for training men "which became the great problem for the Navy to solve during the first six months of the war."

Point 7:

That the Navy Department violated fundamental military principles in attempting to formulate war plans of operations without having sufficient knowledge of the whole situation.

Admiral Benson has taken the position that he alone was responsible for all operations, and that all decisions and plans had to be made or initiated by him. Witnesses agreed that the plans referred to in the testimony were drawn up by the department.

ADMIRAL BENSON'S TESTIMONY.

Page 4623:

Admiral BENSON. I would submit that Admiral Sims had no right to insist on the department varying from its policies and decisions. All he had to do was to give us the information, and it was the department's function to use that information to the best advantage, and that we did.

Page 4626:

Admiral BENSON. I think he gave us all the information we needed.

CAPT. PRATT'S TESTIMONY.

Pages 3858 to 3860:

Capt. PRATT. The department relied entirely on Admiral Sims. * * * The principal knowledge about matters on the other side came "almost entirely" from Sims. He was our representative there, and was sent for that purpose; * * * naturally, we depended upon him.

Page 3912: Capt. Pratt said Admiral Sims was not consulted about the handling of the first troop convoy. "He was perfectly willing to grant the point" that Sims should have been consulted in drawing up the plans for the first troop convoy.

Point 8:

That the department's representative with the allied admiralities was not supported during the most critical months of the war, either by the adequate personnel or by the adequate forces that could have been supplied.

This point was fully and freely admitted by the responsible officers in the department.

ADMIRAL BENSON'S TESTIMONY.

Page 4620:

Admiral BENSON. He [Sims] was not supplied with all the assistants that it would have been desirable for him to have had.

ADMIRAL BADGER'S TESTIMONY.

Page 2654: On April 5, 1917, the General Board recommended that officers be sent abroad to London and Paris. They gave a long list of the subjects on which data was desired, and suggested that 10 officers be sent to London and 6 to France.

Admiral BADGER. The General Board recommends this number of officers so that the work can be divided up and expedited, and believe that if this number of officers is detailed the information desired can be obtained in about two months.

Only 2 officers were sent and none more until four months later; then only 5 instead of the 16 recommended.

ADMIRAL M'KEAN'S TESTIMONY.

Page 4348:

Admiral McKEAN. There is no doubt that Admiral Sims should have had additional assistance, much more than he had as his duties expanded; but, likewise, there is no doubt that we were all short-handed.

CAPT. PRATT'S TESTIMONY.

Page 2870:

Capt. PRATT. Admiral Sims has a just complaint in this case. He should have been allowed more assistants, and earlier.

Page 2873:

Capt. PRATT. In my opinion Admiral Sims was not given an adequate staff early enough, and I think that should have been done at the expense of every other activity, if necessary.

Page 2882:

Capt. PRATT. The department made a mistake in not sending more officers to Sims. He should have had them. It was a stupendous task with which he was confronted. * * * An adequate staff was required from the beginning.

Page 3962:

Capt. PRATT. It seems to me that the facts pretty well speak for themselves; that if we had intended to immediately dispatch our destroyers abroad we could have had them in material shape, thoroughly manned to the minute. That is not an impossible thing to do, and if it was not done it is because steps were not taken to get them ready for it. It could have been done, I believe.

Page 3885:

Capt. Pratt agreed that in nearly every case Sims's recommendations were ultimately granted and personnel and forces requested sent. He did not know why delays occurred.

Capt. PRATT. I would have sent them over as soon as I could lay my hands on them. But the power of decision was not mine.

Point 9:

That the Navy Department violated fundamental military principles in dispersing forces away from the critical area in order to meet diversions of the enemy.

The departmental witnesses did not deny the fact but endeavored to defend the policy of keeping forces on the American coast, in the Azores, and elsewhere, remote from the critical area.

ADMIRAL BENSON'S TESTIMONY.

Page 4627:

Admiral BENSON. I acted on my own judgment in that matter, and I felt that the responsibility resting on me for our own national defense was first. That was my duty, to safeguard America's interest; that was my first duty, regardless of any other duty to humanity or anything else.

Page 4778:

Admiral BENSON. You always have one chance out of two, Mr. Chairman, to be right. I had to act on my judgment; I could not take chances; I had to view the situation and act according to my judgment and my natural inclination and my duty as I saw it to safeguard American interests and I did that; and whether I was right or wrong I should do the same thing again.

Page 4743H:

Senator PITTMAN. Your first thought was for the protection of our own coast and the preservation of our own Navy?

Admiral BENSON. Absolutely, sir. Mine was the responsibility. I had to exercise my judgment, and my first thought in the beginning, during, and always was to see first that our own coast and our own vessels and our own interests were safeguarded. Then when I was satisfied that that was done as far as I could with what we had then to give everything we had and to do everything we possibly could for the common cause.

CAPT PRATT'S TESTIMONY.

Page 2979:

Capt. PRATT. The Office of Operations realized full well that the areas mentioned were not vital areas * * * with one exception.

Point 10:

That the Navy Department in the first months of the war attempted the direction of details although 3,000 miles distant from the scene of active operations, where the situation was changing from day to day.

This was admitted and recognized as an error.

Point 12:

That the Navy Department, by controlling the operations and movements of certain forces within the war area, violated the fundamental military principle of unity of command.

This point was fully confirmed.

ADMIRAL BENSON'S TESTIMONY.

Page 4638:

Admiral BENSON. The department would have been derelict in its duty, in my opinion, even admitting they were all sound and right, to have adopted recommendations without due deliberation and careful consideration of all the conditions surrounding the situation * * *. Even if the recommendations were absolutely perfect, we would not have been justified in doing it.

Page 4630:

Admiral BENSON. I was willing to do it; but not until I had personally investigated. I did not have sufficient confidence in Admiral Sims's judgment and in his decisions to warrant me in relieving myself of that grave responsibility.

Page 4882:

Admiral BENSON. I think there is an exaggerated idea as to Admiral Sims's position that he occupied. I think the Allies understood that the operations in Europe were being directed from Washington.

There is a deliberate statement that the operations in Europe were being directed from Washington.

CAPT. PRATT'S TESTIMONY.

Page 2965:

Capt. PRATT. The department was wrong in interfering with the detailed movements of our forces at the front.

Page 3403:

Capt. PRATT. Operations at the front must be handled from London * * *. I think that in certain minor instances we may have interfered with him [Sims] in the details of ships' operations * * *. We issued direct orders to ships that were over there, when it would have been wiser to have turned them over to him bodily and said to him, "Order them where you please." Those, however, are mistakes that are liable to happen under all conditions, and I do not think they were very material.

Page 2873:

Capt. PRATT. If the admiral was handicapped by interference with the movement of his forces in contact with the enemy, this was wrong in principle. He has cited instances, but I have yet to note one which materially affected the outcome of the war.

Point 11:

That the Navy Department, in not clearly defining the responsibility and delegating authority to its representatives in Europe, failed to follow sound principles, common alike to the business and military professions.

It was clearly established that no clear definition of authority and responsibility was ever made by the department. The testimony reveals the fact that the witnesses still disagree materially as to the authority and duties of the department's representative in Europe.

ADMIRAL BENSON'S TESTIMONY.

Page 4672:

Admiral BENSON. I think there is an exaggerated idea as to Admiral Sims's position that he occupied. I think the Allies understood that the operations in Europe were being directed from Washington.

Page 4627:

Admiral BENSON. As I said, I was the responsible officer and I sized up the situation and made my decision.

Page 4630:

Admiral BENSON. I was willing to do it [that is, send forces abroad], but not until I had personally investigated. I did not have sufficient confidence in Admiral Sims's judgment and in his decision to warrant me of relieving myself of that grave responsibility.

CAPT. PRATT'S TESTIMONY.

Page 2995:

Capt. PRATT. It is the universal practice of the Navy for flag officers to make the recommendations for their subordinates. The final assignments are made by the Secretary in consultation with the Chief of Naval Operations. It is conducive to efficiency to associate those officers together whose relations are bound to be harmonious.

Capt. Pratt admitted that Admiral Sims was not consulted about the choice of his subordinates.

Point 13:

That the Navy Department failed to keep its representative abroad completely informed as to its plans affecting dispatch and disposition of forces in the war zone, and frequently reached decisions in such matters through information gained from sources other than its representative in the war zone.

The cases cited in the direct testimony were not questioned by any witnesses. The fact was admitted and an effort made to justify the department's negligence.

ADMIRAL BENSON'S TESTIMONY.

Page 4672:

Admiral BENSON. I think the Allies were kept informed of the development of any of our ideas and intentions. * * * While a good deal of the information may not have gone directly to Admiral Sims we satisfied ourselves that the allied naval authorities were kept sufficiently well informed with regard to the development of the situation.

Page 4674:

The CHAIRMAN. Would it not have been a good idea to have answered Admiral Sims's letter?

Admiral BENSON. It might have been and it might not have been * * * but as I was in charge of the whole affair and responsible for it, I exercised my discretion and my judgment in the matter. I felt that Admiral Sims was very urgent * * * and I did not consider that it was necessary to consume time and so on, always, to answer all of his repeated requests, etc., and I exercised my judgment and discretion in the matter, and feel that I was justified in doing it.

Page 4677:

Admiral BENSON. I feel that we were satisfied that information that the attachés of the Allies (in Washington) had was sufficient for the particular cases that happened to be under consideration.

It is hard to be moderate in commenting upon a statement like that. The Chief of Naval Operations says that they were satisfied that information that the attachés of the Allies in Washington were giving them was sufficient for the particular cases that happened to be under consideration. In other words, they were making decisions concerning my forces abroad upon information obtained from people who were not on the other side, who were here on particular business and who could not have been informed as to what the condition was on the other side, even in its general nature, much less the particular and local situations that we had

to deal with. If this investigation results in preventing a thing like that from ever happening again, it will have justified the \$200,000 or \$300,000 that it has cost.

Page 4678:

Admiral BENSON. I was the responsible party and it was my function, given me by act of Congress, to handle this matter, and I did it; and I must feel that the impression may exist that Admiral Sims was not given proper consideration, and I want to insist that he was my subordinate and it was my right and my duty to exercise my judgment in the way in which he was treated.

CAPT. PRATT'S TESTIMONY.

Page 2987:

Capt. PRATT. It was always the department's intention to keep Sims fully informed of all such matters. If we failed in this respect, it was of course an error and an omission. Errors happen naturally, but in the vital essentials he was informed.

Page 3861:

Capt. PRATT. He should have been informed of all departmental plans for operations abroad, but I do not think he was, and in that way I hold myself rather negligent.

Page 3883:

Capt. PRATT. Admiral Sims ought to have had this information; but those were strenuous times, and no doubt a lot of information he wanted and should have had he did not get.

Page 3862:

Capt. PRATT. Admiral Sims knows if he did not get answers. He knows whether he did get them or not. If Admiral Sims says, "I did not get an answer to this," why, that stands; he did not get it.

Page 3224:

Capt. PRATT. If there were doubts in Admiral Jellicoe's mind on the subject (of agreement of April 11), why didn't he make a direct request either through Admiral Sims to us or via his own representatives here, as to the exact nature of the reinforcements required in European waters beyond those asked for specifically by the commander in chief of the British forces in North Atlantic waters who had been directed by the Admiralty to confer with our department on this subject.

It was an oversight of Operations not to have informed Admiral Sims, but would it not also have been better for the Admiralty to have reinforced Admiral Sims's pleas in view of the agreement which they knew we had entered into?

Page 3844: Capt. Pratt did not know if any effort was made to get prompt and favorable action on Sims's recommendations.

Capt. PRATT. I tried personally very frequently, and would go with these cables, acting myself as a sort of nuisance, possibly, in the subject, to get this done, and I have no doubt that we were doing all this * * * but not being the actual executive I * * * should hate to say * * * that I know that every one of them was carried out.

Page 3856: Capt. Pratt would not state whether delays occurred or not.

Capt. PRATT. I did not always get a yes (to Sims's requests). * * * I paid attention to every one of his dispatches. * * * I could not say whether they were acted on or not. * * * In cases of plans or policy it is difficult for me to say whether everyone of them was answered. I know one thing—I can speak for myself. * * * I did not keep Admiral Sims as fully in touch as I ought.

CONCLUSIONS.

A review of the testimony given by the department witnesses called before this committee, at the request of the department, shows that less than 10 per cent of their testimony was concerned, either directly or indirectly, with the points raised in my letter of January 7, 1920, or with the evidence which I introduced in my testimony.

The Assistant Chief of Naval Operations, during the war, who was the only officer to comment in detail on my letter or my testimony, freely admitted that 80 per cent of the facts which I have referred to were true, though he differed in some cases from my interpretation of these facts.

Four of the department's witnesses were officers who held subordinate commands in Europe during the war. Each of these officers admitted that he knew nothing of the relations between myself and the department, or of what happened in the department itself, except by hearsay.

Thus, for example, Admiral Rodman stated (p. 2097):

I wish to reiterate that I have not one single document nor record of any kind, class, or description to substantiate my statement * * * and I am simply trying to lay before this committee my views in general of what the Navy accomplished.

He admitted that he knew "very little" about the administration of the naval forces abroad about convoys, the sending of anti-submarine craft, or anything else, "except what I read in the public press, I know very little about it." Referring to my testimony before this committee, Admiral Rodman said, "I have never read it."

Admiral Rodman also said (p. 2154):

While I was in the North Sea I dare say I knew less about what was going on than you gentlemen here at home who read the papers. I knew very little. As to the other branches of the service I had very little knowledge, except in a general way. * * * I had no particular knowledge. I was not in a position to have. * * * There was no occasion for me to know about these things. * * * It was no business of mine.

Still, gentlemen, those are the witnesses who have been offered to substantiate the department's contentions, or to attack me personally.

Admiral Wilson when asked if he knew of the relations between myself and the department said (p. 2203):

Not a word do I know about it.

Asked if he had read my testimony, Admiral Wilson said:

Not a word do I know about it.

When asked if he knew anything concerning the attitude taken by the department toward the forces in European waters, Admiral Wilson said that he knew—

Not a word of it. * * * My time was fully occupied in other ways.

Admiral Niblack admitted a similar ignorance of the matters brought into issue before this committee. After describing his own

services in the way and paying his tribute to the accomplishment of the Navy Admiral Niblack said (p. 2408) :

I know little of my own knowledge of what it is claimed the Navy did not do.

Similarly, Admiral Strauss stated that he had no knowledge of any part of the operations on the other side except those concerning the laying of the northern barrage; that he had no knowledge of his own concerning the work of the department during the war, or of the relations between the department and the forces in Europe.

Admiral Fletcher similarly stated that he had no knowledge as to what steps were actually taken by the Navy Department to meet the issues growing out of the war.

Page 2251 :

I was not very closely associated with the executive officers of the Navy Department charged with the duty of conducting the operations of the war. My views upon the questions involved will therefore be confined to that obtained from the viewpoint of a member of the General Board, but more particularly from the viewpoint of a member of the War Industries Board.

Admiral Fletcher knew nothing of the action taken on my recommendations, as his position was not close enough to Operations to enable him to know (p. 2284). He said (p. 2288) :

I am not posing as an expert [on the question of the submarine campaign]. My main testimony is from the industrial point of view. I am not familiar with all that phase of the problem [campaign against submarines]. I am only speaking in a general way.

Admiral Fletcher said that he was not familiar with the conditions as to personnel or material in the Navy in 1917 (p. 2298), nor did he know what ships were available for service with the fleet in 1917 (p. 2303), nor did he know just what the department did, although he believed that they had thrown themselves with all their energy into combatting the submarine menace (p. 2353).

Because of the confessed ignorance of these officers with the matters under discussion, their testimony has not been quoted in this discussion of the issues raised by my testimony.

The other witnesses who appeared before the committee, and who had specific knowledge of the facts which I had referred to in my letter of January 7, 1920, and in substantiation of which I introduced documentary evidence in my testimony before this committee, almost without exception agreed that the facts as I presented them are correct. Their testimony, in so far as it deals with the issues involved, is concerned largely with explaining, excusing, or justifying the action of the Navy Department in these cases, or was intended to dispute the conclusions which I drew as to the results of the delays and mistakes of the department.

The general attitude of the department's witnesses seems to be not that of disagreement with my testimony but one of resentment that such mistakes should have been brought to the public notice.

Thus, Admiral Wilson said (p. 2183) :

I have had no time or desire to bring up things of the past. I well know that the lessons to be learned from the war will be studied by most competent officers in the Division of Operations and the General Board, whose duties are to study these lessons and to apply them to the future plans of the Navy.

Page 2200 :

Instead of finding any fault or any mistakes made by the United States on the breaking out of war, I feel proud and I feel sure it was onto its job.

Note that the previous testimony of this witness is to the effect that they were not in the position to know anything about their subsequent testimony.

Admiral Rodman said, page 2080 :

I am here purely from a sense of duty to defend the good name of the Navy. I shall make my statement for this purpose alone.

Having previous to this shown that he did not know anything about the issues in point.

The CHAIRMAN. I want to state that it does not seem to me that the good name of the Navy is at issue. * * * All of us want to defend it. * * * We are here because we believe that * * * certain faults have been developed in the organization of the Navy and what we want to do is to develop something constructive.

Admiral RODMAN. I have recommendations right along those lines.

Page 2082 :

I am here solely, as far as I know, to defend its deservedly good name.

Page 2089 :

Another deep impression that is made upon my mind is that * * * there has been laid bare before this committee every possible point that is derogatory to the Navy, without stating the thousand and one good ones which should redound to its credit.

Admiral Rodman also made the following statements :

Page 2082 :

Had his letter been less indiscreet * * * had it been couched in moderate terms, such as are usually used in official correspondence, had it been less antagonistic * * * doubtless good would have come from it.

It was hardly necessary to comment, and my letter was couched in extremely moderate terms, and in the official language usually used on such occasions, and that there was nothing whatever antagonistic about it.

Another quotation, page 2089 :

This whole affair, to my mind, savors of ill-advised criticism against the Navy. * * * Let us hope that some good will come of it, and I think it will.

Page 2095 :

Unqualifiedly mistakes were made, as there are in every great and highly technical enterprise.

Page 2096 :

I regret exceedingly for the Navy's reputation that it was through his (Sims's) instrumentality, directly or indirectly, that this investigation was instituted, with its resultant publicity, but I hope and believe that ultimate good may be obtained.

The Navy doubtless made mistakes during the war, but the methods and means which have been employed in attacking it will by necessity leave prejudice in the minds of those not familiar with the Navy and its organization * * *.

All these conclusions as to the responsibility for publicity have been fully answered and substantiated by official documents.

Admiral Niblack said (p. 2048) :

I am not here to defend any person, but am defending the United States Navy, which is now under the fire not of its enemies but of its friends. From my own personal experience I can bear testimony to the great things which were accomplished by our Navy from the very outbreak of hostilities until the war was won, though I know little of my own knowledge of what it is claimed the Navy Department did not do.

I will have occasion later to go into that whole matter of the attack on the Navy.

Admiral Badger, in the same connection, said the following (p. 2661) :

The department fully understood the situation at all times. The action that it took is now a matter under discussion. * * * It seems to me to be a waste of time to discuss at this late date the differences of opinion as to what should or should not have been done in the early days of the war, particularly as I can see no possible good to the Navy or the country.

Thus, in summarizing, it seems clear that the evidence which has been introduced by the various department witnesses fully substantiates the points brought out in my letter of January 7, 1920, and in my testimony before this committee. The testimony of the witnesses who were called at the request of the department has been confined, in so far as it dealt with these issues at all, first, to explaining and justifying the department's mistakes and delays; second, to disputing the conclusions which I drew regarding the results of these mistakes and delays; and, third, the expression of resentment that these things should have been brought to the public notice, and to attacks upon me for what they considered to have been my responsibility for this publicity.

THE ACHIEVEMENTS OF THE UNITED STATES NAVY IN THE WAR—PRAISE OF THE NAVY BY DEPARTMENTAL WITNESSES.

In reviewing the testimony that has been presented to this committee by the department's witnesses, the most superficial examination shows that the greater part of both the testimony and documents presented has no possible bearing upon the matters under investigation. For example, witness after witness has come before you to tell of the various achievements accomplished by the Navy in the war.

Admiral Rodman told you of the splendid work of our battleship division in the Grand Fleet.

Admiral Wilson has told you how efficient were the services of the forces under his command at Gibraltar and on the French coast. He also called attention to the very great part which the American anti-submarine forces in European waters played in putting down the submarine menace off the French coast, and in making possible the safe transport across the Atlantic of 2,000,000 troops, an unprecedented feat in the history of warfare.

Admiral Niblack has told you a great deal of how splendidly the personnel and ships under his command cooperated with the Allies in the Mediterranean, in handling the convoy operations to and from the Straits of Gibraltar.

Admiral Strauss has given you in detail the magnificent story of the forces under his command, who succeeded under great difficul-

ties in planting a mine barrage which, as an accomplishment, stands without parallel in the history of mine warfare. He has told you also something of the splendid work done by our Bureau of Ordnance in the development of a mine that would make possible the laying of the barrage, and of the supply of that mine in large quantities and in a remarkably short time.

Admiral Fletcher gave you a sketch of the tremendously valuable work of the War Industries Board on which he served, and told how they coordinated the industrial resources of the country so as to facilitate the putting forth of America's military effort. He also dealt with the efforts of the General Board to provide the Navy with plans and policies, and told you of the other long and continuous labors of the General Board.

Admiral Badger, the present head of the General Board, also dealt with the work of this body, and presented in detail an account of its activities before and during the war, emphasizing what splendid service it rendered, by endeavoring to provide the Navy Department with plans which would make possible effective action in case of war.

Capt. Pratt, in the course of the 2,000 pages of the record which his testimony occupies, included hundreds of documents to show with what patriotic zeal and what unsparing energy the officers with whom he was immediately associated in the Office of Operations discharged the duties confided to them. He has given you a full and detailed story of the many magnificent achievements of these officers in the department.

Admiral McKean has similarly described the activities of the Division of Material of the Office of Operations. He has told you how he endeavored continuously for two years before the war to get the Navy in a condition for war.

Admiral Benson similarly has spoken of the unprecedented expansion of the Navy and of the great things that the Navy was able to achieve in the war.

Incidentally none of them ever praised the Navy as much as I have, as I will show you later.

FALSENESS OF CHARGE THAT I HAVE BELITTLED THE NAVY'S WAR SERVICE.

It would be hard to understand why the department's witnesses considered it necessary to introduce such testimony, unless it be assumed they were laboring under a profound misapprehension, either as to my own views upon this subject or as to the purpose of this investigation. Unfortunately, an impression has been conveyed that I have endeavored to belittle the efforts of the American Navy in the war. All sorts of absurd extraneous matter has been injected into this investigation in the endeavor to strengthen this unfounded imputation. I would therefore, like to deal briefly with this question.

The first point to be emphasized is, of course, that this investigation was not called for the purpose of discovering or estimating the full extent of the achievements of the Navy in the war, but rather in the endeavor to discover whether or not the Navy Department, in its general direction of the Navy's war activities, committed certain military errors, and was responsible for certain unnecessary and very

grave delays which postponed the active intervention of our Navy in the war, rendered this intervention less effective than it would otherwise have been, and thereby resulted in an unnecessary prolongation of the war. I have deliberately confined my testimony before this committee to the subjects dealt with in my letter of January 7, 1920, which, as I understand the authority under which the committee is acting, are the sole matters to be dealt with.

Elsewhere, and especially in a series of articles which have been published in a monthly magazine, I have told the story of our Navy's accomplishments in European waters during the war. In these articles I have expressed fully my appreciation of the services which the Navy rendered to the country and to the allied cause. I have described the efficiency which characterized the personnel who served under my command, and to the best of my ability, I have attempted to describe, and pay tribute to, their devoted, enthusiastic and efficient services during the war. I have not considered it to be necessary or appropriate to burden the records of this committee with the hundreds of pages which would be required to describe in full everything which the forces under my command achieved in the war against the German submarine. I have also recorded officially, in a great many documents, my admiration for our splendid personnel, both officers and men. In fact, there is no person, in and out of the service, who has paid them such sincere and heartfelt tribute. Let me refer you, for example, to the statement which I made in beginning my testimony before this committee, in March, 1920.

For example, I said [reading]:

I find that I am being represented in many quarters as initiating an attack upon the part that the Navy played in the war, or, stated more briefly, that my object is to belittle the efforts of the Navy in the war.

Therefore, let me most clearly state a few salient facts:

First. I have raised no question whatever as to the efficiency of our naval operations in the war when viewed in their entirety, and without regard to the time element.

Second. Speaking of the Navy itself, that is, its personnel and ships, apart from the organization which directed it, I am in the fullest accord with the country in being unable adequately to express my admiration for its work. That work will grow larger and larger in public estimation as the facts slowly come out. I am proud to say, without fear of contradiction, that, in so far as the Navy was permitted by the machinery which controlled and directed it, it not only lived up to all traditions of the past, but, as a matter of fact, it excelled its former traditions. Without any disparagement of actual results accomplished, I believe that its greatest accomplishment was the example set and the spirit which it infused into the naval war, through its exhibitions of Americanism. For example, in its irrepressible enthusiasm, its indomitable initiative and versatility, its absolute refusal to be balked by obstacles, real or imaginary, its ruthless disregard of precedents, and, above all, in its absolute confidence in victory.

Similarly, in concluding my previous testimony before this committee, I said [reading]:

NAVY'S SPLENDID ACHIEVEMENTS IN THE WAR WERE IN SPITE OF DELAYS, INACTION, AND VIOLATION OF MILITARY PRINCIPLES BY THE HIGH COMMAND IN FIRST MONTHS OF WAR.

The statistical tables and the memorandums which I have just referred to will give a sufficiently comprehensive idea of the growth and importance to the Navy Department of their advance headquarters in Europe, after they had once adopted the policy which they had announced in July, 1917, of cooperating whole-heartedly with the Allies. Of course, when once the available naval

forces for operations afloat and a sufficient number of capable officers to administer these forces—to control their operations and to coordinate our activities with those of the Allies—were available, there could no longer be any question of the effectiveness of our help. The Allies themselves have repeatedly assured us of the vital services rendered by our Navy to the allied cause, and we of the Navy can take pride in the record that was achieved. Great as this record was, I think I have said enough to convince you that it would have been infinitely more effective if the policies ultimately adopted by the Navy, and which can be found set forth in the Secretary of the Navy's annual report of 1918, had been put into effect from the moment when we entered the war, instead of after dangerous delays of many months. Furthermore, it seems to me that these achievements of the Navy should gain greater importance in the public mind when it is realized, as had not been generally realized outside of the service, they were accomplished not because of an equal amount of efficiency in the higher command which directed them, but rather in spite of long delays, inaction, and violations of fundamental military principles committed by the high command in the first months of the war. In other words, the personnel of our Navy afloat, in accomplishing the mission assigned them, had to struggle with the enemy and also endure the handicap of a vacillating policy and of misdirection such as I have repeatedly pointed out in the cases which I have reviewed before this committee.

Almost the last words which I addressed to you on that occasion were the following [reading]:

My testimony has been devoted almost entirely to pointing out defects in the administration of the Navy in the first few months of the war. This does not mean that I have been insensible to the splendid work done by the Navy at large or by the bureaus and other offices of the Navy Department. I have at different times in letters to the chiefs of bureaus of the Navy Department and to other officials, including the Chief of Naval Operations, expressed my personal satisfaction at the splendid way in which many of my requests had been met, particularly during the latter part of the war.

Taking the service as a whole, I have the most profound admiration for the manner in which the officers and men of the Regular Navy, Naval Militia, and Reserve Force carried on their duties in this war, and have expressed this admiration in a series of articles now being published. Not only from the war zone, where events were constantly before me, but from home and remote areas, reports reached me which showed beyond any doubt what a magnificent body of officers and men we had in the Navy. You may be sure, gentlemen, that the Navy, if loyally and properly supported and directed, may be counted upon to maintain the finest traditions of the service.

It is a source of the greatest pleasure to testify to the pride and gratitude I feel for the manner in which the Naval Militia and the Reserves (in many instances at great personal sacrifices) came to the aid and support of the Regular Navy. Without their invaluable help, much of the work done by the Navy in this war could not have been undertaken. It would require volumes to tell of the hundreds of ways in which their splendid services made success possible. The outstanding feature of their service was the cheerful and loyal support which they gave to the Regular Navy at all times and under all conditions. I can not commend too highly their services to the Nation.

It is furthermore a great pleasure and satisfaction to me to be able to testify to the magnificent way in which the many enterprises were undertaken and pushed to a successful completion by the united efforts of the bureaus of the Navy Department, and the naval personnel engaged in the operations. I can not pretend to enumerate completely the operations of this nature which contributed to the winning of the war. I may mention, as typical examples, the northern barrage, the railway batteries, the transport of troops, and the training of officers and men in the ships of the Atlantic Fleet that remained in home waters.

In view of these statements of mine, which are but inadequate expressions of my real sentiments with regard to the war record and achievements of the service, I find it difficult to understand how any person can find justification for the insinuations that have been made to the effect that I have belittled the Navy's efforts in

wrong impressions. For example, it is apparently difficult for some people in America, as in every other country, to understand that in inviting attention to faults, errors, and defects with a view to correcting these, and preventing a repetition of similar errors, no reflection of any kind is intended, or is made, upon the achievements and successful accomplishments of the Navy as a whole. The mere fact that I have not burdened the record with lengthy and detailed praises of the various phases of our naval activities can hardly be interpreted as meaning that I hereby belittle, much less attack, the Navy's splendid record.

THE IMPORTANCE OF LEARNING FROM EXPERIENCE AND PROFITING BY PAST ERRORS.

There is unfortunately an unwise tendency to ignore or conceal our own errors and mistakes. We at times even seem to consider criticism, however well founded, to be unpatriotic, and twist and pervert such criticism until the impression left in the public mind is that of nothing less than a deliberate assault upon the things of which we Americans have a right to be most proud. To my mind, however, any public official is failing in his trust if he attempts, for personal or other motives, to deny or conceal errors and mistakes which may have a serious bearing upon our future safety. In my opinion it is the obvious duty of an officer, and an obligation which he owes to his service and his country, to invite the attention of his superiors to those mistakes and errors in past operations which, if passed unnoticed, might prove disastrous in future.

A disease can not be cured by ignoring it. Past mistakes, like diseases, are unpleasant things to contemplate. We naturally don't like to have them in our families, but obviously the only safe way is to attempt frankly and honestly to study them, analyze them, and administer those remedies to the causes discovered which the experience of the past have shown to be effective. That has been my sole purpose in the testimony which I have presented.

It is a very natural and a very human impulse, in the pride of one's accomplishments, to desire to forget one's errors; and, if this were merely a matter of personal interests or if it were merely a question of national pride, there would be no necessity of inviting attention to truths which are necessarily so exceedingly unpalatable, if one may judge from the tone of the testimony which has recently been given before this committee. But as a Nation we have the national safety to consider. Our only guide in facing the unknown events of the future are the lessons that we can draw from the past. Our surest means of preparing to meet the dangers we may be called upon to face is to study carefully the immutable principles which underlie warfare; the application of these principles under war conditions; and to observe, conscientiously and calmly, the result of past violation of these principles. Only thus can we make our service more effective in the future and prevent the necessity of enduring again

the dangerous and what might, under less favorable circumstances, have been the fatal consequences of such violations of these principles in warfare, as I believe this investigation has established.

SUCCESS IN WAR DOES NOT PROVE THAT NO ERRORS WERE MADE BY THE VICTORS.

Closely associated with the point that I have just referred to, our disinclination to admit our own mistakes—is another contention which is always raised after a war has been won. The proverb that nothing succeeds like success is apt to mislead those who are too blindly optimistic and self-confident. Nothing would be more dangerous, however, than to assume that because we were eventually successful, everything we did was necessarily right.

On many occasions success has been obtained and wars have been won, not because no mistakes were committed, but in spite of the mistakes. The mere fact that the war was won does not prove that we did not commit very dangerous errors. The obvious statement that we, in association with the Allies, were victorious over Germany in the Great War does not in the slightest degree prove that in a future war under conditions less favorable to us, a repetition of the mistakes which, in 1917, had happily no fatal consequences, would not result in a national disaster.

WHY MISTAKES AND INEFFICIENCY OF THE NAVY DEPARTMENT SHOULD BE CAREFULLY CONSIDERED.

While not in the least desiring to imply any criticism of our naval efforts which made possible the winning of the war, I considered it my duty to invite attention to the mistakes which postponed victory and resulted in unnecessary losses of blood and treasure. Your attention has been repeatedly called to the fact that in warfare time becomes one of the most essential elements of strategy. A few months' delay, in times of peace, or in a war where we were immune from enemy attack during those months, may seem to have no grave consequences. A military service, however, which is so constituted that it can not go to war and effectively operate, without a delay of many months, which has an organization which must be remade under the stress of war conditions in order to handle military operations, is fundamentally wrong. The same delays under other circumstances would be disastrous, as the history of warfare so repeatedly demonstrates.

If it is possible, therefore, by a study of the causes of those delays and by an analysis of the defects in the organization responsible for them to avoid their repetition in the future, it is, obviously, not only wise but imperative that a careful study of these causes should be made. The witnesses who have appeared before you, while insisting that the Navy fought well in the war, which nobody has ever denied, have also insisted that the Navy Department's organization is inadequate and that we were not able to go to war with our full forces within the time that military success requires. It is for this reason that in spite of the fact that we were successful in the war, in spite of the fact that the Navy added new laurels to its already proud

tradition, it seems to me not only wise but imperative that we should take into account the errors which were committed and endeavor to provide such a remedy for the causes as to prevent their repetition as far as it is humanely possible to do so.

TESTIMONY IN PRAISE OF NAVY'S ACHIEVEMENTS HAS NO BEARING ON
ISSUES UNDER INVESTIGATION.

From the standpoint of this committee, therefore, the testimony which has been introduced to show how splendidly the various parts of the naval service operated, to show how efficient were the services of various individual officers, is entirely beside the point. It is to be regretted that the issues should have been so obscured and so much testimony introduced in the endeavor on the part of the witnesses to answer criticisms which they wrongly believed had been made against their personal activities or against the efficiency of the service to which they belonged.

A regrettable failure to realize the vital importance of the issues involved has doubtless been responsible for the introduction of this great mass of testimony. It has absolutely no bearing upon the issues before this committee or upon the specific questions as to whether or not the Navy Department did commit errors, was responsible for serious delays, and violated military principles in the first months of the war; and as to how the causes of these errors, delays, and violations can be eradicated and their repetition in the future prevented. I shall, therefore, make no further reference to this great mass of testimony.

May I say here that I regret that there is a certain amount of necessary repetition in this statement because of the short time that I have had to prepare it.

REVIEW OF THE ACTIVITIES OF THE NAVY DEPARTMENT, 1913 TO 1917—
DEPARTMENTAL WITNESSES' TESTIMONY REVEALS INEFFICIENT CON-
DUCT OF ADMINISTRATION OF THE NAVY DEPARTMENT.

I have thought it necessary to go into that on account of what appears to be the possible result of an investigation of this kind.

The quotations which have been cited from the testimony of the officers called before this committee at the request of the Secretary of the Navy have shown clearly that the Navy Department's organization in 1917 was not adequate for the carrying on of the war; that plans to meet the special situation that arose had not been formulated, and that at least during the first part of the war no such plans were drawn up; and, finally, that the Navy was not in a condition either as regards personnel or material to meet the situation created by our entry into the war in 1917 as efficiently as it should have done.

In order properly to understand the significance of these conditions it seems advisable briefly to review in a general way the whole of the activities of the Navy Department during the administration of the present Secretary of the Navy in order that the proper settings can be obtained for the statements which have been quoted. I therefore desire to give you a brief review of the Navy Department's activities in these years as it has been revealed by the testimony of the wit-

nesses called by the department. I call particular attention to that phrase. I might further say that throughout this whole long statement that I am making now I am not using any evidence at all except the evidence that was given by the department's own witnesses, with only an incidental reference occasionally to the witnesses that were called at my request.

Opposition of the Secretary of the Navy to an efficient organization of the Navy Department.—Since the time of the Spanish War the officers of the Navy have been in almost unanimous agreement that the organization of the department was not adequate for the conduct of war operations and that, while its machinery functioned after a fashion in times of peace, it was not of the type required by any military organization and would not be able to stand the test of any great war. President Roosevelt and the Secretaries of the Navy who served under him ultimately came to recognize this condition, and at the instance of President Roosevelt a commission was formed, presided over by Justice Moody, of the Supreme Court, composed of a number of leading naval officers and other experts, including Admiral Mahan, to consider the reorganization of the Navy Department in order to insure the military efficiency of the Navy. President Roosevelt realized keenly this necessity, as is illustrated by an incident which he often related:

At the time of the Spanish War, after the outbreak of hostilities, one of the leading officials in the War Department was thrown into a condition of great distress because of the outbreak of war, and in explanation of his distress he said:

Just when my department had gotten to going nicely along came the war and upset everything.

Our experience in the Spanish War should have made this perfectly clear.

As a result of the report of the Moody Board, the department was partially reorganized under the administration of Secretary von Meyer. The offices of aids for operations, material, personnel, and inspections were created to coordinate the activities of the various bureaus and divisions of the Navy Department. But still no general concentration of military authority and of responsibility for preparation for war and for the conduct of operations was provided for, although this was recommended by the Mahan-Moody Board, and although all naval authorities agreed that this should be done by the appointment of one naval officer, who would be given authority over and held responsible, under the Secretary of the Navy, for the military side of the department; that is, preparation for war, the formulation of war plans, and the direction of operations.

When the present Secretary of the Navy came into power he was from the first inclined to view with disfavor any such proposal, in the belief that it would diminish his own authority and hamper his activities in the control of the Navy. His naval advisors from the first urged upon him the advisability of concentrating the responsibility for the military side of the Navy's activities in the hands of a responsible naval adviser, but the Secretary consistently rejected this idea.

In his testimony before this committee Admiral McKean, for example, stated, page 3415, that when the Secretary visited the Naval

War College in May or June, 1913, he asked the officers there for recommendations, stating that he could get no clear idea in Washington of what was needed. He went on:

What I wish you would tell me is the first and most important single act which I can perform to most help the Navy.

I may say that I happened to be at the War College at that time and heard all this conversation. According to his own statement, Admiral McKean then interrupted me as I started to make a suggestion and said:

Pardon me, Mr. Secretary. You do not want to appoint a board. The Navy Department's cellars are full of boards' reports never acted upon. As I understand it, you wish to know what single executive act of yours will do most good to the Navy. My recommendation is that you send a wire to the aid for Operations informing him that hereafter he, the aid for Operations, will be your sole military adviser, and that his duties will be to coordinate the activities of the other aids, for Personnel, Matériel, and Inspection, in the same way that they coordinate the activities of the various bureaus and divisions under each of them.

This recommendation met the approval of those officers present, but the Secretary demurred; said he could not do that without grave consideration, as he feared he would be giving up too much of his authority and avoiding what should be his responsibilities. After some discussion in an attempt to show the Secretary that he was not giving up any authority and that he could not possibly avoid his responsibility, his recommendation was passed over.

In nearly all of his annual reports since that time the Secretary of the Navy has repeatedly emphasized his objection to any such step as that which Admiral McKean pointed out in 1913 to be the single act of the Secretary of the Navy which would do the most good to the Navy.

Results of lack of responsible technical advice during present administration of the Navy Department.—Under the present administration the Secretary himself has continued to be the sole coordinating agency of the various bureaus and divisions of the Navy Department. The chiefs of bureaus still continued to be responsible only to the Secretary. No means was provided for coordinating the activities of the various bureaus in the preparation and maintenance of the fleet, except for such sporadical uncertain coordination as the Secretary himself could provide. It is, course, readily apparent that no civilian could possibly possess a sufficient technical knowledge of naval and military matters to direct or coordinate intelligently the operations of the various branches of the military service, and it must be equally clearly recognized that any Secretary must be guided very largely in his decisions and in his coordinating activities by the advice and assistance of naval officers. The only question at issue consequently is whether this advice shall be responsible advice, or whether the Secretary shall be forced to depend upon the often irresponsible opinions, however sincerely held, of differing naval officers.

Capt. Pratt brought this point out very clearly in his testimony. In answer to questions of Senator Trammell as to whether or not the Secretary did not make use of such naval advisers and did not co-operate with the naval officers, Admirals Badger and McKean, as well as Capt. Pratt, referred to the case in 1915, when the Secretary insisted that the General Board withdraw its recommendation for an increase of 19,600 men in the personnel of the Navy, and later ob-

tained from the Chief of the Bureau of Navigation an estimate showing that at that time the Navy had some hundreds of men more than were actually needed instead of being 20,000 short. The testimony has clearly shown that the General Board was right, because their estimate was based upon a definite plan and took into account the future needs of the Navy, while that of Admiral Blue provided only for the manning with partial or "peace" complements of such vessels as were actually in commission.

Capt. Pratt said that the Secretary was not to be blamed for accepting advice from naval officers, but there are two quotations from Capt. Pratt, which I submit for the record. If the committee will excuse me, I will not read them.

(The quotations here referred to are printed in the record, as follows:)

That is just where we kick. He accepted the advice of Admiral Blue, and almost every naval man thought that Blue was dead wrong. * * * I hold Blue very responsible for the advice he gave, * * * but the system is wrong. Where you can cooperate first with one naval officer then with another naval officer and another chief of bureau, and get just as many different ideas as you talk to men that ought to be coordinated under the head who is charged with the policy and plans, so that you do not get this diffusion of ideas, but do get one concentrated effort.

Again, Capt. Pratt said (p. 3999):

As the system of organization stands, we have not any actual military head who is responsible. The responsibility in a degree rests upon the Secretary, because he is the head. * * * The Secretary, no matter how wise a man he may be in his own particular affairs, must accept the advice of his naval counselors; but if somebody is not charged with the responsibility for the advice he gives and the head man does not know the details, the result is an indifferent state of affairs, which, to my mind, is responsible largely for any unsatisfactory condition which we might say existed.

THE OFFICE OF OPERATIONS CREATED AGAINST OPPOSITION OF THE SECRETARY.

After the Great War began in 1914, the necessity for having a military head for naval operations was even more strongly felt than ever before, but the Secretary still insistently opposed any effort in this direction.

Finally, as the testimony has shown, a number of the most capable and conscientious officers of the Navy entered into what might be called a conspiracy—and the Secretary has himself used this term—with the Hon. Richmond P. Hobson, a Member of Congress from Alabama, an ardent friend and supporter of the Navy's best interests, and obtained the passage through Congress of a section in the act of March 3, 1915, creating the Office of Naval Operations, under the Chief of Naval Operations, who was charged with the preparation of plans for war, and, in the original draft of the bill, with responsibility for these plans and their execution. At the instance of the Secretary of the Navy, however, the word "responsible" was eliminated from the act, and thereby much of the effectiveness of the measure was lost.

As Admiral McKean pointed out in his testimony (p. 3418):

This essential step was, I believe, made law under the urgency of the Hon. Richmond P. Hobson, Member of Congress from Alabama. * * * It gave to

The Office of Naval Operations was thereby created, and Admiral Benson was appointed the first Chief of Naval Operations. Under his direction and guidance an earnest and sincere endeavor was made to keep the Navy in a condition of readiness for war with the means and within the limitations provided by the Secretary of the Navy, by circumstances, and by congressional appropriations.

Admiral Badger, Admiral McKean, Capt. Pratt, and Admiral Benson have all testified in considerable detail as to the efforts which they, acting individually and as members of the General Board and of the Office of Operations, made to get things done, so as to prepare the Navy for war. Admiral Benson has told you that he believed the Navy should always be prepared for war and that this had been his guiding consideration. These officers have testified that without the Office of Operations the department would have been in absolute chaos at the beginning of the war in 1917, and that, imperfect as was the organization of the department at that time from a military point of view, it was only the work of the Office of Operations and the voluntary cooperation—and I accentuate the word “voluntary”—which it obtained from the various bureaus and divisions of the department that made possible such effort as the Navy Department did succeed in putting forth in the early months of the war.

The limitations of the activities of the Office of Operations had made it impossible, however, to obtain the maximum of efficiency. The Chief of Naval Operations was given no authority over the bureaus, even in matters concerning the preparation for war. He was not given the responsibility of preparing plans for war, and the General Board continued still, practically speaking, to be the only part of the Navy Department which concerned itself to any great degree with war plans.

THE WAR EFFORTS OF THE NAVY HANDICAPPED BY INADEQUATE AND
INEFFICIENT ORGANIZATION OF THE NAVY DEPARTMENT.

As Capt. Pratt testified (p. 3411) at the time of our entrance into the war every detail of operations had still to be approved by the Secretary.

When we started in this war matters of detail did have to be arranged through the Secretary. * * * but later on we used to handle operations a little but more directly. The Secretary could not attend to all such matters of detail. It would be impossible.

Again, Capt. Pratt said (p. 2871) that when we entered the war—note particularly that after the war started the assistant Chief of Operations made this statement:

The reorganization and expansion of the Office of Operations and of the bureaus had to be undertaken; the coordination of the bureaus with this office had to be developed; the methods of administration had to be divested of their prewar conservatism; the red tape abolished and more authority given to subordinates in matters of detail. * * * (p. 2872). The organization of the

various bodies which acted as the cooperating agents between the Navy Department and the other departments and with the allied representatives on this side of the water had to be undertaken.

That is to say, had to be undertaken after the war was declared. Now, an organization that has to be reorganized, reformed, and divested of its inconveniences after war is declared is a danger to the country.

Again, in referring to the work of the Office of Operations in the early months of the war, Capt. Pratt said (p. 3832) :

Thanks to the voluntary and hearty cooperation of every distinct departmental organization, including the Secretary, the Navy was able to pull itself together and to work exceedingly well in the war. If any lack of preparation existed within the naval service prior to our entry into the war—if any lack of harmony existed then, or exists now, within our Navy—it can be laid more justly to the system of organization the department labors under than upon the shoulders of any individual.

I am perfectly willing to subscribe to that. If the outcome of all this business is a business organization, just a plain business organization of the Navy Department, you will not put the strain on the naval officers in another war that you did in this.

Again, Capt. Pratt said (p. 3937) :

I would have liked nothing better than to have had a thoroughly organized plan for the department. It would have made the work very much easier.

Page 3039 :

I think the organization is not fitted to conduct war efficiently.

Capt. Pratt (p. 3940) also stated that it was not a wise step on the part of the present Secretary to destroy and discard the Mahan-Moody report and return to the bureau system, with only an aid for operations, with no authority to coordinate the work of the bureaus.

Page 3941 :

It is a return to an older order of things, which was not as wise.

The results of this failure to establish within the department such an organization, with such a delegation of authority and responsibility as to conduce to military efficiency, was considered by practically all the witnesses as one of the chief causes responsible for the unpreparedness of the Navy in 1917 and for the delays of the department in getting immediately and actively into the war. Many things were done between 1915 and 1917 to obtain a greater readiness for war on the part of the Navy, but the execution of these measures were individual and sporadic instances of activities by the Office of Operations or by various individual officers in the department, and were not part of any general plan, so far as the testimony has shown.

CREDIT DUE TO INDIVIDUAL OFFICERS IN THE DEPARTMENT FOR RESULTS ACHIEVED IN SPITE OF DEPARTMENTAL INDECISION AND DELAYS.

Too much can not be said in praise of the efficiency and devotion with which the officers who served in the department, as a rule, discharged the duties assigned to them. Admiral McKean and Admiral Badger have told you at great length of their own efforts, first, in improving the matériel condition of the vessels of the Navy and, second, in attempting to plan for the development and possible operations of the Navy in the future. Admiral Badger submitted a long

list of recommendations from the General Board, which apparently have been introduced in testimony as being the plans of the department, although Admiral Badger clearly showed that in the great majority of cases the General Board had no knowledge of whether any action had been taken on any of these recommendations. In a few cases some of the recommendations had been officially adopted and put into effect. In some cases they had been officially disapproved. In the majority of instances they had been officially ignored.

THE FAILURE OF THE SECRETARY TO ADMIT OR CONSIDER POSSIBILITY OF WAR OR TO PREPARE NAVY FOR WAR.

The various witnesses called by the department have been almost all in agreement in stating that as a result of the peculiar interpretation of the policy of neutrality which the Secretary considered it his duty to enforce in the Navy Department no adequate steps were taken between 1914 and 1917 to prepare the Navy for a possible war with Germany. According to these witnesses the words "war" or "preparedness for war" were practically never used by the Secretary or his advisers. The Secretary displayed very great interest in the expenditure of funds from the point of view of economy alone, often without regard to military considerations, in the peace-time activities of the Navy, in providing for a new and larger building program, in looking out for the welfare of enlisted men, but he consistently rejected or failed to act upon recommendations which were made to him to prepare the Navy for war, to draw up adequate and officially approved plans, or to provide for the increase of personnel necessary for the war complements of the vessels of the Navy or to insure the carrying into effect of definite plans intended to prepare the Navy for immediate and effective intervention in the war, should war come. These officers also testified that from the time of the sinking of the *Lusitania* on May 7, 1915, they believed that sooner or later the United States would be compelled to enter the war. There is no record, however, of any action whatever having been taken to prepare the Navy, especially for such an entrance into the war, until after the breach of diplomatic relations February, 1917. No official steps to meet the peculiar conditions of naval warfare in the Great War were taken until March, 1917.

Some officers who testified concerning this defended this action by stating that such preparations would have been an overt act on the part of this Government. Such a contention must appear quite untenable, however, as even those witnesses admitted that we alone are the judges as to what ships we should build, as to how we shall man them, and as to the state of readiness for war in which they shall be maintained, and that so long as the Navy respects the state of neutrality no foreign power can rightfully consider any development of the Navy to be an overt act, whatever it may think of our intentions.

The fact remains, as all these witnesses testified, that little or nothing was done between 1914 and 1917 to prepare the Navy for war beyond what would have been done in the normal course of events. So far as the policy of the Secretary was concerned, the European war and the possibility of our being drawn into it was officially ig-

nored. The result inevitably was, as Admiral McKean, Admiral Badger, Admiral Benson, and Capt. Pratt have testified, that the Navy as a whole was not in a state of matériel readiness for war in 1917, that it lacked many essential types of ships, and that its personnel was hopelessly inadequate, so inadequate, indeed, that Admiral Niblack has stated to you that the chief problem of the Navy in the first six months of the war was to train men rather than to fight.

THE NAVY ENTERED THE WAR WITHOUT DEFINITE PLANS TO MEET
EXISTING WAR CONDITIONS.

The same condition existed with regard to the formulation of plans to govern the possible activities of the Navy in the event of war. All these witnesses have called your attention to the base plan of the General Board for a war in the Atlantic. Such a base plan, of course, existed, and was, doubtless, as those witnesses testified, kept up to date from time to time. This base plan related, however, not to any action on our part in the present war, but rather to the general strategical situation in the Atlantic and the steps which the Navy would have taken to mobilize, and the general strategy that would have been followed in event of our being engaged single handed in war against a European power. This plan was drawn up on the basis of the assumption that the primary mission of our capital fleet would be to meet and engage the enemy capital ships, probably in the western Atlantic. This plan provided in detail for the organization of the fleets, for the establishment of bases, communications, supply services, etc., but based altogether on the assumption already stated that we would be engaged alone in a war with a European power and that our Navy would have to meet alone the main fighting force of the enemy. All of the witnesses agreed that this base plan was not referred to or used in the present war. Nor has any evidence been presented to show that this base plan of the General Board was ever officially approved by the department. The witnesses have agreed that so far as they know no definite official plan for war which we actually fought against Germany was prepared and put into force, at least until many months after war began.

Admiral Benson has told you that our only plan when we entered the war was to cooperate with the Allies; that we knew too little about what was being done and about war experience and about what would be required of us to draw up any such plan ourselves; that consequently the plan of the Navy was to ask the Allies what they wanted and to give as much as we could, after such requests of the Allies had been fully and carefully deliberated upon in Washington and the requests of the Allies were granted.

WHAT SHOULD AND COULD HAVE BEEN DONE BUT WAS NOT DONE TO
PREPARE THE NAVY FOR WAR.

These same officers have testified that, at least after the Battle of Jutland, and probably since 1915, it had been perfectly apparent that if we entered the war at all we would enter it on the side of the Allies and would be fighting Germany, not alone, but in cooperation with the Allies. They have testified that in their opinion this was

attle of Jutland, it was perfectly apparent that the British fleet, and there seemed no possibility that the German fleet would ever successfully attack the British fleet. Such being the case, it should have been apparent that we would not be called upon to use effectively the fleet in the war, except perhaps for such divisions as might be sent as a reinforcement to the allied forces to insure still further the preponderance of the British fleet.

The German submarine campaign against merchant shipping in 1915. It had assumed serious proportions after the Battle of Jutland practically the only navy which were taking place apart from the support of the British German submarine campaign against merchant shipping the allied antisubmarine effort. It should, too, have been apparent that, in the event of the United States entering the war, transports would be sent abroad to reinforce the Allies on the continent. Every naval officer knew that the transports and their supplies would have to be assured by the Navy, in order to protect the belligerent vessels of the Navy, in order to maintain the marine force. Such being the case, it would seem that in 1916 on, plans should have been prepared for such action of the Navy. The department's witnesses have a testimony that it was apparent at that time that the only kind of a navy would be called upon to fight against Germany in the event of a war that we did fight when we came into the war in 1917.

Admiral Benson has testified that if the Navy Department had taken this attitude in 1916, if it had drawn up any plan for naval operations for use in the event of our entering the war on the side of the Allies, it would have been possible to have entered the war immediately with a very much larger force than we did in 1917. That is the statement of the Chief of Naval Operations that if we had had a plan which we could have had in 1916, we could have gone into the war much earlier and with a larger force than we actually did. The same steps that we took in 1917 could as well have been taken in 1916. The vessels suitable for antisubmarine operations could have been in a condition of material readiness for war. Personnel could have been obtained and trained, so that these vessels would have been ready to have entered the war almost immediately after the declaration of war.

Arrangements could have been made for the immediate use of other light craft, such as yachts, tugs, etc., which would have made it possible to have had them equipped and ready for operations within a very short time after the declaration of war. The steps which were taken in 1917 for postponing the construction and completion of major ships and for accelerating the construction of minor ships.

of destroyers, submarines, mine sweepers, and tugs could have been put into effect also. Admiral Benson has estimated that probably 50 additional destroyers could have been ready in 1917 if these steps had been taken.

It would seem from that testimony of the Chief of Operations that if we had laid down plans and followed them in 1916, we could have gone into the war immediately with probably 50 more destroyers than we had when the war broke out.

REASONS WHY NO STEPS WERE TAKEN TO PREPARE NAVY FOR ITS PART IN THE GREAT WAR.

Nothing of this sort, however, was done. The department witnesses testified that the reason why it was not done was twofold: First, that the organization of the Navy Department was not such as to insure the Secretary receiving responsible military advice and such as to give the Chief of Naval Operations the authority and the responsibility for so coordinating the military activities of the Navy as to make such steps possible.

Second, the Secretary, in directing the department's policy, refused to approve the increase of personnel necessary to man the existing vessels and which would have been required by such a plan. He refused to permit any steps to be taken which might be considered steps in the direction of readiness for the kind of war which it was apparent we would have to fight if we entered the war, and which we actually did fight in 1917 and 1918. Every recommendation to Congress necessarily had to be made by the Secretary of the Navy, and he used his own judgment in approving or presenting the recommendations made to him by the various officers in the department.

No single officer was responsible for the advice given to the Secretary as to the policy which should be followed in building up the Navy, in manning it, and in preparing it for war. The officers who have testified—Admiral Badger, Admiral Benson, Admiral McKean, and the others—have reported instance after instance of recommendations which they made which were ignored or disapproved by the Secretary and on which no action was taken. None of these officers could recall any single instance in which the Secretary himself had called for any preparation of war plans or had asked for any special efforts to be made with regard to preparing the Navy for war, though in a few instances he had signed letters prepared by these officers. In fact, according to their testimony, already reported, the Secretary conscientiously avoided any reference to a possibility of war in his plans and recommendations for the guidance of the Navy Department. He apparently consistently refused to admit that the Navy existed to fight, and that there is no excuse unless it is maintained at all times in such a state of fighting efficiency that in the event of war the country can depend upon it to strike the enemy, not half-heartedly and after many months' delay, but immediately, effectively, and victoriously.

Thus it is easy to understand why the Navy did not have plans to meet the situation which existed when we came into the war; that is, the necessity of throwing practically our whole available

force into the war against submarines. It also explains why vessels of the Navy were not materially ready for war, and why, as Admiral McKean testified, it took six months to get them prepared after the actual date of the declaration of war. It also explains why the Navy was so greatly handicapped by the lack of personnel after the declaration of war and why it became necessary seriously to impair the battle efficiency of our dreadnaughts by taking skilled gun crews from them to use as armed guards for merchant shipping, leaving their places on the dreadnaughts to be filled up by raw recruits.

FAILURE OF DEPARTMENT TO TAKE EFFECTIVE ACTION AFTER THE BREACH OF RELATIONS IN FEBRUARY, 1917.

After the breach of diplomatic relations with Germany, and even after the declaration of war, direct steps were not taken to meet the situation, except in so far as was possible by the individual officers in the department and in the fleet. There was no general, well-directed, carefully thought out, systematically coordinated plan of activities. All the witnesses have given substantial confirmation of this point. As Capt. Pratt explained in detail, as the war progressed, these defects were gradually remedied. But by bit and piecemeal the coordination of the activities of the Navy was brought about. War plans, or what might be called war plans, came into existence through the coordination of various individual recommendations of various officers in the Department on the General Board and in the Office of Operations.

As Capt. Pratt stated in his testimony (p. 2832):

At the outbreak of war neither the organization nor the administration of the department at home was such that it lent itself to the most efficient handling of the Great War. * * * These conditions were true when we entered the war and they lasted until the defects could be remedied, but by April, 1918 * * * the organization of the Office of Operations had been modified and the methods of administration changed.

And it took one year to get it in working order.

PRIVATE MEMORANDA OF INDIVIDUAL OFFICERS ONLY WAR PLANS PREPARED IN DEPARTMENT.

The various witnesses who have appeared have given you a long account of the efforts which they and their associates made to get things done in the absence of any such well-defined plan. Capt. Pratt has submitted a list of some 30 memoranda which he drew up himself. Although in presenting these as evidence he has labeled each one at the top in capital letters "PLAN," he admitted under cross-examination that these "plans" were in reality only his personal memoranda; that they were not even dated; that he did not know in most cases whether or not they had ever been officially approved even by his immediate superior. In some cases he knew they had been carried into effect, but only because later he, himself, had become assistant chief of naval operation and had himself carried them into effect.

Similarly, Admiral Benson testified that there were no plans drawn up to meet the situation which we faced in April, 1917; that the

only plans which existed were the ideas which he had in his own mind; that he imparted those ideas to his subordinates, and that they carried them out. Thus, when asked whether any memorandum or recommendation could be considered a plan until specifically approved officially by the head of the department, Admiral Benson admitted that technically this could not be considered a plan, but that he thought that it amounted to the same thing, for, as he said (p. 4779):

I was a member of the General Board, and there were a good many of those things, as well as many others, that I carried out without reference to the Secretary, and then informed him—tried to keep him informed. I felt that the Secretary had confidence in me, and I told him I would go ahead and try to keep him informed as well as I could, but I frequently did things without reference to the Secretary and informed him afterwards of what I had done.

As has already been indicated by the quotations from Admiral Benson's testimony already given you, Admiral Benson indicated to his subordinates the policies that he desired carried out, and he assumed that they drew up the plans by which these policies could be carried out, but he had no definite knowledge of any such plans, nor has any other department witness who appeared shown any great familiarity with these plans than Admiral Benson himself.

I might invite attention to the fact that when the Chief of Naval Operations himself admits that he did not know anything about any plan that might have been possibly drawn up by his subordinates, that none of the subordinates who have testified here knew of any such plans, we may consider the case proven that there were no plans that would fit in this war.

FAILURE OF DEPARTMENT TO ACT ON RECOMMENDATIONS OF THE GENERAL BOARD.

Thus, for example, there have been submitted in evidence a number of recommendations made by the General Board in 1917. Those have been presented to the committee as being the department's plans. One of these was a memorandum of the General Board of February 4, 1917, pointing out a number of specific steps which should be taken to prepare for a possible war against Germany. This was never officially approved by the department, and, so far as Admiral Badger knew, it had not been carried into effect, though he assumed that some of the things recommended had been done. He did not know whether this recommendation of the General Board had had anything to do with the things which were actually done. Much has also been made of a plan submitted by the General Board on February 17, 1917, for the war against Germany, in response to a request from the department.

With regard to this, Capt. Pratt said (p. 3407):

The letter of February 10, 1917, was prepared by Capt. Chase, was signed by the Secretary, and was sent to the General Board. * * * They submitted an answer, which was disapproved.

This is the "plan," which has since been so mysteriously lost from the files of the department.

The CHAIRMAN. Then it was not used?

Capt. PRATT. Oh, no. I did not use it, and I do not know of any other persons who did.

When it came to the question of arming merchant ships, in March, 1917, Capt. Pitt Scott drew up a memorandum of how this should be carried out, and, acting in cooperation with Capts. Pratt and Schofield, got the approval of Admiral Benson and of the Secretary. Thereupon Capt. Scott proceeded to take his recommendations and carry them into effect himself.

I would like to say in connection with the business of arming merchant ships that it was one of the severest blows to the commander of the forces on the other side to be notified, after having been trying three months to persuade the Navy Department to assist with the convoy system, to be informed that they considered that ships having armed guards on them were safer when sailing independently. To me it was a mystification. The explanation of this thing came later in the form of an estimate of the situation, which was a purely logical document in all respects. The premises of that document were that a vigilant armed guard will always see a submarine in time to shoot it down, and based upon that premises they formed the conclusion that vessels sailing independently were safer than in convoy. You can not blame officers for making a reasoned estimate of what they believed to be true, but the grave error that was made by the Navy Department during the war was that they repeatedly did that same thing. They drew up perfectly logical estimates of the situation upon what they believed to be the facts in the case, and they did not refer over to the other side to see what the facts were.

When that astonishing statement reached us on the other side we immediately submitted by telegraph the facts in the case, which showed that their premise was all wrong. I could cite numerous instances where that was done. You have heard the statement of Admiral Benson, and we should consider his responsibility as such that it was up to him to make such decisions. There can be no more serious or grave violation of military principles that Admiral Benson's making decisions in Washington as to fighting submarines in the front.

The CHAIRMAN. Admiral Sims the question of the signature of that letter has come up before the committee.

Admiral SIMS. I will come to that thing presently.

The CHAIRMAN. And you will explain that later on?

Admiral SIMS. Yes. I will come to that presently. In March, the General Board submitted several recommendations, on none of which was any official action ever taken, so far as the records indicate.

On April 5, 1917, the General Board submitted two recommendations, one relating to the use of the Navy in cooperation with the Allies; the other relating to the sending of officers abroad to obtain information from the Allies. The first of these plans was indorsed on June 8 by an officer in the office of Operations with the statement to the effect that, so far as possible, these recommendations were being carried into effect. There is no indication that this recommendation was ever accepted and officially approved as a general plan, and it is at least certain that most of the recommendations were not followed, as a mere examination of the letter shows. In the case of the second plan, the General Board pointed out how great was the importance of getting immediately all available information from the Allies,

and recommended that 10 officers including myself, should be sent to London, and 6 officers under Admiral Rodger to go to Paris. They explained that this number of officers was necessary in order that the available war information, vitally and immediately needed by the department, could be obtained within two months. No action was taken on this recommendation of the General Board. I had already gone abroad with my aid, and, during the first four months of the war the Navy Department expected me, with only one officer to assist me, to send over the information which the General Board had estimated it would take 16 experienced and technically qualified officers two months to accumulate. Comment seems superfluous as to whether or not this recommendation of the General Board can be considered as a departmental plan.

Similarly, on May 3, 1917, the General Board submitted recommendations to the department, based on reports which they had received from allied officers, upon and on my early messages, in which recommended substantially the same policy and measures that were recommended from London after full conference and agreement with the allied naval chiefs. They urged that all available light craft should be sent abroad immediately, pointed out that about 200 light craft could probably be requisitioned and put into service within two months and sent abroad. Unfortunately no more action was ever taken on these recommendations than on the recommendations which I was sending from abroad at the same time.

HOW ACTION OF INDIVIDUAL OFFICERS SAVED SITUATION CREATED BY THE HOPELESS INACTION OF DEPARTMENT.

None of the officers who served in the department during the war, and who have testified before this committee, have attempted to maintain that any definite plan was formulated before or during the early months of the war to provide for the most effective carrying on of naval operations. The officers have confined themselves to relating how, in the absence of any such plan, they did their very best each in his own sphere to accomplish the efficient prosecution of the war. I have never questioned this, nor in my opinion is it questionable.

The more I review the situation as it was in 1917 the more I am amazed at the extent of the achievements which the Navy really accomplished. The fact that the Navy was able to do as well as it did was undoubtedly due to the efficient and unsparing efforts of these officers in the department. They had recognized the real conditions long before war broke out and had endeavored to take such steps as they could to get ready for war.

After war broke out, I think there can hardly be a doubt that practically every single individual in the department was actuated by a common motive and by the desire to make the forces of the American Navy felt in the war as effectively as possible. But, as I have already pointed out, the efficiency of the Navy or the efforts of individual officers has never been questioned. It has, however, nothing to do with the question as to whether or not the organization of the department was of such a nature, and the direction of the department was so administered, that the individual efforts

of all these officers accomplished the most effective results. On this point, too, there seems to be little possibility of doubt. Every one of the department's witnesses has been in agreement in testifying that steps which could and should have been foreseen had been neglected; and that the heads of the department, instead of providing the effective organization, the enthusiastic leadership, and the will to victory which would have made a unit of the Navy Department organization, failed to bring about that cooperation and to provide that leadership. The individual officers had to do, by their own personal efforts and by personal cooperation and conference with other officers, what should have been foreseen and provided for in the organization of the department and in its war plans. Consequently, the testimony that I have given, instead of being construed as a criticism of these department officers, was in reality quite the contrary. Their testimony, instead of refuting my criticisms, have served to confirm and accentuate them.

REVIEW OF ACTIVITIES IN DEPARTMENT AFTER FEBRUARY, 1917, DISCLOSES FAILURE TO MEET THE EMERGENCY CREATED BY WAR.

A general summary of the steps which were taken by the department from February, 1917, on, shows how completely the organization and direction of the department failed to meet the situation. Between the time when the German ambassador was given his passports, February 2, 1917, and the declaration of war, practically no official steps were taken by the department to provide for what the Navy should do in case we should be forced to enter the war. During this period, however, individual officers in the department were very active. The General Board submitted a series of recommendations as to steps which should be taken. A number of officers who had had the War College course and who were then in the Office of Operations appreciated full well the steps which should have been taken. Admiral McKean, Capt. Pratt, Capt. Chase, Capt. Schofield, and Capt. Scott, individually and collectively, used every means at their disposition to impress upon the department the necessity of taking some steps. On the 3d of February, 1917, Admiral McKean—page 4126—submitted a memorandum covering the material condition of the Navy in which he pointed out that the Navy's mission under the existing condition was: First, to prepare all ships now built for war service at once; and, second, to complete the new ships as rapidly as possible. In order to accomplish this, he recommended that 17 different steps should be taken. In his testimony he stated that he did not know what action, if any, had ever been taken on any of these 17 points. Similarly, Capt. Chase, assistant to the Chief of Naval Operations, prepared a letter to the General Board, asking them to prepare a plan as to what the Navy should do in case the United States entered the war against Germany.

The General Board, as Admiral Badger and other officers have testified, prepared such a plan and sent it to the department. Both Capt. Pratt and Admiral McKean testified that they had never seen this plan; that it had never been adopted; that they did not know what it recommended; and Capt. Pratt definitely stated that the

plan had been disapproved by the department. Admiral Badger, in commenting on this, said that the General Board had discharged its full duty and had drawn up plans which would have enabled the Navy to have operated much more effectively, but that the trouble was that "the critics" were not satisfied. He also testified that he did not know definitely whether any action was taken as a result of the memoranda submitted by the General Board.

At the beginning of March Congress showed its disposition to authorize any action necessary in the national defense and appropriated an emergency fund of \$115,000,000 for the Navy Department. The officers in the Office of Operations, realizing the importance of developing a systematic plan for the use of the Navy in entering the war, and especially for the wise and efficient spending of these emergency funds, drew up memoranda. These were combined into what would have served as a complete and specific plan to govern the Navy's activities. All the witnesses have agreed that no such plan was ever officially adopted and put into force by the department.

As Admiral McKean said (p. 4362) :

There was no special plan to meet the issue that arose in 1917, except the General Board plan modified by the plan of 1917 (which was lost).

The CHAIRMAN. And yet no plan was ready at that time, February, 1917, for such an event?

Admiral McKEAN. I do not think there was a detailed plan for the special conditions; no. I never saw one. We worked up the details of the plan as the situation developed.

Again, when Admiral McKean was asked whether he could give the committee the general base plan on which the department was working in 1917, he said (p. 4365) :

Impossible. There is no such thing in existence.

ACTIVITIES OF INDIVIDUAL OFFICERS IN ATTEMPTING TO SAVE THE SITUATION.

Unable to get the department to approve and put into force any such war plan, these individual officers, feeling keenly their responsibility, endeavored to do by individual acts what they could not get the department to do officially. Capt. Chase, Capt. Pratt, Admiral McKean, Capt. Schofield, Capt. Laning, and other officers not only devoted their efforts to their own particular duties but also drew up many memoranda on many phases of the situation. These memoranda were of the kind they had been trained to make at the Naval War College. They involved a careful estimate of the various situations which might arise, a survey of the problems to be met, and recommendations as to the best use of the resources available to meet those problems. Capt. Pratt has submitted a large number of these memoranda. The fact that he has labeled them "plans" means nothing more than that for the purposes of this investigation the officers who served in the department naturally desired to give a full account of their own activities. In the absence of any real plan, all these memoranda and the activities of these different officers taken together undoubtedly and necessarily took the place of the non-existent official plans.

Thus Capt. Pratt, in discussing the situation in 1917, admitted that while there was no specific detailed war plan, these memoranda

were drawn up to accomplish the purpose which would have been, normally speaking, accomplished by such a war plan. He said of the officers in the Office of Operations (p. 3838):

They were a little band of brothers, united together in their thoughts and in their studies, so that they spoke a common language. * * * We had all been students of the Naval War College * * * and so in talking things over we had rather a definite idea of what we thought should be done.

Capt. Pratt went on to say that in regard to the memoranda:

I think most of those that I submitted I wrote myself.

When questioned as to whether there were any definite plans, he explained:

It is very difficult to draw the line where policy melts into plan and where plan passes from its general aspect into definite action. Those plans that I outlined looked behind, looked at the time we were in and tried to look ahead; and a great many of them passed from the atmosphere of policy into definite action. * * * They passed because I afterwards became the operator. * * * Every one of those I made out I laid on Capt. Chase's desk, and he took them home with him and studied them and we used to talk over the subject a great deal.

These plans, Capt. Pratt explained—

were more or less in the nature of suggestions and memoranda for him (Capt. Chase). * * * That is exactly what they were intended to be.

HANDICAPS IMPOSED BY LACK OF PLANS AND INTELLIGENT DIRECTION.

Capt. Pratt said also that none of these memoranda of his were officially put into force as plans by the department, and he had no knowledge as to whether they were used by the department.

We can only determine that by the event.

Capt. Pratt gave a full account of how the other officers were similarly presenting similar memoranda for consideration. In only two cases did Capt. Pratt know of any definite action that had been taken on his memoranda, and he only knew of these because in each case, after having drawn up the memoranda, he was told to go ahead and do things he had recommended.

Admiral McKean gave exactly the same testimony as to the state of affairs at this time. He said that there were no detailed and complete plans (p. 3219):

* * * The personnel who could work out such detailed plans was not available nor was the information.

When asked as to the steps he took himself in February, 1917, to get action, he gave substantially the same account as Capt. Pratt.

Thus, he was asked (p. 4297):

The CHAIRMAN. Did you not make the suggestion yourself that a regular plan be drawn up to meet the special conditions of a war with Germany?

Admiral McKEAN. Yes; I think probably in conference with Capt. Chase I suggested it. I talked it over with him. * * * I do not know where the suggestion came from, but that was probably the cause of that letter of his (of Feb. 10, 1917) to the General Board, asking for a plan.

The CHAIRMAN. And was such a plan approved and put in force?

Admiral McKEAN. There was such a plan received. * * * That is going back again to the lost one. I do not recall. Senator, ever having seen that plan or what it looked like, or what it contained; but I do know the lines that it was worked along and we were working along those lines both before and after and all the time.

It would hardly be possible to conceive a greater confusion in reference to plans.

Admiral McKean agreed that it would have been of great advantage to have had such a plan (p. 4399) :

It might have relieved me of doing some administrative planning work myself.

In discussing the way in which the office worked, he said (p. 4364) :

Pratt * * * would pass a plan or a part of a plan over to me orally and we would discuss it and discuss it sometimes with our chief, and if it needed the Secretary's approval he would take it up with the Secretary, but it was often, as I say, disposed of orally, and they would say "go ahead and furnish the material at such and such a date."

Admiral McKean also testified that at no time was he given any general plan as to how the United States naval forces would be employed during the war, or any general instructions as to what ships should be prepared for war or what their duties would be. Instead, whenever a decision was reached to send over any individual units, he would be informed and told to get them ready immediately and send them off. This happened both in the case of the antisubmarine forces and of the battleships sent, but Admiral McKean was not sure, in his testimony, that he needed any such general instructions, because he believed that, knowing as intimately as he did the other officers in the department, he could accomplish by informal agreement and direction, memoranda, and conferences what would ordinarily have been provided for by such instructions.

Thus, for example (p. 4372) :

The CHAIRMAN. After our entry into the war, were you given any general plan of operations to guide your activities?

Admiral McKean. I did not need any.

In another place: Admiral McKean said that the method by which the officers worked (p. 4365)—

was as specific and as complete in details as was necessary for the officers concerned to operate under effectively and efficiently.

There was no base plan to provide the manner in which vessels should be used—

but I knew what vessels * * * I was called upon to get ready materially for use overseas or for use at home or for use otherwise.

It was true that there was no specific plan in writing—

but I had it in my head and I was working on it every day * * *.

The CHAIRMAN. That is, there were a lot of ideas and a lot of memoranda, but undigested?

Admiral McKean. They did not have to write them down in order to digest them. We digested them at the time and got action. We would have a discussion as to a certain part of the plans * * * and they would say, "What will that require in material?" and I would ask, "What is it you want, when do you want it, and what type of ship?"

Admiral McKean also testified that he had prepared many memoranda with regard to improving the matériel condition of the vessels, and had submitted these memoranda in his testimony. When asked what became of these and whether they were approved or not, Admiral McKean said (p. 4130) :

They were not always approved in tota, but, like other things, the suggestions came from different sources of what we should do to get ready for war, and

they were taken to the chief. The chief took them up, or took them up with the Secretary; and I only cite those to show what we were thinking about and what we were trying to do; and I want to say that I succeeded in getting most of them done on time. * * * We would take them up with the chief and we would discuss them in conference. Some of them would be changed a bit, but we did get most of it through. This is illustrative of the lines we were working along, and I did have the sympathetic support of my chief in this business, and, within limits, also of the Secretary. He thought that I was a very extravagant individual. * * * If I did not get some action on a memorandum at that time. * * * I followed it up pretty close.

In further explanation of the methods used in the department, Admiral McKean said (p. 4448) :

We kept our plans in our heads, and when we discussed them we told people and burned the notes. It seems to me there is a good deal of misunderstanding about the necessity for detailed plans. I think the accent on the plan business is placed too strong. I did not miss the plans so much during the war.

The CHAIRMAN. Admiral, we will adjourn now until 2.30 o'clock this afternoon.

(Thereupon, at 12.45 o'clock p. m., the committee took a recess until 2.30 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee reconvened pursuant to the taking of the recess at 2.30 o'clock p. m., Senator Henry W. Keyes (acting chairman) presiding.

TESTIMONY OF ADMIRAL W. S. SIMS—Resumed.

Senator KEYES. The committee will come to order. I am sorry to say that the chairman of the committee is detained in the Senate this afternoon, but it is his wish that we go on with the hearing, and you will therefore proceed, Admiral Sims, with your statement.

Admiral SIMS. Admiral Benson, in his testimony, confirmed absolutely the statements of Capt. Pratt and Admiral McKean as to the methods used in the department. According to Admiral Benson's explanation, no general plan was ever adopted. Such plan as might have existed was only that which existed in his own mind. He would receive from his subordinates all sorts of memoranda and suggestions, would reach his own decision, would take up the matter with the Secretary, and, often after some delay and much difficulty, would get a decision. Then, the policy having been decided, he would announce it to his subordinates and give them instructions to do some particular thing. He assumed that in the execution of the operations thus ordered the subordinates prepared and carried out their own plans, although he did not know, but at any rate these were the only plans which the department had, and upon which it based its operations. That, I should say, was entirely conclusive evidence as to whether the department had plans of the kind we were talking about; that is to say, plans for carrying on the particular and peculiar warfare.

RESULTS OF METHODS OF DEPARTMENT IN 1917.

What actually happened in the early months of 1917 shows how this method worked. In March the officers of the department still found a determined opposition on the part of the Secretary to any

steps looking toward the preparation of the Navy to intervene in the war. Toward the middle of March the officers succeeded in getting the armed-guard policy approved, and Capt. Scott thereupon proceeded to carry out his own memoranda, and with the assistance of various other officers went ahead with the arming of merchant ships. At the end of March, after the declaration of war seemed inevitable, the approval of the department was obtained for the organization of the patrol force, and Admiral Wilson was ordered to Washington to take command of this force as soon as war should be declared. The so-called plans for the use of this force, submitted by Capt. Pratt, were in reality nothing but a list of the ships to be included in the force and the campaign orders issued by Admiral Wilson himself to his force. No evidence was given of any departmental plan of which the formation of the patrol force was a part.

Similarly, no definite plan was made for the expenditure of the emergency fund or for utilizing it to fit the Navy for the antisubmarine warfare in which, according to Capt. Pratt, Admiral McKean, and other officers, it was obvious that the Navy's effort would be chiefly occupied. Instead of devising some such plan for the most effective and economical utilization of this money, the matter was kept by the Secretary entirely in his own hands, and he himself determined how the money should be expended, without regard to any departmental plan, he himself having disapproved the efforts to obtain such a plan.

There could hardly be a greater contradiction than that between the situation as it actually existed in April, 1917, and that which the Secretary has described to you in his testimony and which he has expressed in his report to the President. Admiral Benson, Admiral McKean, Admiral Badger, Capt. Pratt, all agreed that his expression that the Navy was ready from stem to stern on the day we declared war, was not accurate from their profession viewpoint, and explained that it was probably a journalistic phrase and that they did not know what the Secretary meant to imply by it.

THE CONDITION OF THE NAVY IN 1917 WAS ONE OF UNPREPAREDNESS FOR WAR.

For three years the department's policy had prevented any adequate preparation to meet a situation such as that presented on April 6, 1917, when it became necessary for the Navy to play its part in the war. As has already been pointed out, the only parts of the Navy that were at that time in an efficient state as to matériel and personnel were the dreadnaught divisions and some 20 destroyers which were with these divisions. All the other vessels of the Navy were in varying states of matériel depreciation and were all short of crews. In spite of the fact that it should have been apparent for at least a year that when the Navy entered the war its chief effort must necessarily be directed against combatting submarines, no plans had been prepared for this. The type of vessels that were needed were not ready. No effort had been made to provide additional vessels of this type or to provide the necessary crews. In spite of the fact that the submarine effort was necessarily concentrated in the waters of Europe where the supply lines of the Allies focused, there had apparently not even been any consideration of the possibility of sending naval craft overseas.

DEFENSIVE POLICY OF DEPARTMENT IN 1917.

The whole of the plan of the Navy, at this time—April, 1917—as revealed by the department's own witnesses, was to mobilize the fleet, to defend the Atlantic coasts ports, and to provide for an off-shore patrol by sending out the available light forces of the Navy on arduous patrol duty along the Atlantic coast, 3,000 miles from the nearest submarine. Admiral Benson has testified that on entering the war our policy, and the plan for our cooperation with the Allies, was to find out from them what they wanted us to do, and then to do it after we had first carefully considered our own defensive needs, and subjected their requests to deliberation in Washington, where, as all these officers fully agreed, there was at the time no information upon which any intelligent deliberation or discussion of these requests could be based.

It is true that, as a result of a request from Ambassador Page, I had sailed at the end of March for London, but I had received no instructions beyond that which I have already described in my testimony. I had not been informed as to whether or not the Navy would send any vessels abroad. I had received no inkling of what the policy or plans of the department might be. I was simply to get what information I could on the other side on the subject of cooperation.

DEPARTMENT INFORMED BEFORE WAR WAS DECLARED OF ASSISTANCE
NEEDED IMMEDIATELY BY ALLIES.

The first indication that the department received as to the help which the Allies would require from them was not that given by the French and British admirals in the conference of April 10 and 11, 1917, as might be implied from the testimony of the Secretary. On the contrary the department had received two weeks previously a statement of the suggestions of the Allies which provided not only for defensive cooperation far from the war zone, but also for active offensive intervention against the submarines in the critical area of the war zone.

The naval attaché in London on March 29, 1917, cabled to the Navy Department as follows:

The highest authorities hope unofficially that we might find it possible to cooperate as follows:

1. Hold on the Pacific coast to the Canal and later the South Pacific to Cape Horn.
2. Keep our Asiatic forces intact.
3. Base our destroyers on Ireland and operate as soon as we find our Atlantic seaboard free.
4. Except for the east side, hold the Atlantic north and south.

Of course, at the time this message was received in the department the United States was not yet at war, but within a week Congress, in response to the President's stirring message, had officially declared war. As soon as this happened the allied British and French naval authorities instructed their respective commanders in the western Atlantic to get in touch with the Navy Department and to arrange for cooperation with the Navy Department specifically in the patrol against raiders in the western Atlantic. The British authorities had

two weeks previously informed our naval attaché in London, however, as to the help which the Allies expected from us, and in the message quoted above one of these requests had been that we "base our destroyers on Ireland." There was no suggestion that we send two destroyers for the moral effect. On the contrary, judging from the attitude I found on arrival in London, it was expected that we might immediately send abroad all our destroyers.

MISINTERPRETATION BY SECRETARY OF AGREEMENT MADE WITH LOCAL ALLIED COMMANDERS IN APRIL FOR DEFENSIVE PATROL IN ATLANTIC.

The Secretary in his testimony seemed to think that Admiral Browning and Admiral de Grasset had come to the Navy Department as naval plenipotentiaries to discuss the whole question of co-operation between the United States and the Allies, but the officers from the department who testified did not agree with this.

Thus, Admiral Badger said (p. 2665) :

On April 11 Vice Admirals Browning and de Grasset, respectively commanding the British and French cruiser and patrol squadrons in the western Atlantic, with members of their staff, met in the General Board room in conference with the Secretary, the Assistant Secretary, and a considerable number of our leading naval officers, to discuss the war situation and set forth the ways in which in their opinion the United States could best render assistance to the Allies. While a discussion of the general subject was had, the British and French admirals were particularly concerned as to the patrol of the east coast of North and South America, for which their forces were considered inadequate. * * *

Page 2676 :

Admiral BADGER. I was concerned because it was their duty to look out for the patrol of the western Atlantic. What they wanted us to do was to give assistance there for the moment, so that to them for the moment that was the most important thing. * * * (P. 2677.) I think the gravity of the situation was touched upon by these officers and touched upon very strongly * * * but these particular men were interested in the duty which was assigned to them, and that was the protection of British and Allied commerce against raiders upon the east coast of the Americas.

Admiral Badger (p. 2793) :

No definite agreement was made on sending forces abroad to the submarine campaign. The definite agreement we made was for the patrolling of the east coast of North and South America.

I quote that thing for the purpose of refuting the statements made that the agreement was that we send two destroyers to the other side to show the flag. It is such an absurd statement that it requires to be refuted.

Similarly, Capt. Pratt said :

Admirals de Grasset and Browning did not go very definitely into the submarine situation. * * * Their point of view would be apt to be colored a good deal by conditions outside the war zone. Very frankly, I would consider that after a man had been outside the zone of operations for any length of time his opinion would not be as good as that of a man who was sitting right on the job day by day. (P. 3859.)

It is true that Admiral Browning spoke of the submarine situation. He may have had some direct instructions from the Admiralty which possibly he did not show to us.

It would appear from the above testimony that there is no ground for the assumption that these officers wished to convey the impres-

sion that they had come to discuss the whole subject of cooperation in the war zone, as well as on the eastern coast of America, or that their Governments would be completely satisfied by the agreement which they made. It has even been stated that one of the officers asked that two American destroyers be sent only for the moral effect, to show the American flag in European waters, and that he apparently considered this a sufficient contribution from the United States.

HESITATION AND DILATORY METHODS OF DEPARTMENT IN EARLY MONTHS OF WAR.

As the Navy Department had no plans for the use of American naval forces in the submarine campaign, and as apparently no real study had been made of the situation by responsible authorities, it is not surprising that the department did not at first hear with enthusiasm the appeal of the Allies for assistance in the war zone. In the absence of any plan, every individual act had to be considered individually. No policy having been decided upon, other than that of meeting each situation as it arose, it became necessary to spend long hours in deliberation and discussion of each and every individual request for forces. Naturally, too, it is only to be expected that it would be somewhat difficult for an administration which had been for three years devoting itself insistently to opposing any effort looking toward successful war operations on the side of the Allies, to change its spots overnight and to suddenly throw itself with full vigor into the battle line alongside the Allies. Every suggestion as to the employment of forces abroad during the first few months, as the various department's witnesses have testified, was subjected to long deliberations and discussions. They state that it was not sufficient for the Allies to say that the forces were needed, the Allies must first explain in detail all of their own plans and policies, justify their own conduct of the war, and explain every conceivable circumstance connected with their request for reinforcements.

I will invite attention again to the fact that that is one of the main contentions we made in these criticisms, that they insisted upon the handling of these details 3,000 miles away.

In the meantime the Navy Department, as the department's witnesses have all testified, were concerned, not primarily with defeating the enemy, which, so far as the Navy was concerned at this time, was the German submarine, but their chief concern was that of defense. Fifty-five light craft had been gathered together to form the patrol force, and already they had begun their futile patrol up and down the Atlantic coast, wearing out the matériel and the personnel in a search for an enemy which was 3,000 miles away. Having no officially approved plans to meet the situation, and with no prevision which would have enabled them to enter into the war intelligently and effectively, when war was declared, the heads of the department struggled against the greatest difficulties, not only in getting the Navy ready to fight after war had begun, but also in making up their mind as to where the fighting was.

DEPARTMENT'S FAILURE TO FIND RECORD OF AGREEMENT OF APRIL, 1917,
IN ITS OWN FILES.

I might say there that after any war of considerable length it usually happens or often happens that the files are in disorder, and it is often not easy to find things, because they dip into each other's files during the war for various papers and they do not get them back again.

The Navy Department's witnesses and the Secretary had referred a number of times to the message which I included in my testimony before this committee, which was sent on April 13, 1917, by Vice Admiral Browning to the Admiralty. It is rather interesting as a commentary upon the department's view of the situation at that time that apparently the agreement was considered of so little importance that no copy of it, or no full statement of it, was to be found in the files of the Navy Department. Capt. Pratt, in his testimony, and the Secretary of the Navy likewise in his turn, in referring to this agreement with the allied admiralities, quoted the copy of a message from Admiral Browning to the Admiralty setting forth the clauses of the agreement I had obtained from Admiral Jellicoe in April, 1917, and, as I have already stated, the department never informed me of the agreement or even intimated at the time that any such agreement had been made. It appears that the copies which they introduced had either been taken from my own testimony or from the documents which I supplied to the historical section in London and which are now in the files of the Navy Department. The copy introduced by Capt. Pratt was in fact marked "supplied by the historical section."

SIGNIFICANT OMISSION FROM MESSAGE READ BY THE SECRETARY OF THE
NAVY.

The Secretary, in quoting this message of Admiral Browning to the Admiralty, omitted what, from the point of view of this committee, should be the most interesting sentence in the whole message, in view of the Secretary's assumption that the allied admirals were completely satisfied with the agreement and that we had done everything that they expected. After giving the various points upon which agreement had been reached as to what the United States Navy would do in assisting the French and British in defensive and antiraider patrols in the western Atlantic and elsewhere, Admiral Browning said, with regard to the supplying of forces by the United States for service in the war zone, and this was the sentence which the Secretary of the Navy omitted when he included the message in his testimony before you: "Too much reliance should not be placed, however, in early success."

It is obvious from this sentence that Admiral Browning cherished no illusions as to the degree of whole-hearted cooperation to be expected at that time from the Navy Department. That his doubt as to the extent of cooperation to be expected was justified is fully borne out by what actually happened, by the delay of many months in getting the available light craft into the war zone, by the consistent policy which the Navy Department followed in the early

months of delaying action on practically every request from the Allies, whether submitted directly or through me, and by the refusal of the Navy Department to supply reinforcements requested until every detail and every circumstance leading to the request should be explained fully and to the satisfaction of the Navy Department, and until the Navy Department in its turn should not only be satisfied as to the reasons for the request but should have made sure that it would not interfere with their own plans for patrolling areas 3,000 miles from the nearest submarine, and with their paper policies explained by Admiral Benson and the Secretary for fighting the next war.

Admiral Benson, in deed, in his testimony said:

I think we did exactly what was the right thing to do at the time with what we had. As a principle of warfare I believe in active offensive warfare, but—

And the next sentence is especially significant of the department's attitude (p. 4510):

This was not altogether our war.

DEPARTMENT'S DELAYS DUE TO GRAVE MILITARY ERRORS.

An attempt has been made by the Secretary and by some of the witnesses called at his request to justify the delays of the department on the ground that the department could not act without mature reflection, and that they could not accept any recommendation made by me until it had been fully discussed in Washington with the Allies's representatives there. It has been implied that I assumed that the Navy Department, as the Secretary expressed it, should become merely a rubber stamp to register and approve the recommendations I sent in. Anyone who has read my testimony, or my original letter, must realize what a misinterpretation of my whole attitude such an insinuation is. Of course, the Navy Department had to decide all questions of policy. I never for a moment assumed or thought that the ultimate decision rested anywhere but in the Navy Department. I did assume, however, that the primary mission of the Navy in the war was to help to win the war, regardless of any other consideration. All the officers who have appeared before you have declared that in April, 1917, information was not available in Washington upon which decisions could be based, and that very little was actually known about the conditions of the warfare against submarines. All of these witnesses, therefore, agreed in testifying, as did Admiral Benson, when he said (p. 4671):

Our plan in general was to send vessels over as fast as we could get them ready, and so on. To act, to cooperate with the Allies in any plans they had, that was our general plan.

In another place Admiral Benson again emphasized the fact that when we came into the war our policy was to find out what the Allies wanted and to act in accordance with their requests and recommendations.

Capt. Pratt, in admitting that I had received no information as to the department's policy or plans until July, 1917, stated that the policy letter which was cabled to me at that time, and which in substance assured the Allies of the full cooperation of the United States

Navy in the war, was the policy which had, in fact, been followed from the beginning, and Capt. Pratt was positive that at all times every officer in the department was not only willing but anxious to cooperate in every way with the Allies.

I assumed that this would be the policy of the department, in the absence of any definite instructions or specific information. It was so obviously the only thing that we could do that there was no question or dispute about it. I, therefore, considered it my duty to get in touch at once with the heads of the allied admiralities, and, after a full discussion of the situation with them, to recommend to the Navy Department such steps as the situation warranted, which were within the means of the Navy Department to undertake and which were in agreement with the policies of the allied navies. This I did, and from the time of my first message in April, 1917, I endeavored to supply all the information concerning the situation which was physically possible with but one aide. For three months, however, my efforts seemed almost futile. Nine-tenths of my messages were not even replied to. I received no indication of any sort as to what the department's action was going to be. The Allies, believing that I was the accredited representative of the Navy Department, naturally looked to me for information as to the action the Navy Department intended to take on the recommendations made, and during all those first months I practically never was able to inform them as to what the Navy Department's plans or policy might be, or as to what forces might be sent immediately or ultimately.

Meanwhile the Navy Department was holding the 55 vessels of the patrol force together with many destroyers of the fleet on the Atlantic coast. They were consistently disregarding or disapproving the Allies' requests for assistance. They were in constant communication and discussion with the allied officials in Washington as to the steps which they would take; but, as I pointed out in my previous statement before this committee, in most cases I was not even informed of these discussions, or of the decision reached, and had to learn, in most cases accidentally, of these activities of the department through casual remarks of allied naval officials or through seeing on their desks messages from Washington conveying essential information about plans, movements, and disposition of forces, etc.

All of the department's witnesses have agreed that I was the Navy Department's representative abroad; that most of the information received by the Navy Department came through me; and that my recommendations were almost without exception ultimately followed, after the period of delay, running often into months. I do not desire to deal longer with this point except to invite attention to one rather significant feature of the situation.

**ASSUMPTION OF OMNISCIENT WISDOM BY THE DEPARTMENT NOT JUSTIFIED
BY FACTS AND RESULTS.**

The Secretary has laid great stress upon his statement that all decisions had to be made in Washington. By that he implies that the officials of the Navy Department, who testify that they had very incomplete information as to the war experience of the Allies, were more competent with the advice and assistance of only a few subordi-

nate allied naval officers, to judge the complicated submarine situation, and to determine what should be done, than were the heads of the allied navies themselves, who had had nearly three years' of experience in the war, who had the benefit of the advice of hundreds of trained antisubmarine officers, and who had the full and complete information on every conceivable subject relating to the war within arm's reach.

**WHY CRITICISM BY THE SECRETARY THAT MY INFORMATION CAME FROM
BRITISH SOURCES IS UNTENABLE.**

The Secretary has specifically stated that my information came chiefly from British sources, and has assumed that because I got my information from British sources it was necessarily of little or no value, and that for this reason all of my recommendations were open to suspicion and had to be viewed with great care. Inasmuch as I had been sent to London by the Secretary of the Navy himself to obtain information, chiefly from British sources, because as he recognized at this time, and until his testimony before this committee the British Navy was necessarily playing the chief part in the war at sea, I may be permitted to inquire from what sources I was expected to acquire information if not from the British, to whom I had been accredited, and from the chiefs of the allied navies when we met in conference? Inasmuch as the whole allied experience in the submarine war was known only to the allied officials, from whom did the Secretary expect me to get the information upon which my recommendations were to be based if not from these sources? It must be added also that, although my information was necessarily from these sources, and although in some cases I transmitted requests made to the Navy Department through me by the British or French or Italian Navy Departments, in almost all cases my recommendations were based upon a thorough review of the situation made in conference not only with British but usually with the responsible French and Italian naval officials as well.

FALLACY OF POSITION MAINTAINED BY THE NAVY DEPARTMENT.

It was obviously the Navy Department's function and duty to determine our policy in the war. The policy having been determined, the steps taken to carry out that policy obviously depended upon a knowledge of the exact situation and full information as to how our available forces could be most effectively used. The Secretary's attitude is nothing less than that he and his advisors in Washington, with information which all of his own witnesses have admitted, was inadequate and incomplete, were better able to decide as to how a certain number of the naval units could best be employed abroad than was the combined experience and naval wisdom of all the allied leaders, even though such employment might depend upon information not 12 hours old and of such a nature as to demand immediate action.

In reviewing the delays of the Navy Department in sending forces abroad and in sending me additions to my staff of one line officer, it is apparent that these delays were due to the lack of any consistent

plan and to the inability to realize the situation and to perceive the steps which were necessary to meet it. Practically all of the department's witnesses, Admiral Benson, Admiral Badger, Capt. Pratt, Admiral McKean, have admitted that it would have been better to have sent the forces abroad earlier.

CONTRAST BETWEEN BOLD WAR POLICY OF THE PRESIDENT AND THE TIMID AND HESITANT INACTION OF THE NAVY DEPARTMENT.

It is interesting in this connection to contrast the bold, offensive policy which inspired the President from the time that we entered the war with the policy of inaction, hesitation, and delay on the part of the Navy Department, which has been revealed by the testimony of the department's witnesses. The President, as the speech to the officers of the fleet, on the *Pennsylvania*, in August, 1917, and his message to me on July 4 plainly indicate was in favor of acting boldly and disregarding the possibility of loss if the victory might thereby be hastened. He stated that he would willingly sacrifice half the American and British combined fleets to accomplish this end. Yet, at the very time that the President was expressing these sentiments, the Navy Department was subordinating the sending of assistance to the Allies to local defensive measures, was considering, not the winning of the war but the saving of the few American ships which might have been sunk if two or three submarines had visited the Atlantic coast in 1917 or the small amount of American shipping which could have been protected to a certain degree through the sole policy which the department consistently carried out in the early months—that is, of arming American merchantmen. It apparently made no difference to the department that for every ton of American shipping that was thus being saved ten, or one hundred, or one thousand tons of allied shipping was being lost.

THE POLICY OF THE NAVY DEPARTMENT IN THE EARLY MONTHS OF THE WAR.

Admiral Benson has very clearly explained what the policy of the department was in this connection in the early part of 1917. His policy was not to do everything possible to win the war, but to follow his natural inclinations and safeguard American interests and the American Navy and help the Allies with the forces left over.

He said, for example (p. 4778) :

Mahan was writing general principles for ordinary war. Mahan also says a great deal about cooperation with allies which has not been brought in, and I am not prepared to bring it in. * * * This war was a very unusual one. The conditions were very unusual. It was a condition, and not a theory, that we were facing, and we had to meet it as rapidly and efficiently as we could with what we had.

Page 3743 I :

Admiral BENSON. Mine was the responsibility. I had to exercise my judgment; and my first thought in the beginning, during, and always was to see, first, that our own coast and our own vessels and our own interests were safeguarded. Then, when I was satisfied that that was done as far as I could with what we had, then to give everything we had and to do everything we possibly could for the common cause.

Senator Pittman asked some questions which bring out the same thought:

Senator PITTMAN (p. 4743 H). If we had sent our fighting ships immediately to the war zone, they would have been placed in danger of destruction immediately, would they not?

Admiral BENSON. They would while in the submarine zone, certainly.

Senator PITTMAN. The loss of every one of our major ships during the war would have weakened our permanent Navy, would it not?

Admiral BENSON. It would.

Senator PITTMAN. The General Board, as had you as Chief of Operations, had those things in mind, did it not?

Admiral BENSON. Yes.

Senator PITTMAN. And, as you have testified, your first thought was for the protection of our own coast and the preservation of our own Navy?

Admiral BENSON. Absolutely, sir.

Page 4778:

Admiral BENSON. You always have one chance out of two, Mr. Chairman, to be right. * * * I had to act on my judgment; I could not take chances; I had to view the situation and act according to my judgment and my natural inclination and my duty, as I saw it, to safeguard American interests, and I did that; and, whether I was right or wrong, I should do the same thing again.

It would be difficult to imagine of more convincing evidence of a lack of whole-heartedness in supporting the cause of the Allies, which was apparently not recognized as the common cause at this stage of the war.

VIOLATION BY NAVY DEPARTMENT OF PRINCIPLES LAID DOWN BY THE PRESIDENT.

In view of these statements as to the safety-first policy which governed the department at this time, it seems hardly necessary to point out that at the same time that the Admiralty and the British Navy were being criticized for inactivity by the President, the Navy Department was holding back our own forces 3,000 miles from the war zone, and was not giving its representative abroad the support either in personnel or in ships which every one of the department's witnesses has recognized was possibly necessary, and which they agreed should have been given. The Navy Department was also at this time insistently resisting the adoption of the very measures which ultimately proved most successful in putting down the submarine menace; that is, the use of convoy and the employment of numerous antisubmarine craft within the war zone—and not 3,000 miles from the war zone—to protect the shipping needed to maintain the allied lines of communication and to safeguard the transport of troops and supplies and to attack submarines whenever they attempted to interfere with the convoy.

The measures which are successful in war are often not those bold and spectacular strokes which appeal so keenly to the imagination. Practically every witness who has appeared before this committee has given it as his professional opinion that the methods which were recommended in April, 1917, and which were employed, and which ultimately proved successful in defeating the submarine campaign, were the only ones which under the circumstances could have been successful.

As the President very rightly pointed out, the situation was so desperate in the month of July, 1917, that it was not a time for caution or for the employment of military forces on secondary and unimportant measures (such as the patrol of our coast). It was most certainly a time for quick and effective action, for throwing all the strength that we had, or that we could immediately obtain, against the enemy in the war that would prove most effective. The President himself in his speech to the officers of the fleet pointed out that the question of what measures should be used against the enemy would necessarily have to be determined by naval experts on the basis of the information and resources available, and, it should be added, upon the consideration of the all-important element of time. In other words, the situation which confronted the department in 1917 was not that of safety first for American interests, or of determining how the United States Navy might ultimately be made the most effective, or of how its strength could ultimately be thrown in on the biggest possible scale, but the problem was that of using immediately the forces that were immediately available in order to defeat the submarine campaign, to save allied shipping, and thereby make possible a continuation of the war, and the utilization against the enemy of the vast resources, wealth, man power, and material which America could throw into the scale and thus bring about a speedy victory.

REMARKABLE COINCIDENCE BETWEEN DATE OF PRESIDENT'S MESSAGE AND
BEGINNING OF EFFECTIVE ACTION BY NAVY DEPARTMENT.

There is one point to which I should like to invite your attention, which I hesitated for obvious reasons to bring to your attention when I appeared before you last March, and that is the remarkable coincidence between the time at which the President himself intervened directly in naval matters and the time at which the department began to heed the requests from the Allies for reinforcements, and to adopt and put into effect measures concerning which they had been delaying action. In my previous testimony I referred to the fact that I obtained no favorable answer to my requests for assistance in April, 1917, until after I had gone to Ambassador Page and he had sent an urgent personal message intended for the Secretary of State and the President, setting forth the urgency of the situation. Five days after his message was sent I received the first message which I had had from the Navy Department, giving any indication that they were intending to send forces abroad in any considerable number. This was the message of May 3, in which the department announced its intention ultimately to send 36 destroyers.

Similarly, practically all of my urgent dispatches of May and June went unheeded or were disapproved. In them I was insistently requesting officers to enable me to obtain the information so vitally needed by the Navy Department, repeating requests for antisubmarine forces, and urging the immediate adoption of the convoy system as a means by which the submarine campaign could be checked. In my direct testimony I related to you my appeal to Ambassador Page at the end of June, and I read you the letter which I sent him, asking him again to intervene directly in the endeavor to get action from

the Navy Department. I pointed out to him at the time that the department was ignoring my own message. At the end of June, therefore, Ambassador Page sent another urgent personal message to the State Department, intended for the Secretary of State and the President, calling their attention to the very serious condition of affairs, and to the necessity for immediate action along the lines which I had been recommending for two and one-half months.

At the same time the British Government sent a message to the British high commissioner in Washington, then Lord Northcliffe, asking him to present the same issue to the American Government. I, of course, am not at liberty to quote this message, as it would be a violation of a diplomatic confidence to publish a copy of a confidential dispatch between another Government and their ambassador. I learned later in London that the British ambassador had taken up this matter with the State Department and had presented the message sent to him by his Government.

Capt. Pratt has told you how, after the message from Ambassador Page was received in the State Department, that department wrote asking the Navy Department to outline its war policy, and, apparently, calling attention to the fact that the Allied Governments had received up to that time no definite indication of the policy governing the Navy Department or of the extent of the cooperation it was prepared to give to the Allies. When this request was received in the Navy Department, Capt. Pratt, as he has already told you, drafted himself a letter to the Secretary of State, which was sent to the State Department over the signature of the Secretary of the Navy, and was cabled to me on July 9, 1917, and which was the first definite statement of the department's policy for cooperating with the Allies, which I had received.

Thus, after I had failed to obtain action from the Navy Department, the message of Ambassador Page had succeeded in bringing forth a definite statement of the department's policy, prepared by Capt. Pratt. I think that that makes it clear that there was no policy at all to the Navy Department, and there is no telling how long such a policy would have been delayed if it had not been for the request from the State Department to the Navy Department to outline some policy.

THE PRESIDENT'S MESSAGE OF JULY 4, 1917.

At the same time, the messages from Ambassador Page and from the British Government had doubtless been communicated to the President; for immediately afterward—that is, on July 4—he sent me the dispatch which the Secretary of the Navy has read to you. I consider this message to be, in effect, not so much a criticism of the British Admiralty as an indictment of the inaction and delays which had characterized the Navy Department's activities during the early months of the war, and which I commented upon a few moments ago. The Secretary of the Navy quoted to you only certain parts of my reply to the President, stating that it consisted of generalities. It was so far from being a statement of generalities, that it not only defined very explicitly what, in my opinion, the Navy Department should at once do, but it presented recommendations which were

put in force and continued throughout the remainder of the war. I should, therefore, like to read you the President's message and my reply in full, and to comment upon them in order that the subject referred to therein may be clearly understood. The President's message was as follows:

[Received July 5, 1917, American Embassy, London, from State Department. July 4, 7 p. m. Strictly confidential. For Admiral Sims. Confidential, from the President.]

From the beginning of the war I have been greatly surprised at the failure of the British Admiralty to use Great Britain's naval superiority in an effective way. In the presence of the present submarine emergency they are helpless to the point of panic. Every plan we suggest they reject for some reason of prudence. In my view this is not a time for prudence, but for boldness, even at the cost of great losses. In most of your dispatches you have quite properly advised us of the sort of aid and cooperation desired from us by the Admiralty. The trouble is that their plans and methods do not seem to us efficacious. I would be very much obliged to you if you would report to me, confidentially of course, exactly what the Admiralty has been doing and what they have accomplished; and added to the report your own comments and suggestions, based on independent thought, as to the whole situation without regard to the judgments arrived at on that side of the water. The Admiralty was very slow to adopt the practice of convoy, and is not now, I judge, protecting convoys on an adequate scale within the danger zone, seeming to prefer to keep its small craft with the Grand Fleet. The absence of craft for convoy is even more apparent on the French coast than on the English coast and in the channel. I do not see how the necessary military supplies and supplies of food and fuel oil are to be delivered at British ports in any other way within the next few months than under adequate convoy. There will presently not be ships enough and our own shipbuilding plans may not begin to yield important results in less than 18 months. I believe that you will keep these instructions absolutely and entirely to yourself, and that you will give me such advice as you would give if you were handling the situation yourself and if you were running a navy of your own.

Of course, when one considers the tremendous burden which the President was carrying during those critical months of 1917 it is not to be expected that he should have had any intimate detailed knowledge concerning what the Navy Department was doing. It is at least to be presumed that his estimates of the Navy Department's activities were based chiefly upon reports made to him by the Secretary of the Navy. We can only surmise the character of those reports. The fact, however, that the Navy Department had been resisting the adoption of the convoy method for over two months at the date of this message; that they had failed to send light craft abroad for the very reason of prudence, which the President so strongly condemned; and that they were acting with incomprehensible hesitation and delay make it apparent that the criticism which he applies to the Admiralty apply with even greater force to the attitude of the Navy Department at that time.

ACTION OF NAVY DEPARTMENT IMMEDIATELY FOLLOWING THE DATE OF THE PRESIDENT'S CABLE MESSAGE.

It is a rather curious and significant fact that the Navy Department accepted the convoy system and cabled me announcing its acceptance the day following this message sent by the President to me, or on July 5, 1917, although as late as June 20, 1917, the department had cabled me that—

In regard to convoy, I consider that American vessels having armed guards are safer when sailing independently.

cruisers to convoy duty, has already been read to you a number of times. It is also interesting to note that in the week following the sending of this message by the President I received more information from the Navy Department as to their plans and intentions than I had received in the previous three months and was cabled the first statement of their policy that had been sent me. The department in the week following July 4 decided not only to adopt the convoy but to send 11 autisubmarine craft to Gibraltar, to bring 5 destroyers from the Asiatic Fleet to the Mediterranean, and to send various other light craft. It was at this time also that the department finally took action to accelerate the destroyer program and to postpone the 1916 building program, in order to build destroyers more rapidly.

It was from that time—that is, from July 4, approximately—that the Navy Department began to act with a certain amount of promptness upon the requests from the Allies. It was from that time that I began at least to receive answers in most cases to the messages that I had been sending. It was three days after that the President sent his message to me that my request for a chief of staff, that had been repeatedly disapproved in the previous two months, was finally granted, and I was informed that other officers were to be sent me, in accordance with my often-repeated requests. It is, of course, possible that this sudden change of front in the Navy Department was due to other causes of which I am not aware, but it certainly is a striking coincidence that this almost unexpected series of favorable decisions by the department should come in the week immediately following the sending of this dispatch from the President to me.

REPLY TO THE PRESIDENT'S MESSAGE.

It will be recalled that Mr. Daniels said that this statement was a statement of generalities. I would like to invite the committee's judgment as to whether it is not an exceedingly specific dispatch.

This coincidence appears all the more striking when the full text of my message to the President is considered.

The quotations made by the Secretary of the Navy were, very unfortunately, so disassociated from their context as to give an almost completely erroneous impression of the nature of this message. I am therefore quoting it in full, as follows:

JULY 7, 1917.

From: Admiral Sims, American Embassy, London.
Via: State Department.
To: The President.

I have sent by the last mail to the Secretary of the Navy an official paper, dated July, and giving the present British naval policy, the disposition of the vessels of the fleet, and the manner and method of their employment.

This will show to what extent the various units of the fleet, particularly destroyers, are being used to oppose the submarines, to protect shipping and escort convoys.

It is hoped and believed that the convoy system will be successful. It is being applied as extensively as the number of available escort cruisers and destroyers will permit. The paper shows also that there remains with the main fleet barely sufficient destroyers and auxiliary forces to meet on equal terms a possible sortie of the German fleet. The opposition to submarines and

the application of the convoy system are rendered possible solely by the British main fleet and its continuous readiness for action in case the German fleet comes out or adopts any operations outside the shelter of its fortifications and its mine fields.

I am also forwarding by next mail copy of a letter, dated June 27, from the minister of shipping to the prime minister, showing the present shipping situation and forecasting the results of a continuation of the present rate of destruction. Briefly, this shows that this rate is more than three times as great as the rate of building. A certain minimum amount of tonnage is required to supply the allied countries and their armies. This letter shows that at the present rate of destruction this minimum will be reached about next January.

That is, January, 1918.

This is not an opinion. It is a matter of arithmetic. It simply means that if this continues the Allies will be forced to an unsatisfactory peace.

The North Sea is mined by British and German mines for more than 100 miles north and west of Heligoland up to the 3-mile limits of Denmark and Holland. Over 30,000 mines have been laid and additional mines are being laid.

It is through these neutral waters that almost all submarines have been passing.

A sea attack alone upon German ports or any heavily fortified ports could not succeed against the concealed guns of modern defences.

I have just been informed that preparations are now being made by a combined sea and land attack to force back the German right flank and deny the use of Zeebrugge as a destroyer base, though not yet definitely decided by the War Council; that this would have been done long ago but for disagreements between the Allies.

The German fleet has not left the neighborhood of Heligoland for about a year.

I am aware of but two plans suggested by our Government for preventing the egress of German submarines. These were contained in the department's dispatches of April 17 and May 11, and were answered in my dispatches of April 18 and May 14, respectively.

These same suggestions and many similar ones have been and continue to be made by people of all classes since the beginning of the war. I have been shown the studies of the proposed plans and consider them impractical.

It is my opinion that the war will be decided by the success or failure of the submarine campaign. Unless the allied lines of communication can be adequately protected, all operations on shore must eventually fail. For this reason, and as further described in my various dispatches, the sea war must remain here in the waters surrounding the United Kingdom. The latest information is available here and can be met only by prompt action here. It is wholly impossible to attempt to direct or to properly coordinate operations through the medium of communications, by letter or cable.

Therefore, as requested by you, if I had complete control of our sea forces with the success of the allied cause solely in view, I would immediately take the following steps:

First. Make immediate preparations to throw into the war area our maximum force, prepare the fleet immediately for distant service. As the fleet, in case it does move, would require a large force of protective light craft, and as such craft would delay the fleet's movements, we should advance to European waters all possible craft of such description, either in service or which can be immediately commandeered and put into service; that is, destroyers, armed tugs, yachts, light cruisers, revenue cutters, minelayers, minesweepers, trawlers, gunboats, and similar craft.

Second. Such a force, while waiting for the fleet to move, should be employed to the maximum degree in putting down the enemy submarine campaign and in escorting convoys of merchant ships and troops, and would be in position at all times to fall back on our main fleet if it approached these waters.

Third. Prepare the maximum number of supply and fuel ships and be prepared to support our heavy forces in case they are needed.

Fourth. Concentrate all naval construction on destroyers and light craft. Postpone construction of heavy craft and depend upon the fact, which I believe to be true, that regardless of any future developments, we can always count

upon the support of the British Navy. I have been assured of this by important Government officials.

Fifth. As far as consistent with the above building program of light craft, particularly destroyers, concentrate all other ship building on merchant tonnage. Divert all possible shipping to supplying the Allies.

Sixth. As the convoy system for merchant shipping at present affords better promise than any other means for insuring the safety of lines of communication to all military and naval forces on all fronts, we should lend every support possible to insure success to this, and we should cooperate with British authorities in the United States and here who are attempting to carry out the convoy system.

I believe the above advice to be in accordance with the fundamental principles of military warfare. The first step is to establish here in London a branch of our War Council, upon whose advice you can thoroughly depend. Until this is done, it will be impossible to insure that the part which the United States takes in this war, whether it is won or lost, will be that which the future will prove to have been the maximum possible. It is quite impracticable for me, nearly single-handed, to accumulate all the necessary information, and it is not only impracticable but unsafe to depend upon decisions made in Washington, which must necessarily be based upon incomplete information, since such information can not be efficiently communicated by letter or cable.

This can be assured if I be given adequate staff of competent officers of the required training and experience.

I urgently recommend that they be selected from the younger and most progressive types, preferably War College graduate men, of the type of Twining, Pratt, Knox, McNamee, Stirling, Cone, Coffee, Cotton, King, Pye.

I wish to make it perfectly clear that my reports and dispatches have been in all cases an independent opinion, based upon specific and official facts and data which I have collected in the various Admiralty and other Government departments. They constitute my own conviction, and hence comply with your request for an independent opinion.

That is the message which the Secretary of the Navy characterizes as one of generalities. I should say that not only did I define everything we should do, but that message laid down a policy which was exactly the same as that I laid down in my first dispatch of April 4, 1917; and it was the policy and the means that were carried out for the remainder of the war and upon which we won the submarine campaign.

I think it hardly necessary to comment further upon this message. Every one of the six steps which I recommended to the President in this dispatch could have been and should have been part of the primary war plan which should have been and could have been put into effect on the day we declared war. With the information then available, every one of these steps could have been and should have been foreseen; and if there had been an adequate planning section in the department and if the head of the department had approved the action of such a planning section, some such plan would have been formulated and would have been put into effect at once. The department's witnesses, especially Admiral Badger and Capt. Pratt, have testified that they recommended practically the same measures in March, April, and May, but without success. I had been recommending these very same measures since April 14, 1917, equally without success. Within a very short time after the President had sent this message to me and I had replied the department had acted in the manner recommended in my reply to him, and had adopted the various recommendations as being essential to a successful prosecution of the war against the submarines. It is frankly absurd to claim that I have been contending that I was the only officer in the Navy whose judgment should have been accepted; but it so happened that

I was the officer sent abroad to represent the department and to obtain from the allied admiralities, and from the British Admiralty principally, the information upon which the department could base its action.

It was, therefore, inevitable that the information which I sent should come from British or allied sources. It was, therefore, equally inevitable that the recommendations which I made, and which were in complete agreement with the war experience of the Allies, should be more sound than those made by any other officer, no matter how intelligent or how highly trained, who did not possess this same information, and who did not have this same opportunity of discussing the situation with the responsible heads of the allied navies. No plan, based on insufficient information and incorrect premises, can ever be successful, no matter how logically based upon false premises, how striking, how bold, or how spectacularly attractive it may seem. I am not contending that the officers of the Navy Department were inefficient, or that they failed in any respect to do their duty according to their lights. I am trying simply to make clear that they necessarily could not have had the information that was wholly essential to make decisions involving the details of operations in the war zone, and, for the same reasons they could not intelligently review such decisions. My criticisms are not directed against these officers, who I am confident in every instance were putting forth their best efforts, but against the condition in the department which made it impossible for them to work as efficiently as would otherwise have been possibly the case.

THE PRESIDENT'S MESSAGE WAS IN REALITY AN INDICTMENT OF THE POLICY PURSUED AT THAT TIME BY THE NAVY DEPARTMENT.

I regret extremely that the Secretary of the Navy has seen fit, in introducing this message of the President, to reflect upon the services of the British Admiralty to the allied cause. It was a personal and confidential message, addressed to me, which I had guarded with the greatest secrecy. I would have considered myself guilty of a grave breach of confidence if I had brought the matter before this committee. I am also surprised that the Secretary of the Navy should introduce this message as evidence against me, when the facts which I have just related show that the criticisms of the President bear with even greater force against the Navy Department, as it was then conducted, than against the Admiralty. We can only assume that the President, from the moment that we entered the war, was trying to carry into effect a vigorous and successful prosecution of the war. It seems very probable that the President himself was not familiar at the time with the extent to which the Navy Department was violating the very principles which he laid down; principles which were accepted by the Navy Department almost immediately after his message was sent; principles which were in complete accord with the recommendations which had been made by the department's representative abroad during the previous three months; principles which had been insistently but vainly urged upon the department in these months by the General Board and by Capt. Pratt and other officers in the office of Operations.

The very fact that the department almost immediately took favorable action on many matters which had been recommended long before, shows how the head of the department at that time regarded the President's message. It is hardly possible that there could have been no connection between the President's insistence on boldness and offensive action and the sudden abandonment by the department of its timid, prudent, and defensive policy for one of cooperation with the Allies in the war zone in the measures which alone could and did meet the issue of the submarine campaign.

THE NAVY DEPARTMENT'S ANNOUNCED WAR POLICY.

I have already referred to the fact that one of the consequences of my appeal to Ambassador Page for assistance in presenting the situation in European waters to the department was the announcement by the Navy Department of a policy to govern its action in the war.

Capt. Pratt in his testimony told you how this policy came to be framed and stated that, although not previously formulated, it had been in substance the policy which had governed the department since the beginning of the war and remained its policy until the end. Capt. Pratt also stated that, in response to a request from the State Department for such an announcement of policy, he had himself prepared this letter, and that finally the Secretary's signature was obtained and the reply sent to the State Department. On July 9, this letter was cabled to me for my guidance. This message has already been quoted, but I should like to refer to it again at this time.

The following is a copy of the letter sent by the Navy Department to the State Department:

NAVY DEPARTMENT,
Washington.

Confidential.

SIR: Referring to the cablegram from Ambassador Page in London dated June 23, 1917 (copy attached). After careful consideration of the present naval situation, taken in connection with possible future situations which might arise, the Navy Department is prepared to announce as its policy in so far as it relates to the Allies—

(1) The heartiest cooperation with the Allies to meet the present submarine situation, in European or other waters, compatible with an adequate defense of our own home waters.

(2) The heartiest cooperation with the Allies to meet any future situation arising during the present war.

(3) A realization that while a successful termination of the present war must always be the first allied aim and will probably result in diminished tension throughout the world, the future position of the United States must in no way be jeopardized by any disintegration of our main fighting fleets.

(4) The conception that the present main military rôle of the United States naval forces lies in its safeguarding the lines of communication of the Allies. In pursuing this aim there will, generally speaking, be two classes of vessels engaged—minor craft and major craft—and two rôles of action; first offensive, second defensive.

(5) In pursuing the rôle set forth in paragraph (4), the Navy Department can not too strongly insist that in its opinion, the offensive must always be the dominant note in any general plan of strategy prepared. But, as the primary rôle in all offensive operations must perforce belong to allied powers, the Navy Department announces as its policy that, in general, it is willing to accept any joint plan of action of the Allies, deemed necessary to meet immediate needs.

(6) Pursuant to the above general policy, the Navy Department announces as its general plan of action the following:

(a) Its willingness to send its minor fighting forces, comprised of destroyers, cruisers, submarine chasers, auxiliaries, in any numbers not incompatible with home needs, and to any field of action deemed expedient by the joint allied admiralities, which would not involve a violation of our present State policy.

(b) Its unwillingness, as a matter of policy, to separate any division from the main fleet for service abroad, although it is willing to send the entire battle-ship fleet abroad to act as a united but cooperating unit when, after joint consultations of all admiralities concerned, the emergency is deemed to warrant it, and the entire tension imposed upon the line of communications due to the increase in the number of fighting ships in European waters will stand the strain upon it.

(c) Its willingness to discuss more fully plans for joint operations.

Sincerely, yours,

JOSEPHUS DANIELS.

The honorable the SECRETARY OF STATE.

I do not desire to discuss this policy at length, and will content myself with reading you the reply which I made to the Navy Department on the 16th of July, 1917. It will be noted that my reply to the department of this date contained practically the same recommendations as the message which I had sent to the President a week before. My reply was as follows. That document is perfectly well known, and has been inserted in the record. It is a letter from the Navy Department defining the policy which the State Department asked them to define. I do not desire to discuss this policy at length, but I will read this paragraph from the letter:

17. One of the greatest military difficulties of this war, and perhaps of all allied wars, has been the difficulty of coordination and cooperation in military effort. I am aware of a great mass of information in this connection which it is practically impossible to impart except by personal discussion.

That is an exceedingly long reply, and as I have stated all that is in it I do not think it is necessary to read it, but I should like to have it included in the record.

I should, however, like to refer to an unfortunate omission in a quotation made by the Secretary of the Navy in one of the paragraphs, in discussing or explaining to the Navy Department the necessity for an allied centralization of control. I stated:

It is unquestionable that efficiency would be greatly if any one of the Allies—Italy, France, England, or the United States—were selected to direct all operations, the others merely keeping the one selected fully informed of their resources available, and submitting to complete control and direction in regard to the utilization of these resources.

That is simply in explanation of the necessity for allied control. Unfortunately the Secretary of the Navy has used that message to support a statement to the effect that I was in favor of turning over the entire control to Great Britain. He quoted only the first two lines, which are as follows:

It is unquestionable that efficiency would be greatly improved if any one of the Allies—

And that is as far as he quoted, and then added to it the words: were given complete control of our operations.

Omitting from it the words "Italy, France, England, or the United States were selected to direct all operations."

All that I can say is that the Secretary in numerous instances has been equally unfortunate in making quotations from my letters.

From: Vice Admiral Sims.

To: Secretary of the Navy.

Subject: Concerning policy of United States naval cooperation in war and allied subjects.

1. The department's cablegram quoting a letter which had been addressed to the Secretary of State concerning naval policy in relation to the present war was received on July 10.

In view of the nature of certain parts of the policy set forth therein, I wish to indicate the general policy which has heretofore governed my recommendation.

2. I have assumed that our mission was to promote the maximum cooperation with the Allies in defeating a common enemy.

All of my dispatches and recommendations have been based on the firm conviction that the above mission could and would be accomplished, and that hence such questions as the possibility of postwar situations, or of all or part of the Allies being defeated and America being left alone, were not given consideration.—In fact, I can not see how we could enter into this war wholeheartedly if such considerations were allowed to diminish in any way the chances of allied success.

3. The first course open to us which naturally occurs to mind is that we should look upon our service as part of the combined allied service, of which the British Grand Fleet is the main body, and all other allied naval forces disposed throughout the world as necessary branches thereof.

The conception views our battleship fleet as a support or reserve of the allied main body (the British Grand Fleet), and would lead to utilizing our other forces to fill in weak spots of and to strengthen allied lines, both offensively and defensively, wherever necessary.

Such a course might be used as a disintegration of our fleet, and it is only natural, therefore, that hesitation and caution should be left in its adoption.

4. I have felt, however, that it was possible to accomplish our mission without in any way involving the so-called disintegration of our fleet as a whole.

In the first instance I have assumed that our aim would be to project, or prepare to project, our maximum force against the enemy offensively.

5. An estimate of the situation shows clearly that the enemy is depending for success upon "breaking down the Allies' " lines of communications by virtue of the submarine campaign.

A necessary part of such a plan is to divert strength from the main fleet and from antisubmarine operations by such means as coastal raids, threats of landing operations, air raids, and attacks on hospital ships, which last necessitates destroyer escort for such vessels.

The submarine campaign itself, while it is of necessity concentrated primarily on the most vital lines of communications, is, nevertheless, carried out in such a manner as to lead the Allies to disperse and not concentrate their inadequate antisubmarine forces.

The Allies are, of course, forced to contemplate at all times and hence provide against the possibility of another main-fleet action.

6. A study of the submarine situation, the number of submarines available to the enemy, and the necessary lines of the Allies' communications for both army and navy, as well as civil needs, shows clearly that the enemy must direct his main effort in certain restricted areas.

These areas, as has repeatedly been reported, are included, approximately, in a circle drawn from about Ushant to the north of Scotland. The most effective field for enemy activity is, of course, close into the Irish Sea and channel approaches, where all lines must focus.

But, as stated above, the enemy also attacks occasionally well out to sea and in other dispersed areas with a view of scattering the limited antisubmarine forces available.

It therefore seems manifest that the war not only is but must remain in European waters, in so far as success or failure is concerned.

7. Speaking generally, but disregarding for the moment the question of logistics, our course of action in order to throw our main strength against the enemy would be to move all our forces, including the battleship fleet, into the war area.

8. In view of the nature of the present sea warfare as affected by the submarine, such a movement by the battleships would necessitate a large force of light craft—much larger than our peace establishment provided. In addition to all destroyers, adequate protection of the fleet would require all other available light craft in the service, or which could be commandeered and put into service; that is, submarines, armed tugs, trawlers, yachts, torpedo boats, revenue cutters, mine layers, and mine sweepers, and in fact any type of small craft which could be used as protective or offensive screens.

9. In view of the shipping situation as affected by the submarine campaign. It has been impossible to date to see in what way our battleships could be supplied in case they were sent into the war area. This refers particularly to oil-burning vessels. It would therefore seem unwise to recommend such a movement until we could see clearly far enough ahead to insure the safety of the lines of communication which such a force would require.

10. It is to be observed, however, that even in case the decision was made to move the battleships into the war area it would unavoidably be greatly delayed both in getting together the necessary screening forces and also in getting such craft across the Atlantic.

In the meantime, and while awaiting a decision as to the movements of the battleship fleet, the submarine campaign has become so intensive and the available antisubmarine craft have been so inadequate to meet it, that the necessity for increasing the antisubmarine forces in the war area to the maximum possible extent has become imperative.

11. As long, therefore, as the enemy fleet is contained by the stronger British fleet in a position of readiness, it would not seem a disintegration of our fleet to advance into the war area all the light craft of every description which would necessarily have to accompany the fleet in case it should be needed in this area.

Such movements of the light craft would not in any way separate them strategically from the battleships, as they would be operating between the enemy and our own main body, and based in a position to fall back as the main body approached or to meet it at an appointed place. This advance of light forces, strategically, would mean no delay whatever to our heavy forces; should the time come for their entry into the active war zone.

12. Another very important consideration is the fact that, pending the movement of the battleships themselves, all of the light forces would be gaining valuable war experience and would be the better prepared for operations of any nature in the future, either in connection with the fleet itself or independently.

It is also considered that it would no constitute a disintegration of our fleet to advance into the war zone, in cooperation with the British grand fleet or for other duty, certain units of our battleship fleet. These would merely constitute units advanced for purpose of enemy defeat, and which would always be in a position to fall back on the main part of our fleet or to join it as it approached the war zone.

It is for this reason that I recommended on July 7, 1917, that all coal-burning dreadnaughts be kept in readiness for distant service in case their junction with the Grand fleet might be deemed advisable in connection with unexpected enemy developments.

It would, of course, be preferable to advance the entire fleet, providing adequate lines of communication could be established to insure their efficient operation. At the present time there is a sufficient coal supply in England to supply our coal-burning dreadnaughts, but the oil would be a very difficult problem, as it must be brought in through the submarine zone.

When notified that the *Chester*, *Birmingham*, and *Salem* were available for duty in the war area I recommended, after consultation with the Admiralty, that they join the British light cruiser squadrons in the North Sea, where there is always a constant demand for more ships, especially to oppose enemy raiding and other operations aimed at dispersing the allied sea forces.

In view of the department's reference to the Gibraltar situation, and also in consideration of the sea-keeping qualities of the seven gunboats of the *Sacramento* class, it was recommended that they be based on Gibraltar for duty in assisting to escort convoys clear of the straits, and particularly as

It would seem to be sound reasoning that the most effective defense can be afforded to our home waters is an offensive campaign against enemy which threatens those waters. Or in other words, that the place which protection is necessary—that is, where the enemy is operating and continue to operate in force.

has been stated in numerous dispatches, it is considered that home waters threatened solely in the submarine zone; in fact, are being attacked solely in that zone and must continue to be attacked therein if the enemy is to be met against us as well as against the European Entente.

The number of available enemy submarines is not unlimited, and the difficulties of obtaining and maintaining bases are fully as difficult for submarine as surface craft.

The difficulties experienced by enemy submarines en route and in operating far from their bases as they now do are prodigious.

Operations on our coast without a base are impracticable, except by very small numbers for brief periods, purely as diversions.

In view of our distance from enemy home bases, the extent of our coast line, the distances between our principal ports, it is a safe assumption that if we could induce the enemy to shift the submarine war area to our coasts his operations would be assured, and his present success would be diminished more than in proportion to the number of submarines he diverted from the more accessible areas where commerce necessarily focuses.

The department's policy refers to willingness to extend hearty cooperation to the Allies and to discuss plans for joint operations, and also to its readiness to consider any plans which may be submitted by the joint allied admiralities.

I submit that it is impossible to carry out this cooperation to discuss plans with the various admiralities, except in one way, and that is to establish what might be termed an advance headquarters in the war zone composed of department representatives upon whose recommendations the department can depend. This would refer to exactly the same procedure as is now carried out in the Army; that is, the general headquarters in the field being the advance headquarters of the War Department at home, and the advance headquarters must of necessity be in a certain area of discretion and freedom of action as concerns the details of measures necessitated by the military situation as they arise.

The time element is one of the most vital of all elements which enter into military warfare, and hence delays in communications by written reports, together with the necessity for secrecy, render it very difficult to discuss plans over long range. The enemy secret service has proved itself to be of extraordinary efficiency.

Moreover, I believe it to be very unsafe to depend upon discussion of military matters by cable, as well as by letter. The necessary inadequacy of written or verbal communications needs no discussion. The opportunities for misunderstandings are great. It is difficult to be sure that one has expressed clearly his meaning in writing, and hence phrases in a letter are very liable to misinterpretation. They can not explain themselves.

One of the greatest military difficulties of this war, and perhaps of all modern wars, has been the difficulty of coordination and cooperation in military operations. I am aware of a great mass of information in this connection which it is practically impossible to impart except by personal discussion.

It is unquestionable that efficiency would be greatly improved if any one of our Allies—Italy, France, England, or the United States—were selected to direct all operations, the other merely keeping the one selected fully informed of their resources available, and submitting to complete control and direction in regard to the utilization of these resources.

If the above considerations are granted, it then becomes necessary to decide as to the best location in which to establish such advanced headquarters that might be called an advance branch war council at the front; that is, an advanced branch upon whose advice and decisions the war council itself largely depends.

It is fully realized that the pressure and the influences which must have been brought to bear upon the department from all of the Allies, and from various and possibly conflicting sources.

I also realize that my position here in England renders me open to suspicion that I may be unduly influenced by the British viewpoint of the war. It should be unnecessary to state that I have done everything within my ability to maintain a broad viewpoint with the above-stated mission constantly in mind.

19. From the naval point of view it would seem evident that London is the best and most central location in the war area for what I have termed above the advance branch of our naval war council.

The British Navy, on account of its size alone, is bearing the brunt of the naval war, and hence all naval information concerning the war therefore reaches and centers in London.

It will be quite possible for all of our advanced headquarters' staff, or parts or divisions thereof, to visit Paris and other allied admiralities at any time.

I wish to make it quite clear that up to date it has been wholly impossible for me, with one military aide, to perform all of the functions of such an advanced branch of the department.

As stated in my dispatches it has been evident for some time, that I have been approaching a state in which it would be physically impossible to handle the work without an increase of staff.

The present state of affairs is such that it is quite within range of possibility for serious errors to occur which may involve disaster to our ships, due to the physical impossibility of handling the administrative and other work with the thoroughness which is essential to safety.

20. I consider that a very minimum staff which would be required is approximately as follows. More officers could be well employed with resulting increase of efficiency.

(1) One chief of staff, who should be free to carry on a continuous estimate of the situation, based upon all necessary information. He would be given the freedom of the operations department of the British and French admiralities.

(2) An officer, preferably of the rank of commander, for duties in connection with shipping and convoy to handle all the numerous communications in relation to the movements of American shipping, particularly military shipping, and also other shipping carrying American troops.

(3) An officer, at least a lieutenant commander, for duties in connection with antisubmarine division operations in order to insure perfect cooperation in that field of work between our service and other allied services.

(4) An officer of all-around ability and discretion for duties in connection with general military intelligence. He should be in constant touch with the secret service departments of the admiralities to insure that all military intelligence which in any way affects the Navy Department or our forces is properly and promptly acted upon.

(5) At least two lieutenants or lieutenant commanders of the line in my own office in connection with general administrative questions in addition to the one now available. The necessity for these additional officers is imperative.

(6) One communication officer to take general charge of codes and communications both with the department at home, the allied admiralities, and with the various bases of our forces in the war area (at present Queenstown, Brest, Bordeaux, St. Nazaire, London, and Paris).

(7) A paymaster, to have complete charge of all financial matters connected with our naval organization abroad. This officer should be in addition to Paymaster Tobey, who is performing necessary and invaluable service on my staff in connection with all logistical questions.

WM. S. SIMS.

CONTRAST BETWEEN PRESIDENT'S POLICY AND NAVY DEPARTMENT'S POLICY IN JULY, 1917.

Before going further, I should like again to contrast certain features of the policy announced by the President and the policy of the Navy Department.

The President, for example, said:

In my view this is not a time for prudence but for boldness, even at the cost of great losses.

The Navy Department's policy included the following:

(1) The heartiest cooperation with the Allies to meet the present submarine situation, in European or other waters, compatible with an adequate defense of our home waters.

(2) A realization that while a successful termination of the present war must always be the first allied aim and will probably result in diminished tension throughout the world, the future position of the United States must in no way be jeopardized by any disintegration of our main fighting fleets.

Contrast this latter expression with the President's declaration to the officers of the fleet on August 11, 1917, when he said that he would be willing to sacrifice half the combined American and British fleets in order to accomplish the destruction of the "nests" of German submarines.

The emphasis in the President's mind, as it can be judged from his utterances which have been introduced by the Secretary of the Navy, was upon immediate offensive action against the enemy. He rightly conceived the military mission of the Navy to be the defeat of the submarine campaign, and clearly indicated his desire that no effort and no sacrifice be spared to bring about this result.

The Navy Department, however, even in this definite statement of policy, clearly set forth that any cooperation with the Allies was conditioned on two things; first, an adequate defense of our own home waters; and, second, that the future position of the United States must in no way be jeopardized by any disintegration of our main fighting fleets. That is to say, the President was decidedly not for safety first, but the department was decidedly for safety first.

IMPRACTICABILITY OF BLOCKING GERMAN BASES.

It is entirely beside the point that the specific operation suggested by the President for blocking in the German submarines should have been impracticable of accomplishment under the circumstances, because there were many very technical elements governing the situation concerning which he could not be expected to be accurately informed. However, the aggressive policy advocated was, of course, the correct one. The sacrifice of half the combined British and American fleets would not have been too great a price to pay if it would have suppressed the submarine and ended the war; but the attempt, of course, would have been unwise if, in the opinion of the responsible naval experts concerned, it would certainly have failed. In September, 1917, these experts discussed this very question at a meeting of the Allied Naval Council, which was attended by Admiral Mayo, commander in chief of the Atlantic Fleet, who, in his report of September 8, 1917, states as follows. That is a long, rather technical quotation, which I will ask permission to include in the record, and I will ask permission to read a significant part of it.

Senator KEYES. Very well.

Admiral SIMS. I may say that in order to block the submarine ports it required about 40 old battleships and 40 old cruisers to be dismantled and filled with concrete and sunk in the ports. Admiral Mayo's report discusses this question, and it finally winds up in a cable dispatch which he sent on September 5, 1917, in addition to his report, in which he expresses his opinion of the project as follows: The Allies were asked, each one of them, if they would supply

their quota of these old ships, the British to supply 18 old battleships and 13 cruisers, the French 5 battleships and 12 cruisers, the Italians 3 battleships and 3 cruisers, the Japanese 2 battleships and 7 cruisers, and the United States 12 battleships and 8 cruisers, and Admiral Mayo says:

Request information whether United States willing in case there appears reasonable prospect success supply 12 oldest battleships and 8 oldest cruisers out of total of 40 battleships and 45 cruisers to be sunk together with large number hulk and barges in blocking German channels.

Admiral Mayo continues:

Personally believe nothing will come of this proposition, as consider full examination of difficulties will show impossibility of success.

The quotation from the report of Admiral Mayo referred to, submitted by Admiral Sims, is here printed in full as follows:

Item 1. The question of a close offensive in German waters.—8. (a) The first sea lord stated in general terms that an offensive operation against German bases in the Helgoland Bight had been for some time under consideration by the British Admiralty, and said that it was essential to know, before going further, whether the powers represented would wish to have proposed in detail a scheme which would involve the sinking of approximately the following allotments of old ships, as merchant vessels could not be spared for the purpose:

Governments.	Battle-ships.	Cruisers.
British.....	18	13
French.....	5	12
Italian.....	3	3
Japanese.....	2	7
United States.....	12	8
Total.....	40	43

(b) It was further stated that the operation in mind was a very difficult one and that he would not go into details at this time. The primary object was to block submarines in by blocking up the German exits into the North Sea, no other object being worth the risk involved. It was repeated that further development of such a scheme was wholly dependent upon the willingness of the Governments concerned to furnish the vessels indicated, which were to be loaded with concrete before sinking and were to be supplemented in the shallower parts by hulks and barges either made of concrete or partly filled with concrete.

(c) The United States representative was unable to state the views of his Government. The French representative thought it might be possible. The Russian representative made a plea for a vigorous offensive in order to relieve the pressure now being put upon Russia by the enemy. The Japanese representative thought his country might be willing. The Italian representative demurred, as he thought his Government considered that the Italian ships mentioned were of very great use in their present employment.

(d) The conference, after discussion, agreed that the question should be carefully considered by the Governments concerned, and that they should indicate in due course to the British Admiralty the contribution of old warships which they would be prepared to furnish should the contemplated operation appear practicable after due consideration of all the difficulties involved.

IRRELEVANCY OF CRITICISMS OF THE BRITISH ADMIRALTY.

In this connection let me say, too, that I am in no way disposed to defend the errors and mistakes of the British Admiralty. Anyone who has read the literature which has been published by eminent British officers about the conduct of the war by the Admiralty will

have no doubt at all that the Admiralty made many mistakes, in some cases violated military principles, and were responsible for delays which were perhaps as long and as serious as those caused by the mistakes and delays of our Navy Department. This is not, however, an investigation of the conduct of the war by the British Admiralty. The mistakes committed by the Admiralty can hardly be brought forward as a justification for the same or similar mistakes by ourselves. We were in a position to have profited by their mistakes, instead of repeating them, and if the department or the Secretary now alleges that our mistakes are justified because we only made the same kind of mistakes that the British did he is merely saying in another way that we failed to profit by our opportunity. We failed to learn by the mistakes of others and had to acquire by the bitterest kind of experience and the most serious kind of blunders the knowledge of how we should conduct our activities in this war. This could have been learned immediately and quickly if an adequate force of officers had been sent to the other side, if the Secretary had showed a greater appreciation of the meaning of cooperation and had been a little less confident of the ability of himself and his own advisers, many thousand miles from the war zone, without detailed or intimate knowledge of the situation or of past war experience, to make the detailed dispositions of our forces abroad and to direct from Washington the details of their operations.

Of course, the British Admiralty made mistakes. I undoubtedly had difficulties with the Admiralty in getting them to recognize points which seemed self-evident at the time. I found in many cases there was the same conservatism, the same overcautious prudence and hesitancy to realize new conditions, which characterized the action of our own department in the early months of the war, but I also found in the Admiralty a spirit of willingness to listen to criticism, to face facts frankly, and to cooperate whole-heartedly, which I usually found lacking in my relations with the Navy Department. The Admiralty at least were willing to learn by their own mistakes. In the first months of the war I could hardly escape the conviction that the department at home refused to believe that they could make mistakes and refused to profit by the experience in the war zone. This conviction has only been confirmed by the testimony which the Secretary has given before you and in which he has tried to make it appear that the department was infallible, that it was possessed of superhuman wisdom, that it had a broad viewpoint, which the officers who were in the war zone, possessed with full information, with the advantage of full discussion with the allied naval leaders, could not possibly have.

When this broad viewpoint, of which a number of witnesses have spoken, is examined and when the Secretary's own testimony is examined, it appears to resolve itself into three concrete things:

First. A policy of particularism, designed to protect the American coast and American shipping against an enemy that was 3,000 miles away, and to hold back craft needed in the war zone in order to patrol the Atlantic coast 3,000 miles from the enemy, and to safeguard the Atlantic Fleet in its anchorage in the Chesapeake Bay.

Second. An unwillingness to regard the winning of the war as the main issue, but a desire to look forward to some future war and to subordinate the naval activities in the war against Germany to what

it might consider the requirements might be in this future war, although it was evident at the time that the victory of ourselves and the Allies over Germany and the enhanced prestige that that would give us would make any such future war most improbable, at least for a considerable period of time.

Third. A secret submission to the hypnotic seductiveness of the fallacy of a "royal road to victory" of discovering some new, and hitherto unsuspected, weapon or means of warfare which would at one fell swoop put an end to the submarine campaign, reduce the enemy to hopeless confusion and bring a triumph of victory to American arms amid the enthusiasm of the crowd and the fanfare of the beating tom-toms.

I leave it to the judgment of this committee to determine as to the wisdom or the significance of this so-called broader viewpoint of which the Secretary has spoken.

CONDITIONS IN THE DEPARTMENT IN THE FIRST THREE MONTHS OF THE WAR.

Delay of the department in building new destroyers.—Before going on to deal further with the cablegram which the President sent me on July 4, 1917, and with the incidents connected therewith, I should like to review briefly one essential feature of the policy of the department during the early months of the war, because it is so strikingly typical of the conditions under which the department was attempting to carry on operations.

As I have already pointed out, it should have been possible for at least one and possibly two years to have foreseen that, in the event of our entrance into the war, our naval activities would be chiefly devoted to combatting submarines. All the officers who have appeared before this committee have so testified, and have also testified that, in their professional opinion, it was very probable, at least after 1916, that the United States would be drawn into the war. Consequently, it must follow logically that, if any effort had been made in the Navy Department to prepare the Navy especially for this war, steps should at once have been taken to increase the number of available antisubmarine craft. Capt. Pratt, in his testimony, stated (p. 2947):

I think it was fairly well understood by all naval men that practically the only useful type * * * was the destroyer.

A moment later the chairman asked him:

After the Battle of Jutland should we not have intelligently considered the situation and emphasized * * * the antisubmarine warfare.

Capt. PRATT (p. 3948). Yes, sir; I think it would have been wise to have looked forward in that direction.

He then went on to explain that if we had begun in 1916 to get the existing naval vessels ready for action, and had laid down antisubmarine forces—

We could have quickly driven a strong force against the German submarines in April, 1917.

He did not know, however, that the Secretary had ever sought to impress on Congress or the department the importance of any such steps.

The General Board's building program, approved by Congress in 1916, provided for the building of 50 destroyers in addition to dreadnaughts and other craft. No effort was made even to accelerate the building of the destroyers authorized in this program. After the breach of relations, in February, 1917, a number of officers in the department began almost immediately, as they have testified, to urge the necessity of increasing the number of antisubmarine craft. Until the month of July, 1917, the General Board, Admiral McKean, Capt. Pratt, Capt. Schofield, and many other officers were constantly submitting memoranda urging the necessity of increasing the number of such antisubmarine craft, and particularly destroyers. This was included in the General Board's recommendations of May 3, 1917, in which no action was taken. Inasmuch as the German major fighting force was successfully contained in the German ports, it must have been apparent that we would have had no real need during the war for any additional major forces; and it should have been the part of wisdom from the first, if any such policy as that outlined by the President were to be carried out, to have postponed the building of these capital ships and concentrated all effort upon the building of destroyers and other light craft. But it was only with the greatest difficulty that the officers in the department, who realized the situation, were able to get this done.

I can not say too much, incidentally, for those officers of the department that fought from the beginning of the war against the forces we were criticizing, to try and get something done to prepare this navy for war. Their testimony shows it very clearly.

Vain efforts of officers in department to secure early decision on building program.—Capt. Pratt, for example, in his testimony, submitted the memorandum which he drew up on June 7, 1917, making these recommendations. He said, in his testimony, that this report was ultimately accepted, and that the building program was revised in accordance with the suggestions made therein. He went on to say, however (p. 2834):

My views were adopted because I was very soon after appointed to * * * the section which carried out the execution of these very matters.

Page 2838:

I know it was carried out.

In this memorandum, also, Capt. Pratt referred to (p. 2839):

The importance and seriousness of this subject, together with the necessity of arriving first of all at a correct naval policy—

Note that this is July, 1917, he is talking about arriving at a correct naval policy—

which shall coordinate its efforts with the efforts of those engaged in supplying the tremendous wastage in the cargo tonnage, caused by the submarine campaign * * *. There is a decided difference of opinion as to the naval policy to be pursued. This letter is not in accord with the general views of the office.

There we have a distinct statement from the Assistant Chief of Naval Operations with the recommendation that they shall push forward the building of submarine craft, in accordance with the general views of the Office of Naval Operations, but still they tell us that they had adequate working plans for carrying on this work.

In other words, two months after the war had begun, Capt. Pratt was still striving to get the department to adopt a correct naval

policy, and he indicated that, in his opinion, not only had no such policy been adopted, but that the policy which was ultimately adopted was at that time only a minority opinion, held by himself and a few other of the younger officers in the department. In his testimony, as well as in the testimony of the other officers who served in the department during the war, it was made clear that everyone was overwhelmed with administrative duties; that there was little time for thinking or for planning; that those plans which existed were chiefly ideas which had been formulated in the minds of a few of the officers in the department, such as Admiral Benson, Admiral McKean, Capt. Schofield, Capt. Pratt, and others. These plans were carried into execution, not by having them officially approved, by establishing them as a guide for the whole of the activities of the department, but they were carried into effect by the individual efforts of these individual officers. Consequently, it inevitably resulted that each one of these measures, which might be considered a part of the department's war plans, were carried into effect individually in piecemeal, and there was very little coordination, or very little systematic thinking and planning as to the activities of the department as a whole. This is particularly apparent in the case now under discussion of the building of the new destroyers.

I would like here again to apologize to the committee for the repetitions that appear in this paper. So crowded were we for time in getting up this rebuttal statement, that it was only finished and off the mimeograph at 4 o'clock yesterday, and I had to leave at 4.30 o'clock for Washington, and I had never read it before except in the rough.

In a personal letter which Capt. Pratt addressed to me on June 11, 1917, he spoke of his difficulties in trying to get this plan through, and said:

I am busy, but do not like administrative work, but, unfortunately, you can not separate the two in this office. I have had several powwows with Chase and other authorities. My ground is that we should strictly confine ourselves to the decision of the mission and then, in the order, look out for the details of the execution. The principal trouble is that at the moment one gets mixed up too much with administration * * * and that is fatal, for it takes the initiative from the place where it belongs. I have had many a discussion over that very point, and if I have any criticism to make of this office that would be it. There is such a thing as being too damned efficient and wanting to do it all yourself, or rather thinking that nobody can do it quite as well, or, what is as bad, thinking that it won't be done well unless you lay out the details of the scheme. I have tried to handle personally all the cables that came in from you. * * * Everybody seems so damned pessimistic, the Germans are going to win, and so forth, and so forth. It is all tommyrot. They can't so long as we do our best.

I apologize for the expressions used by Capt. Pratt, but this is a personal letter. It shows, however, the condition that the Navy Department was in.

In his testimony, Capt. Pratt related how, during the months of June and July, 1917, he himself, and the other officers in Operations, continued to use every means they could to obtain the approval of a plan for building new destroyers, and for accelerating the construction of those already authorized. All the officers who appeared in the defense of the department, testified that the Congress at all times displayed a willingness to appropriate any money that might be needed, and to authorize such construction as should be recom-

mended. If the program was not adopted earlier, and if new vessels were not laid down sooner than they were, the responsibility therefor can not be laid on Congress, but rests on the department for its failure to recommend earlier this plan which the General Board, Capt. Pratt, and Admiral McKean have testified that they had been recommending for some months. Capt. Laning, in his testimony, gave you the memoranda which he and Capt. Schofield submitted to the Secretary of the Navy on June 21 and 22, 1917, calling attention to the vital necessity for building more destroyers as rapidly as possible. In his testimony before the committee, Capt. Pratt implied that this was ultimately done by the department in accordance with these recommendations. He was careful to go on and say, however, that it was done only because he and the officers who were associated with him in the department kept hammering on it insistently, in spite of all opposition and every discouragement.

How the decision to build destroyers was finally obtained.—The evidence introduced before this committee shows in detail how the department's decision to build additional destroyers was finally obtained.

In his testimony, Capt. Pratt also submitted the report of the Board on Devices and Plans, of which he was the head, and which was composed of younger officers in the department. He said (p. 2844) :

We did not submit our plans finally until July 6, 1917 * * *. In doing so we went beyond our instructions a bit and took into consideration everything which could be done in every way. We put forth a plan which the Secretary signed immediately, adopting a very extensive plan for the shifting of the entire battleship program to a destroyer program.

In this report to the Secretary of the Navy the board stated, among other things (p. 2845) :

The board now considers it a duty to bring to your attention the urgent need of immediately securing an adequate supply of material required by an aggressive antisubmarine campaign and of the formulation of plans to impress into service at the earliest possible moment all available United States vessels that will be of use in offensive operations against enemy submarines.

Again I invite attention to the fact that here in July they are writing a report to the Secretary urging him to take an aggressive antisubmarine policy and to bring about the formulation of plans to handle those destroyers.

In regard to this matter, Capt. Pratt wrote a letter to me, which I will not read as it repeats a good deal of what has been said before.

Senator KEXES. Do you wish that put in?

Admiral SIMS. Yes. It simply tells the number of destroyers called for and other ships. It is rather technical.

(The letter referred to is here printed in the record as follows:)

Another thing McKean, Schofield, and I have been fighting tooth and nail is to get our building program modified so that our building efforts will be directed at putting in the water at the utmost speed as many ships, similar to the 750-ton destroyers, or something like that, as possible. In other words, every effort was to be directed at producing antisubmarine craft at the expense of every other type * * *. The General Board was for a speeding-up program only. The bureaus did not approve; but I was appointed the head of a board whose mission was "To consider all plans and devices concerning the submarine war." The upshot of it was that this board, with a lot of youngsters on it, recommended 200 submarine destroyers, and, somehow, the Secretary approved it. We had already prepared the letter for his approval and the forwarding letter

to the bureaus. They went up in the air when the blow descended * * *. A joint letter (from two of the bureaus) followed in which we were discredited. But it was fought out, and the admiral went to the mat on it yesterday, with the result that our building program calls for 116 destroyers of the standard type and 180 of the type we recommended. In other words, 256 craft. I wish they were in the water right away, but it is better this than nothing. I did not think we would get it, but there you are.

In other words, it was not until July 20, 1917, that the approval of the department had been obtained to switch the building program to a concentration on destroyers. That is four months after the war started. In his testimony before this committee, Capt. Pratt, and it may be added also Admiral McKean, gave interesting details as to how this result was accomplished. On July 14, 1914, the board of which Capt. Pratt was the head, submitted—

Its recommendations as to efforts which should be made in the endeavor to put an end to the submarine menace, with particular reference to the recommendation for the construction of 200 destroyers.

These recommendations were forwarded to the Chief of Naval Operations, in response to his verbal instructions of July 14, asking for the reasons for such recommendations (p. 2854).

Even at this late date, it was therefore still necessary for the department to be convinced of the reasons for concentrating its efforts on a program designed to meet the German submarine campaign. In its report of July 14 the board gave the reasons for these recommendations (p. 2854b, Capt. Pratt's testimony).

I should like to include those recommendations for the technical people who read this, but I do not think it is necessary to take up your time with them.

Senator KEYES. Very well.

(The recommendations referred to are here printed in the record as follows:)

In making the above recommendations, the board was actuated by the following reasons:

(a) The seriousness of the present situation. Every report from abroad indicates that the present submarine situation is extremely serious. This is a matter of fact.

(b) The statements from abroad that vessels of the destroyer type * * * are the best antisubmarine craft afloat.

(c) The reiterated statements, both from our own officers operating abroad and from foreign officers, that one of the most important factors is time, necessitating speed in building and speed in placing these ships, which can be successfully operated against submarines, in the war zone.

(d) The information received from abroad that, while the 110-foot chasers will be used against the submarine, as will also be any type of craft which can keep the sea and is not too valuable, still it is not an unqualified success. It is more of a than it is a desirable sea-keeping antisubmarine craft.

(e) The belief that the standardized type can be developed which can outspeed the present destroyer policy.

(f) That what was needed now was speed in construction and standardization, not improvement (with an eye to the future).

(g) The knowledge that England has been forced to develop a type especially for antisubmarine work.

(h) The belief that drastic and perhaps novel methods would have to replace conservative estimate if we were to grasp the present situation in time.

(i) The conviction that the antisubmarine destroyers * * * would be extremely useful not only now, but in the future.

(j) The conviction that the present established naval building policy would have to be modified; that a new policy would have to be decided on and established; and that no policy could succeed unless the will to drive it through at all cost were there.

Page 2854c. In further substantiation of these reasons, the board quoted, or embodied, practically the whole of Capt. Pratt's memorandum of June 7, 1917, already mentioned; or, that is, five weeks after this memorandum was presented no action had yet been taken upon it. On July 19, 1917, Admiral McKean submitted a memorandum for the Chief of Naval Operations and the Secretary again pointing out the necessity for pushing the destroyer program at all costs. The tone of this was exactly the same as that of the memoranda referred to by Capt. Laning in his testimony, which were submitted on June 21 and June 22, 1917, by Capt. Laning and Capt. Schofield.

Hence, in spite of the urgency of the situation and the clearness with which this situation was set forth by the officers in Operations in June, 1917, it was still necessary for Admiral McKean a month later in almost the same terms to urge on the responsible heads of the department the adoption of the same identical policy. This is the more singular as the policy was one so obviously wise that it is hard to understand why it had not been adopted on the day we declared war, three and one-half months before, if, indeed, it can be considered justifiable on the part of the department to have postponed so necessary a step of preparedness for the kind of warfare we would have to fight until the time of the actual declaration of war. This memorandum prepared by Admiral McKean on July 19, 1917, was quoted by Capt. Pratt in his testimony before this committee (p. 2854P).

Among other things, Admiral McKean wrote:

With an earnestness beyond expression, backed by a conviction that has endured from the first, I ask that we meet this great world crisis by contributing our maximum national effort in building, manning, and fighting destroyers to drive enemy submarines from the sea. * * * The question of types may rest for the moment while we make the great decision to do our utmost. Let it not be said by posterity that we, seeing our duty, hesitated until too late, or that we failed to distinguish essential from incidental effort. Two hundred destroyers would mean victory for us. They may be had within a year and a half. The power to accomplish will follow the decision to accomplish. Let us decide.

You can hardly imagine anything more energetic than that.

Here Admiral McKean states what is, in brief terms, the whole point of the criticisms directed against the department's conduct of the war. They did fail to distinguish essential from incidental effort. They failed to act upon the very policy which Wilson so forcibly set forth in his message to me and in his speech of August 11, 1917, quoted by the Secretary of the Navy. This failure was not due to any lack of effort on the part of officers serving in the Office of Naval Operations. They have explained in full detail with what energy and with what persistence they struggled to secure this decision. Congress, too, was perfectly willing to grant the money necessary. Yet it was not until July 20, 1917, that the contracts were let for the 76 destroyers which were built from funds authorized by Congress on March 4; that is, four and one-half months had passed after Congress had made the money available before the destroyers were contracted for by the department.

Results of the delay of the department in reaching a decision.—In view of the testimony given by the department's own witnesses, it seems hardly necessary to state that these contracts should have been let in March, 1917. As a matter of fact, the contracts for 15 destroy-

ers were let in March, and some 15 others were approved at various times in May and June. But the greater part of the 106 destroyers, either authorized in 1916 or on March 4, 1917, were not contracted for until the 20th of July, 1917. Similarly, as Congress did not appropriate the money for the additional program of 150 destroyers until October 6, 1917, it is a fair assumption that this delay was due to the failure of the department to state its needs earlier. The contracts for these 150 destroyers were let between October 9 and October 15, 1917. (These dates are taken from Admiral McKean's testimony, p. 4386.) The results of this long delay of seven months are indicated in the following quotation from the testimony of Admiral McKean:

The CHAIRMAN. Were any of your destroyers that were in that list available during the war?

Admiral McKEAN. I do not think, sir, any of those were * * * I do not believe any of those were completed in time to be available during the war.

As I said in my direct testimony, practically none of these new destroyers had reached European waters at the time of the armistice, and, therefore, so far as this war was concerned, the greater part of the new construction of destroyers was useless, because of those tragic months of delay in 1917, which Capt. Pratt and Admiral McKean have described to you in such detail and with such energy.

Departmental delays occurred in spite of individual efforts of officers in operations.—Many other instances could be given of exactly the same kind of delay in the department in those early months of the war, delays which any kind of an adequate war plan, or which even the most elementary military survey of the situation and of action based on that survey, would have made impossible. Nothing could be more strongly in contradiction of the spirit and terms of the President's war policy, as outlined in his message and in his letter, than this kind of inaction on the part of the Navy Department.

Apparently, in the desire to defend themselves, although they were never attacked, individual officers have appeared before you and have given long accounts of their own efforts to meet the situation and have tried to give the impression that these individual efforts were the official and responsible action of the Navy Department; but the most casual examination of their testimony shows that this was not the case. It reveals, on the contrary, how desperately they had to struggle and against what obstacles they had to work in making possible any activity on the part of the Navy in the early months of the war.

Admiral McKean said, for example, that the lack of plans and systematic organization of the Navy Department (p. 4348)—

Had increased the load, already heavy, that each of us were carrying. This load killed our best man, others broke down from time to time and had to be given a rest, but I never heard one of them squeal.

Admiral McKean sums up (p. 3437) the purpose in a number of paragraphs, which I would like to include, but I do not think it is necessary to read them to you.

(The summary referred to is here printed in the record, as follows:)

The preceding narrative is intended to show:

First. That Operations was awake to the situation before the war and was doing its best within the appropriations to prepare the fleet for war and to prepare the shore bases to maintain it in fighting trim during the war.

Second. That even before we became a belligerent the difficulties and prices were increasing daily, making progress slow and getting less for every dollar appropriated; and

Third. That when funds became available, practically without limit, the demands on the material and labor markets were such that new facilities had to be built up to provide the material, and that unskilled labor had to be trained by hundreds of thousands to perform jobs calling for high skill and long training.

The above explains why it was impossible for the Navy Department * * * to instantaneously, or even in what under normal conditions would be considered a reasonable time, meet the infinite number of demands made upon it.

Similarly, in his testimony Admiral Benson pointed out that the shortage of officers had made it impossible for him to build up the Office of Operations previous to the war so as to provide for a planning section, which would have made possible the elimination of long delays and the avoidance of the errors into which the Navy Department inevitably fell during the early months of the war in attempting to carry on war without plans and without adequate and intelligent provision.

Testifying with regard to this same point, Admiral McKean said (p. 3417):

We never had sufficient personnel to have an adequate staff of officers abroad collecting information; and of the small number we have had, few of them were selected solely because of their superior training for the job.

Admiral McKean in another place also called attention to the fact that this same shortage of trained officers had made it impossible for Operations to have any real planning section.

It seems to me that Admiral McKean admirably summed up the situation when he said (p. 4215):

We might have done more; we might have done it sooner; we might have done it better; but we did the best we knew how with the brains and energy God gave us to work with.

One is tempted to refer to Whittier's lines in this connection:

For of all sad words of tongue or pen,
The saddest are these, "It might have been."

Of course, the officers in the department did the very best they could, and, of course, it is true that, under the circumstances, they accomplished miracles. The achievements of the department are astounding when one reflects upon the conditions under which these officers had to work, with an inadequate organization, with a Navy unready for war, with a shortage of trained personnel, and with no plans and no directing force competent to handle the situation.

Capt. Pratt's personal letter of July 2, 1917, and my reply.—Capt. Pratt, in his testimony, introduced a personal letter which he wrote to me on July 2, 1917. This letter was an expression of his personal views as to the situation then existing, and his ideas as to what should be done. As he has introduced the letter, however, as being an official statement of the department's policy and plans at that time, it seems to me necessary, for a proper understanding of it, to consider the reply which I addressed to him on July 28, as well as certain other letters which were exchanged between us at about the same time. I am introducing these letters in order to show more conclusively what a wide divergence there was between the policy outlined by the President in his telegram to me on July 4,

1917, and the policy followed by the department previous to that time, and, also, to indicate to what an extent the department's policy was modified after July 4, 1917, and to what an extent the recommendations I had been insistently making for two or three months were approved almost immediately after the President had sent his message to me and I had replied. My letter to Capt. Pratt, of July 28, 1917, dealt with almost every principal point in his letter. There are paragraphs in it which are of a purely personal character, which referred to other officers in the Navy, or dealt with confidential matters concerning other nations, which I have omitted from the copy which I have here.

I do not think it is necessary to read that letter because it is a very long one and goes a great deal into detail, but I should like to make this statement regarding it, and that is this: That his letter to me showed that the information that they believed at the department as to the antisubmarine campaign and the submarine campaign was very largely in error, and my letter was designed to correct those errors and to point out what I thought ought to be done. It is a letter of perhaps 25 or 30 pages. I am quite sure you would all go fast asleep if I should read it, because it is very technical.

(The letter referred to is here printed in the record as follows:)

LONDON, July 28, 1917.

MY DEAR PRATT: Your letter of July 2 was received some days ago, and I will try and answer some of your odds and ends. I will have many criticisms to make of a good many of your remarks and theories, especially in reference to the alleged facts upon which you have based almost all of your conclusions.

Please get the copy of your letter and place it by you for reference while you read this.

Please remember while you are reading this, and remember it all through, that I am writing to you from the point of view of a man who is handling a very big and very responsible job, with the assistance of one military aid. Just keep this fact in your mind about this one military aid.

In order to bring out this point, which is really the essential point, I will just make a little list of the extremely useful things which you would like to have me do over here. Quoting from your letter:

1. "It would be wise for you to lay down certain general requisites in the matter of type and armament for submarines which we ought to consider in any building program.

"As you are on the spot, such recommendations would be of extreme value."

There is no doubt at all about the above, but how much time, study, and investigation do you think it would require to get out that one item alone?

Nothing would please me more than to send you complete and authoritative information on this point; and I could do it on this and dozens and dozens of other things if you would give me the necessary tools to work with.

2. "Possibly you may wonder why so many schemes which on the face appear unsound are sent over to you." (I should say I did wonder.)

"The face value of the articles presented is frequently nil, but in every case there has appeared to me to be an underlying principle which would bear scrutiny."

How long do you think it would take to make the necessary investigation in the various departments that concern the above? And how do you think all of these could be handled without assistance?

3. "I feel that we do not get enough of the point of view over here."

I can assure you that you get all of the point of view that it is physically possible for one man and one assistant to dig out in the time available from doing vitally necessary work in connection with the force, the movements of convoys, etc.

4. "Write home some of your newsy, gossip letters."

Nothing would give me more pleasure and satisfaction than to do so, but how do you think it can be managed, except for an occasional letter, when my time

is taken up with a hundred things that must be attended to, and when I have but one aid? My recent telegrams have told you what is the result of trying to carry this great weight without sufficient assistance. There is a very considerable amount of correspondence, questions, etc., banked up which it is wholly impossible to get at because our time is completely occupied by matters which can not be neglected.

5. "Not only must the fleet be trained to the minute, but those who are concerned with the intimate direction of its affairs must constantly have the most unlimited information, in order that any moment it may be able to adjust itself to changed conditions or to increased activities."

Of course, I recognize the extreme importance of this, but this alone, as you must well know, would require an amount of work and investigation that would keep one man occupied for a long time in order to get information that was sufficiently complete to be valuable.

Ever since I have been here I have recognized the extreme importance of getting the information indicated in the paragraph above, and I have recommended, urged, and implored the department to send over the necessary people to dig out this information and send it in constantly—that is to say, continuously—as the information becomes available to fit the "changed conditions or increased activities."

I have recommended that officers who are as expert as possible in the various kinds of information you want be sent over to serve not only in the Grand Fleet, but in other types of vessels, and these officers return from time to time with information, and be replaced by other similar officers.

Not only would this be of the greatest benefit to the department and to the fleet, but to the officers themselves.

It is a matter of the utmost astonishment to the people over here that I am left without a staff commensurate with the heavy responsibilities and the complicated duties that I have to perform.

It goes without saying that no other official of any other navy or army is in such a position.

Even the Belgians have a field officer here with a large staff of specialists in the various departments.

6. "In order that the fleet may be in closest touch at all times with every phase of the situation, not only this side of the water, but also abroad, the admiral has endeavored to establish the closest sort of cooperation and information service between the fleet and this office; and I feel sure that he would view with favor any effort on their part to establish permanent relations, even to a desk here, between this office and grand staff of the commander in chief."

All of the above is manifestly the correct dope. You can establish the closest sort of cooperation and information service between our Navy Department and the fleet, but how are you going to establish the same kind of relation between the forces on this side and the Navy Department, in order that the information may be transmitted thence to our fleet? Manifestly, you can not do this without a staff on this side any more than you can do it between the Navy Department and our fleet without a staff being attached to the latter.

I am wholly at sea in this matter. I assume that the Navy Department must have some sufficient reason for leaving me without a staff, but I have no idea at all what that reason may be.

7. "There is a question pending of sending the commander in chief, with a part of his staff and a representative of this office, to discuss the various questions with the admiralty, and get first-hand information and impressions."

This would doubtless be a good thing. Anything of this kind would have a good effect. It is in line with what I have been recommending—namely, that you send officers to this side in whose opinions you have confidence; but I have the most serious doubts—in fact, I have an absolute conviction—that the above suggestion would not accomplish the necessary results unless they were prepared to stay here on the job and keep up what you have stated to be necessary—that is, to constantly convey the most unlimited information.

The admiralty has recently requested that four of our coal-burning dreadnaughts be sent to join the Grand Fleet. If you will refer to my cablegram on the subject you will see that I have pointed out the extreme benefit this would be to our Navy, particularly if the officers that I recommended were sent along with the force from our fleet to cooperate with the Grand Fleet.

8. "Asking you to outline the character and extent of operations in the air, which our naval forces might at some near time be called upon to undertake in the service of the allied operations."

This is another example of the things that I am asked to do without having the force to do it. If I had a man here who understood all this business and whom I could put on the job to run down the necessary information, I could answer the question promptly and fully. As it is, I must pick up the information as well as I can from time to time in the few and short intervals that occur between items of work which can not be put off for an hour.

9. "It (the air service) is one effort which can be intensified most rapidly, etc."

The boss of the commission who came over here on this service told me with great pride that they expected to be able to place a certain number of thousands of aeroplanes on the western front about August, 1918.

The above are only a very few of the things which I have been asked to attend to, and which it is wholly impossible for me to attend to, with the rapidity and thoroughness which are necessary to efficiency. Bear in mind that the above are really only samples of what come through to me.

In connection with the above, please bear in mind the nature and extent of the administrative work which flows in a constant stream to us. As you were a member of the staff of the old flotilla, you know something about this. At that time we handled our own affairs directly, and not through cooperation with allies. At that time we had approximately a sufficient staff to handle the flotilla work by all hands working hard and attending to business.

My present position is similar to what it would have been if they had taken all of my staff people away from the flotilla except one, and then sent the flotilla over to this side, and given me all of the extra work, like the above indicated, in addition.

Can you wonder that things have happened as they have? Can you wonder that I can not for the life of me understand what is behind all this? Can you wonder at the astonishment of the people over here, who see me carrying out my present work without a staff?

You know me well enough to believe that I have never at any time been at all touchy about the dignity of my rank. But I will admit that I am more than a little bit touchy about the dignity of our Navy Department. I am obliged to go from one department of the Admiralty to another, consulting officers of all ranks to dig out information about details that could be done much better by officers who are better acquainted with the technical details I seek. Moreover, by officers whose ranks would be commensurate with that of the officers from whom the details of the information must come, and who, in consequence, could much better get the information than it could be gotten by a vice admiral.

I note that in your letter you tell me that everybody is in sympathy with the work that I am trying to do. You tell me that everybody is trying to send me help as fast as it can be spared. Then you recite to me why it can not be spared. It is because you need so many officers for so many different things—trawlers, motor boats, converted yachts, etc.

Did it ever occur to you that this must necessarily sound to me as though you were trying to make fun of me. Is there any billet in the Navy to-day, barring a few, that is more responsible or more important? Is not the success of the work that I am trying to do more important than the existence or the efficiency of one or two converted yachts?

Why is it that you could not turn it around the other way and say to those concerned that you are sending to the converted yachts as many officers as can be spared, but that you have been obliged to send an adequate number of officers to a more important position; that is, to assist me in doing what the department urgently needs to have done?

You have also specified that you were sending me officers "who can be spared." Does not your training indicate to you that that is not the kind of officer for a job of this kind? If there is any place in the Navy to-day where officers of special training, special ability, special temperament, etc., are required, it is in this billet over here.

I sometimes doubt whether any one particular person on the other side who is concerned with making these decisions has ever read all my dispatches wherein I have specified the above requirements.

I am insisting upon all this, because I am perfectly conscious of the fact that by reason of purely physical limitations, I am utterly unable to send in the in-

formation which both I and you believe should be constantly flowing into the department.

In this connection I may say that it is very generally recognized over here that America's coming into this war is going to be the salvation of the Allies.

In Paris this week, there were conferences held between the naval representatives of Italy, France, Great Britain, and the United States.

There were similar conferences held between the military representatives of the same powers.

At the conclusion of these conferences the admirals and the generals came together to talk over their mutual interests. The result is contained in cables, which I am sending to-day, quoting a resolution of the combined conference, and asking that similar representatives for the United States be sent here by August 10, if possible, to take up the whole matter; for this question of shipping is the crux of the whole situation.

The British want all the mines they can get put down in the ocean. They would therefore be glad to have us manufacture these mines of the latest type and send some vessels to help them put them down.

These are being used for various purposes.

As frequently reported in my cables, the North Sea is pretty thoroughly mined within a radius of about 100 to 120 miles from Heligoland. This area has been successively mined by the British against Germans, and the Germans against the British.

The northeastern area of the Dogger Bank contains a great mine field, over which the Germans repeatedly tried to draw parts of the British fleet. It was through or alongside of this mine field that the German fleet retreated after the Battle of Jutland.

I have always believed this to be the case, but did not know until I had seen the mining charts here.

The area above described is a dangerous area for both the Germans and the British. This is dangerous because of the fact that the positions of the mines are not very accurately known by either party. Although all practical precautions were taken to determine the position in which they were laying down the mines, these positions remain so uncertain that neither the British nor the Germans will go within 6 miles of the position in which they believe the mines to be laid down. The longitude positions of the ends of the mine fields are pretty accurately known, but the latitude positions are all in considerable doubt. This is due to the fact that the mines were laid necessarily in the night time, so that enemy scouts, Zeppelins, etc., might not see the operations. The longitude was more accurately determined than the latitude, because the mine layer in leaving a known position on the British coast, spun out behind her a piano wire. This gave the longitude with very considerable accuracy; but it did not inform them as to how much they might have been drifted north or south by the varying tides of the North Sea.

STRATEGIC FIGHTING AREAS.

It is not necessary to try to analyze all that you say under this headline. I agree with it all without exception, provided your premises are correct.

Perhaps some light may be thrown upon this by asking you a few questions on the subject.

If the various schemes you propose for offense action against the German fleet and bases and the comparatively simple plans you suggest have not been carried out by the allied admiralities, what do you think must be the reason? The answer to that question must necessarily be extremely uncomplimentary to the Allies, provided your premises are correct.

As a matter of fact, not only has everything that you suggested been tried in blood and tears, but a great many other schemes which you have not suggested, and the present situation has been forced upon the Allies by a succession of very bitter circumstances.

Of course, everybody knows that the very best way to defeat an enemy is by a strong offensive, and that this offensive would be more effective where the enemy is the most dangerous; that is to say, in the North Sea and the Adriatic. It is the same old business of digging the rats out of their holes or stopping the hole in the wasps' nest instead of fighting the wasps individually after they are out.

You are correct in saying that the mine in some form or other, whether planted on the bottom, dropped from the stern of a destroyer, or thrown by howitzer

gun, or in the form of the torpedo itself, is the principal means of offense against the submarine.

The aircraft is an auxiliary of considerable value, but unfortunately its rôle must always be a secondary one by reason of its very limited and uncertain radius of action. Its uncertainty of radius is largely due to the question of weather conditions.

There can be no doubt whatever that the mine fields are a very considerable embarrassment to the enemy submarines.

I am glad that you realize the silent pressure of the British Fleet: that is, its effect on controlling the sea and making it possible for the war to be carried on.

You say that the "North Sea and the Adriatic must be offensive mine areas." They are the most offensive mine areas that you can imagine. In many of my cables I have described the extent to which the North Sea is mined, and I have referred to it above in this letter.

You say that I do not accept as a valid excuse the statement that the "Fleet must be in readiness to repel an attempt by major ships of the enemy to raid the east coast." It has never been so held, and is not now so held. Its mission has been to be ready to attack the German fleet in case it came out in force. The British have never been particularly apprehensive that there would be any serious raid on the east coast. Their estimates of the kind of raids that might be expected have been correct, and they have held in readiness a force south of the Grand Fleet to repel these raids. You know what these actions have been.

I entirely agree with you and the rest of the gang in the insistence that local tactics should never be allowed to cloud correct strategic conception. To the best of my knowledge, they never have done so.

You refer to some decision of the Admiralty "that certain areas can not be mined because it will interfere with the operation of the High Sea Fleet." You believe this to be wrong, and state that you are going to stick to it "like a stubborn mule." There is no reason why you should not do so, though I do not think that any member of the War Board should take the attitude of a stubborn mule on any question. The misapprehension in the whole matter is that the Admiralty has never rendered any such decision. They did not have the decision. The enemy can plant mines as well as they.

In this letter, or in some earlier letter, I have referred to the very extensive mining that was done on the northeast end of the Digger Bank by the Germans and their repeated attempts, after raids, to draw the British pursuers across these mine fields.

Naturally, the Allies have countered by planting mine fields which would embarrass the Germans. This was rather early in the war. Since that time mining has been going on vigorously on both sides—particularly on the part of the British, and this to such an extent that the North Sea is now mined over an area extending over 100 miles in a circle from Heligoland.

PERSONNEL.

Under this heading I think I have said all I care to above. I have tried to point out that the success of this mission of mine is a little more important than the existence or the efficiency of one or two armed yachts. If you had taken a couple of these armed yachts out and painted them red and sunk them in the ocean and given me their commissioned officers, you would not now be calling for masses of information which it has been physically impossible for me to get and send in.

I may say also, in this connection, that it is perfectly easy to send me officers who would be of almost no use in this particular kind of work and that is the reason that I have specified the type of educated and experienced officers that I need.

I may, of course, be quite wrong about this, but it is my idea that, barring the officers in Operations, there are no billets in the Navy that are more important than those upon which we must necessarily depend for the completeness and accuracy of the information coming from this side.

ESTABLISHMENTS STATIONS FOR UNITED STATES FORCES ABROAD.

In my cables I have tried to make it clear that in this submarine campaign the battle line is necessarily stretched across the approaches to the British Isles and France. I am, therefore, at a loss to understand the scope of what you mean by "Our home needs."

It is true that in the future there may be some needs there; but it is difficult to see just what they may be. I do not think any estimate of the situation made from the German side could possibly conclude that any considerable force would be sent to operate 4,000 miles away from their base, in an attempt to cut dispersed lines of communication, instead of using the same force to attack these concentrated lines as they approach this side.

It has been a matter of astonishment to me that in the very beginning of our entry into the war the Germans did not send one or two submarines to the other side to alarm the good citizens of the Atlantic coast and, through the pressure of public opinion, force the department to retain forces on the other side which they have, or intend to, send to his side. That they did not do so would seem to indicate that they hope that the peace propaganda in America would either succeed or at least would diminish the amount of activity that we would take in the war.

Both in your letter and in other communications there has been reference to the possibility of the Germans establishing submarine bases on the other side. This to my mind is a most extraordinary conception. The kind of bases referred to could not be anything more than a place that a submarine could slip into and get supplies of oil or provisions.

I have discussed this matter long ago with those officials of the Admiralty who are handling the submarine situation and with those who are responsible for their extraordinarily efficient secret service. (Right here let me say that I am unable to tell you much about this secret service, because the sources from which it is derived are so important that it would be not only dangerous to put it on paper but even to tell anybody else about it. It is, in fact, not important that you should know details, but I ask you to believe that the service is of extreme efficiency.)

To return to the question of basis, the above-indicated officials point out that if the Germans have such a base on the other side it would be approximately no use to them unless it provided additional torpedoes and mines and efficient repair facilities. Of course, that sort of base is impossible.

These officials also point out that there has never been any such bases on the coast of Ireland or Spain; that such bases not being able to supply torpedoes, mines, repairs, and relief crews would be of no use to the Germans; and this for the simple reason that the limitations of the submarine's activities are determined by the number of torpedos or mines she carries and by the endurance of the crew. That is to say, if they had bases on the west coast of Ireland they would not need to use them, because the above limitations force them in any case to return to port for supplies, repairs, and relief crews.

I am very glad, indeed, to note the list of vessels which it is now expected will be sent soon to this side. Menhaden fishing boats will be of the greatest service to France, as she is short of this type. She needed them for dragging for mines and that sort of thing.

As for the escort service on the French coast, the yachts will be of great use. Of course, you know that there is a tremendous traffic up and down the French coast of vessels going from England to France and Italy with coal and returning from Spain with ore and other products.

The service of escorting these vessels is very well done. Out of something over 6,000 trips, the loss of vessels has been less than one-tenth of 1 per cent. It is the most successful of all operations in protecting vessels.

The five destroyers from the Philippines will undoubtedly be of use within a limited radius, probably based on Gibraltar.

You speak of the "twelve destroyers ordered to get ready for distant service." This is the first information I have had that any other destroyers are to be sent.

The other yachts that you mention as now being got ready can be used to great advantage.

Whether or not we should undertake operations in the Mediterranean is, as you say, "another question." In this connection it may be well to remember that our operations in the Mediterranean would be necessarily restricted by the fact that we are not at war with Austria.

You are correct in saying that "Our submarines could do good work in the North Sea area." I entirely agree with you in this, and I hope that they can be sent at the earliest possible moment. Boyd believes that our present submarines could be used successfully in the same kind of service that the British submarines now perform. He has been on patrol in some of the latter.

ARMED GUARDS.

Your remarks under this heading make it impossible for me to believe that you can have read my explicit cables on the subject, or Admiral Jellicoe's cablegram giving the results of their experiences with a cruiser operating against their own submarines.

It will not be necessary for me to go into this matter again; but I would be obliged if you would look up my cables on the subject and note particularly the fact that a great many armed vessels, even a number being escorted by destroyers, have been torpedoed without the periscope of the submarine having been seen at all until after the torpedo struck the ship.

You might also note the fact that regular cruisers operating on patrols I have indicated have been torpedoed without seeing the submarine. Also the fact that experience has driven the Allies to the necessity of escorting all important men-of-war by destroyers.

The reason of this is that the present size of the upper end of the periscope is so small that it is wholly impossible to make it out until it is away inside of the distance at which a hit is practically certain.

If you want to carry out some experiments in this line, drop a few hooks overboard and see at what distance you can pick them up by the exercise of the utmost vigilance. The present periscope is no bigger than the handle of a boat hook.

As far as I can see, all of the conclusions about the effectiveness of arming merchantmen is based upon the assumption that if the crew is sufficiently vigilant they will almost always see the periscope in time to drive the submarine under water. This is wholly and grotesquely in error. Even if it were desirable to arm merchant vessels in the way you describe our armament, it would be wholly impossible to do so for all of the vessels of the Allies. There are some thousands of them, and they have not either the guns or the personnel to do so.

As it is, the British Navy is many hundreds of officers short. About 5,000 new guns are being built, but this will necessarily take some time. The Admiralty has asked the gun builders of America for assistance in this line, but it could not be given. This request was made in the long telegram from Admiral Jellicoe to Mr. Schwab.

In respect of armed merchantmen, the British are doing what is possible for them to do considering all of the other necessary activities. They have schools for the instruction of British merchantmen in the best methods of handling their ships. They have a corps of some fifty-odd officers who make trips on merchant vessels for the purpose of instructing the crews.

Inspections are made of the records of ships that have been attacked either successfully or unsuccessfully, and in those cases where it is shown that the master has not handled his vessel in accordance with instructions he loses his job by having the insurance authorities notified that no insurance will be given to any vessel he commands.

ANTISUBMARINE DEVICES.

The most hopeful of all these devices is that which was recently installed on the *Wilkes* and three other destroyers that recently arrived from America.

This is acknowledged to be the most promising principle, and it only remains to make it sufficiently effective for use against the submarine. You may or may not have seen the report of the experiment carried out on this side. My cablegram was based upon the report made to me by Lieut. Commander Castle. Both the British and French scientists are also working on this problem—that is to say, the improvement of our device—and it is earnestly to be hoped that they can make it effective.

COOPERATIVE OFFICERS.

Under this head you make a remark that positively gives me goose flesh. You say, "If the increase of your personnel is actually given you, then you will have a force to work with composed of some very fit men, even if taken from the Naval Reserves."

The above refers to liaison officers. There is no officer in any navy in the world, and there never will be, who is competent to be a liaison officer. Such a man, to be as efficient as we would want him to be, would be a wonder. He must not only have accurate and extended experience but sound judgment in

military and nautical matters. The idea of having officers from the Naval Reserve on this duty is what gives me the goose flesh.

You suggest that everything would be all right if you had over there a representative of the Admiralty General Staff. If this were carried out in respect of the various Allies, it would imply officers of such capacity that they would not only be able to tell you everything that you wanted to know about actual conditions, but would also be able to keep you up to date as these conditions changed.

All of this without opportunity on their part of discussing with their own admiralty the various questions as they arose, except by cable and mail. It is hardly necessary to say that no such extraordinary officers exist. It would seem to me that you have got things the wrong way round; that what is required is representatives from each one of the Allies concerned all working together in some central place.

The conclusions of such a body of officers would not be materially affected by the place in which they worked, provided they had access to all of the multitudinous information they would require. As this information would be wholly essential, it would seem logical that these officers should work at the center in which this information is most completely available.

Lest you think I exaggerate the qualities of the officers referred to, please note that you state that he should be a "master tactician and also a master of policy and strategy." You say, "Those are rare qualities to combine in one man," but still you suggest that Great Britain should send out such men to cooperate with the navy departments of her various allies.

Instead of doing so, she has requested the Allies to send such men to her to discuss with her war board the various measures to be taken, and she intrusts these officials with the duty of keeping their own admiralty informed. This is what I have been recommending in respect of our Navy Department ever since I came here, it being understood, of course, that such an officer should have the necessary assistance to make it physically possible for him to perform his task.

This is the only way in which the Admiralties of the various Allies can keep a "close scrutiny" on the work that is going on. This is about the only way for "each to give and learn from the other."

You have asked repeatedly as to what the Admiralty's policies are in respect of the war, and particularly as to the antisubmarine campaign.

My various cables should have made this entirely clear. I sometimes doubt whether you have ever seen them all. I do not know how the cables are handled. I can only judge from the results on this side—particularly from my lack of information—as to what is proposed and what is being done, even in the handling of what I might call current events.

You say that you always try to keep me sufficiently informed. In this connection I may point out, only as a sample, a few of the things that occur to me wherein I was left without sufficient information.

For example, I did not know that any destroyers were coming over with the first convoy. When I found out this fact I did not know their names or how many of them there were, and I did not find this out until they had arrived at Queenstown and could be counted.

I did not know that there were any naval colliers with the convoy or that these colliers had carried coal and other supplies to France.

I did not know of the sailing orders of the destroyers that were sent to the Azores, and I do not know under what orders they are operating, and consequently whether my wires are crossed with theirs.

I did not know of the movements of the *Kanaicha*. I was informed that she was coming with the convoy. I assumed that it was with one of the merchant convoys from Hampton Roads. I did not know what her orders were, and I do not know now.

I was not informed that a collier was being sent to Bordeaux with coal, and I do not know whether other colliers are to follow her.

I learned from my people in France that a collier arrived in Bordeaux with coal for Fletcher's forces and under charter to return to Hampton Roads for more coal. This would seem to be an extravagant use of tonnage, as this vessel could do much more effective work if she were chartered to carry coal from Cardiff to Bordeaux.

I am not yet aware whether Admiral Wilson's force has sailed for Gibraltar and when it may be expected.

The above are just a few samples of the lack of information on this side.

You say "It will be won all right; England can do it herself, but we can shorten the process."

In view of the information I have been sending in since my first cable, about the middle of April, this is a most extraordinary and discouraging statement.

There is not a man in England in a position to know anything about the situation who believes that England can win the war without a great deal of assistance.

No extensive analysis is necessary to show this. It can be shown without the necessity of any accuracy of figures, but simply by a statement of the relation of certain figures to certain others.

It is a matter of arithmetical computation that a certain amount of supplies are required to support England, France, and Italy, and their armies at the front. The submarine losses are very much greater than the possibilities of building to restore these losses, at least until after the expiration of a year or 18 months. Whether the destruction is two, three, or four times as great as the replacements, it makes no difference in the final results: it affects only the time when the reduction of tonnage will begin to go below that which is wholly necessary for continuing the war.

If we assume that the rate of destruction will continue at the present rate, you can easily do a sum and find out how long it will be before the total tonnage is reduced to the danger point. There is no possibility of England alone being able to do the necessary amount of building to save the situation. Therefore, it is not true that "England can do it herself."

Upon this point I have obtained and cabled the official figures derived from the ministry of shipping and other departments, and they have shown that the embarrassment referred to can not be long deferred unless extraordinary measures are taken.

One of my recent cables indicated that one of these measures is the withdrawing of 80,000 shipwrights from the British Army, in order to increase the building of tonnage to 3,000,000 tons a year, which is about half of the necessary amount assuming that the submarines continue to destroy 500,000 tons a month.

There is no deception about the above. It is a matter of arithmetic.

I am in great hopes that the improvement in the means of offense against the submarine, and particularly the convoy system, will so diminish the losses as to make things look a great deal better—but this is not very certain. It certainly is encouraging to know that of all the convoys that have arrived from America, only one has been attacked, and only one ship struck by a torpedo, and this did no more than damage her rudder.

Of course, it is to be anticipated that the Germans will change their tactics when the convoy system is more completely in operation. One of their changes in tactics will be the sending out of what might be called submarine raiders. These are submarines of the *Deutschland* class, though larger. They are believed to be about 2,500 tons, and they will carry a couple of 5.9 guns. It is said that they will operate in the same manner as the one that I reported by cable, well out in the ocean, in the latitude of Gibraltar. She seized a Norwegian ship and used her for a considerable time as a base. It is said that the new large boats will carry sufficiently large crews to put prize crews on board of captured vessels that it is desired to try and send in—of course, particularly, during the long winter nights.

Some British officers, notably Admiral Bacon, who commands at Dover, are of the opinion that Germany may even send out some of her cruisers as raiders during the winter months, in the hope of being able to destroy the escorting cruisers of convoys, and then destroy the convoy.

It is for this reason that I would recommend the employment of some of our reserve battleships for escorting convoys—that is, to escort them up to the point where they are met by the destroyers from this side.

Once the convoy is under escort of the destroyers, I believe the danger of destruction to be small. I believe that all the submarines can do is to make Browning shots at the convoy from a long distance.

Please note, as I have previously stated in letters and cables, that the convoy system enabled the Allies to make concentrated offensive attacks against submarines that are necessarily widely dispersed in order to have a chance of finding the convoy.

TRANSPORT SERVICE.

It is the best possible news that the Army has now turned over the transport service to the Navy. I supposed that they would do so as soon as they

realized the dangerous nature of this business of transporting troops through the submarine zone.

I have a cable acknowledging receipt of my letter about handling transports, and I am glad to know that the suggestions contained therein have been adopted.

During the recent naval conferences in Paris I had a long talk with Gen. Pershing and with the chief of staff of the French Navy on the subject of communications relating to convoys. As a result of this conference, I have sent a cable pointing out the necessity of keeping all communications on one line. It seems to me essential that there should be only two people—one in Washington and one on this side—who handle all communications relating to the movements of convoys.

Gen. Pershing and the French Navy Department agreed with me absolutely on this matter; so does the British Admiralty. I gave a copy of my cable to Gen. Pershing, and he said he would send a similar one to his War Department.

The French chief of staff told me he would have instructions sent to the French official on the other side to the same effect.

Admiral Jellicoe sent yesterday a similar telegram to his people.

I was horrified to find during my visit to Paris that information about the convoys coming to this side was known in official and social circles even before Gen. Pershing knew about it himself. It appears that the French naval attaché and the chiefs of certain French missions, and the Lord knows who, have been sending in by cable all of the information they happened to pick up about these convoys.

The same has been true in reference to our War Department. They have been telegraphing endless stuff to their various representatives.

I do not know whether you would be able to stop all of this flow of information or not; but if you can not do it from the other side, you must clearly understand that you are incurring a risk of disaster which may shock the entire Nation.

You will recognize that my responsibilities in this matter are very great. You know whose neck will be out if anything happens, though it may be the fault of some more or less irresponsible official who has been sending information that the enemy has gotten hold of.

If you can keep all of the information on one line, I think there will be comparatively little danger.

Gen. Pershing has even agreed that when he wants information about convoys he will hand it to Jackson in Paris, who will transmit it to me for transmission to Washington; and that any information that the War Department at home wants to send to Gen. Pershing should go to the Navy Department to be sent to me to be transmitted to those concerned. This is the only safe method, and it should be carried out with the whole power of our Government behind it.

I do not know enough about the Army affairs to know how much transport service would be necessary per 100,000 men to support an army at a distance of 3,000 miles away from its base of supplies.

Gen. Pershing told me that to support an army of a million men on the western front would require 50,000 tons of freight a day. This seems so extraordinary to me that I invited his attention to the fact that this would mean five 10,000-ton ships arriving every day. Assuming the passage was 9 days, this would require a procession of 45 ships coming and 45 ships returning at all times, and another 50 or 60 loading, discharging, coaling, and so forth.

Please make a little arithmetical computation as to how many destroyers it would take these in, assuming that they had to go 400 miles to sea to meet them. After you make this computation, see if you can remain cheerful.

It is apparent that we must come to some understanding with the Allies as to the amount of shipping that can be assigned to the support of an army in France, without thereby crippling the Allies in some other direction in their own supplies. This can only be done with certainty by the conference in London, which was suggested in my cable of yesterday.

ESCORT AND CONVOY.

Under this heading you have explained a scheme which would work very much better than the convoy system, provided your premises are correct.

Unfortunately, they are very much in error—so much so that all your arguments fall to the ground, as viewed in the line of experience that the British have had in handling convoys.

They have found it to be absolutely impracticable to collect a convoy at sea in mid-ocean.

Even some of the best commanded vessels are late at the rendezvous, due to various conditions.

This is a fact or it is not a fact. If you are not willing to accept the experience of the British in this respect, you may theorize to your heart's content. If you are willing to accept it, you must drop the idea of a possibility of collecting these vessels at sea.

There is also another consideration, and that is that in order to bring a convoy successfully through the submarine zone it required a continuous zigzagging. It is therefore necessary that they should receive a sufficient amount of training in this more or less difficult maneuver on their way across the ocean.

It is also entirely necessary that there should be a vessel with them through which safe communication can be had with officials on this side, who are steering the convoy in accordance with the known position of submarine activity.

Of course, you know that the merchant shipping is supplied with a code. Perhaps you do not know that there is never any certainty that this code will remain safe for even a week. If one copy gets out, and I fancy there is a large reward for such copies, any information sent in the code, broadcasted as you suggest, to merchant shipping, simply acts to inform the submarines as to where to find the convoy, or as to where to find the rendezvous which you propose.

Of course, the assembling of a convoy at sea assumes that there are no raiders. As soon as the long nights of winter come on this question of raiders will become a serious one. They can not easily get to sea from German ports when there are only a few hours of night. In fact, there is no real night at all in the latitude of the Scapa Flow. It is a vastly different matter, however, when there is practically no daylight. We may reasonably expect that the Germans will take energetic measures to oppose convoys.

We already know that they are completing what might be called submarine raiders, such as I have mentioned above, and that those may be capable of doing great damage to a convoy before it is joined by the destroyers.

These new submarines carry no less than 30 torpedoes.

As to the present danger from raiders, there are some at sea and their position is not now known. The trouble about a raider is that he can do a vast deal of damage before his presence in a certain part of the ocean is known. This for the simple reason that he sinks vessels and takes their crews on board, and does not have to reveal his activities until he is forced by the accumulation of prisoners to make a landing.

In reference to the forces you were sending abroad, I am much flattered by the remark that "In all these matters we must be guided by your judgment."

I cabled that, after consultation with the British Admiralty (and after the latter had consulted the commander in chief of the Grand Fleet), they requested that our three scout cruisers be sent to join the Grand Fleet. The next news I had was that they were to be sent to Gibraltar.

I have repeatedly and very urgently pointed out the great necessity for tugs on this side. Up to date I have not received any reply from the other side concerning this subject.

In reference to the 110-foot submarine chasers, they could undoubtedly be put to good use in certain localities on this side, provided they can be supplied with the necessary gasoline. As you know, they consume gasoline at an alarming rate.

I have recently received a telegram from the Assistant Secretary stating that about 300 wooden chasers of 120 feet in length could be built without interfering in any way with any of the other building programs, and asking my opinion on the matter.

I have replied that I will send this opinion as soon as I can finish consulting those who have had the most experience in such matters.

Lieut. Commander Castle has just returned from a trip around various ports and to the Grand Fleet. He is very seriously impressed with the deficiencies of our fleet in certain respects that he advises me to order him home at once, and I have done so.

I hope you will have a good talk with him because I believe he could tell you many things which we should know, and which you would have known long ago if you had only sent me the necessary people to dig it out. Castle and Robinson should be sent back as soon as they have unloaded their very important dope.

Castle agrees with me that if the four coal-burning dreadnaughts that the British have requested should be sent over here, with the staff officers recommended in my cable, it would be of the greatest possible benefit to our fleet and the Navy Department.

As to aircraft operations, I have taken such measures as I can to get the information that is requested on this point, and it will be sent in as soon as possible. I am recommending that the Admiralty send over a competent man to explain the situation.

Don't take this to be a deliberately prepared letter. I have had to dictate pieces of it from time to time, and I will not have time to go over a rough copy and add the many things which I know would be suggested to me. I have not the time for writing such letters. You must take it for what it is worth, and try and read between the lines.

Write me, when you can, and give me all the information which you think would be useful.

I can not quite understand why it is that information is not sent over to me as it should be, and that many serious things are allowed to happen without my being notified. It seems to me that there should be an officer whose sole duty it would be to see that telegrams are answered. I would suggest that he might properly be called the "nuisance," and that his duties be to make himself a nuisance to the people who have not answered essential telegrams.

Please be so kind as to remain as cheerful as you can.

I am inclosing a clipping from August number of the London Magazine, entitled "Digging out tactics." This was written by Mr. Percival A. Hisslam. You doubtless know who he is. I hope you will read this article prayerfully and circulate it where you think the information is most needed.

Always sincerely, yours,

Capt. W. V. PRATT,
Navy Department, Washington, D. C.

This was not the first letter that I had written Capt. Pratt. I may say that these letters were exceedingly long and were exceedingly in detail, because we were making an earnest effort to get proper information on the other side.

THE DEPARTMENT'S DELAYS AND MISTAKES IN 1917.

This was not the first letter, however, that I had written Capt. Pratt. After I had been two months abroad I could not help but feel that the department was paying little or no attention to the recommendations I was sending. My cables remained unanswered; the recommendations which I made had been, so far as I knew, completely ignored. In writing to Capt. Pratt, with whom I had previously been closely associated, I therefore dealt very frankly with the situation as I saw it at that time. In a letter of July 3, 1917, for example, I set forth an untarnished view of the situation.

That is another letter of the same nature. It sets forth the view as we saw it on the other side, based upon the information we had on the other side.

(The letter referred to is here printed in the record, as follows:)

LONDON, S. W., July 3, 1917.

MY DEAR PRATT: My last letter to you, written from Queenstown, will have reached you by this time. I hope that they will give it earnest consideration, particularly in reference to the point I make about the war being on this side. I want to speak quite frankly about that matter in this letter, but it is for your ear only.

It would be very funny, if it were not so tragic, the spectacle of many dozens of ships, destroyers, yachts, and so forth, parading up and down the American coast 3,000 miles away from where the vital battle of the war is going on.

How is it that they can not see that this is as wrong as it possibly can be from a military point of view? In other words, why does not America send her forces to the front instead of keeping them 3,000 miles in the rear? If there were any danger on our coast or if dangers should develop later, you could send the forces back again, or such as were needed, before any considerable number of the enemy could get over there.

If you have been reading my recent cables, you will realize, at least I believe, that this situation over here is a very dangerous one. To understand this you need only to be in possession of some very simple arithmetical facts. They are as follows: The Allies are losing about 500,000 tons of shipping a month. The building capacity of the available yards within the next year are not more than 130,000 tons a month. This means that when the available shipping is reduced below the amount of tonnage that will land a certain amount of freight in England and France the war will be lost. The necessities are about 32,000,000 tons of imports a year. It requires a certain amount of tonnage to accomplish this. When it falls below it, it will be wholly impossible to maintain this population and to maintain the armies in the front. It would be impossible to import the wholly essential ore that is necessary for munitions and to export the tremendous quantities of coal that are required for both France and Italy.

In order to find out how soon the pinch will come all you have to do is to make the arithmetical calculation as to when the available shipping will be reduced to the point indicated. I have seen a study of this made out by the appropriate department of the British Government, and it shows that the pinch will come in December, if a certain rate of destruction is assumed, something like 300,000 tons a month, and by September if a certain greater rate of destruction is assumed, a little over 400,000 tons a month.

These incontrovertible facts show what I mean when I state in my messages that the situation is very critical. The truth about the matter is that the enemy is winning the war, and all of the help that we will be able to give in the way of increased shipping facilities, money, and so forth, a year or even six months from now will be of no value. When the pinch comes on the western front it would be impossible to provide reinforcements, because you can not feed them, and the end will then be very near. This opinion is founded upon absolutely reliable information, and it is held by all the responsible British officials that I know. I do not include in these responsible officials those politicians who, for fear of their own personal losses, do not dare to tell the truth. I realize, of course, that my reports on this subject are made to appear pessimistic by the speeches which are made here by politicians for their own personal purposes. They do not dare to tell the truth for fear of trouble in this country and for fear of losing their jobs.

Now, these latter statements may seem to you to be exaggerated. If you think they are, I would like to have you read a cable dispatch that the ambassador has just shown me and which goes forward to-day to the Secretary of State and the President. It points out this very thing, and announces that in his opinion there is danger of a serious explosion.

There is only one way in which disaster can be avoided, and that is by diminishing the effectiveness of that feature of the campaign which is necessarily influencing all others; that is to say, the submarine campaign. God knows, I have said everything which I could say in official communications on this subject; so has the American ambassador. I therefore went to him the other day and told him that in my opinion our statements, which can not be successfully disputed, should be verified directly by the British Government. He agreed that this was so, and he therefore took me to call upon Mr. Balfour. I explained the whole situation to him, and he agreed with me that an acknowledgment of the seriousness of the situation should be made by their Government. He therefore requested me to go to Admiral Jellicoe and between us draw up the dispatch which we would suggest that he send. We did so, and it was sent practically in the same words. I assume that this will be brought to the attention of the Navy Department. You will note, of course, that the language of this dispatch is not as energetic as I have been sending in. The reason of this is the fear that it might leak out and do damage. But you can read between the lines and see that it is a very strong statement and very frank acknowledgment of the necessity for help to be sent by one great Government to another.

There is one other thing that I would like you to understand, and that is the embarrassment and the delay which is caused by the insistence of our people on the other side trying to advise these people over here in the direct lines in which they have had the most experience. My last letter concerning the

convoy business indicates what I mean. These people over here are really intelligent; the things they are doing now and the methods they are employing are the result of much bitter experience which has been learned in blood and tears. I do not know, therefore, that you can conceive the impression that was made by recommendations as to different methods which amounted in effect to a statement that these people here are really not intelligent at all. I can understand that it is perfectly natural that such recommendations should be made, but the point I want to make is that when any such subject is taken up for discussion that the first thing to do, and the only logical thing to do, is to ask the people on this side what their experience has been, so that your estimate on the situation on the other side will be founded on real facts and not upon facts as you suppose them to exist.

A most flagrant example of this was the astonishing statement received from the other side to the effect that the best protection of the merchant ships was a thoroughly trained and efficient gun crew. I subsequently learned that this opinion was based upon an estimate of the situation by Schofield. This estimate was a clear and concise piece of reasoning based upon wholly false premises. He assumed that with sufficient training men of character who were sufficiently vigilant would always see a periscope of a submarine in time to drive her below water by gunfire. If this were true, the estimate of the situation would be perfectly correct, because the reasoning is sound in all respects.

Unfortunately, it is practically wholly untrue, as I have tried to show by the information I sent in immediately by cable and as Admiral Jellicoe has shown by the cable he sent to his attaché to be shown to Admiral Benson. You folks could have avoided placing yourselves in this position by a few simple inquiries as to what the actual experience had been on this side.

I do not know, but I suspect that this estimate of the situation has been the cause of holding up the introduction of the convoy system, particularly from New York. If this is true, it has cost the Allies some hundreds of thousands of tons of shipping, assuming that the convoy system is going to prove effective. That it will probably prove effective, at least against the present tactics of the submarines, seems to be sufficiently proven by the fact that it has been successful up to date. I have been devoted to this convoy system since the first week I got here in London. I have been putting it up to our Navy Department as strongly as I knew how and supported it with all the arguments that there were, and not until yesterday was there any reply on the subject. I leave you to imagine what sort of a position this places me in and how seriously it affects my relations with the people over here. I am happy to say that our Government has now expressed its willingness to help out with the convoy. I really believe that this will have the desired effect on the submarine campaign; that is, that it will at least reduce the losses well below the rate of building.

But in order to put this generally into operation it will be absolutely necessary to have more antisubmarine craft both for the purposes of handling the large convoys in question as well as for the purpose of convoying especially valuable cargo ships that make over 12 knots through the dangerous part of the submarine zone. This is why I have been so insistent that America should get a move on, not some time in the future, but just as soon as it is materially possible. If they would send over every single destroyer, including those of 400 tons, and every vessel that would serve the purpose of antisubmarine craft, and also all of the ocean-going tugs they could muster, I am very sure that within a short time I would be able to report that the Allies are winning the war: that is to say, that the submarine menace has been reduced below dangerous proportions.

You have been sending me your letters by vessels of ours that have been coming over, and you seem to imply in one letter that this is the only safe means. This is an error. You can send me your letters any week by passing them over to the O. N. I. and ask them to have them put in the pouch, in the same way that this will reach you.

I think you will understand that I do not wish to be offensive in any of my criticisms. I believe you will recognize that they have invariably been constructive. I am sending the information in this letter for your ear alone, but I hope you will be able to use it to good advantage. Of course, if at any time you should think proper to show this letter to anyone, that is entirely up to you. Remember only that I do not wish to endanger my relations with our own people by criticisms which are of such a nature that they could not, or should not, properly be put into official communications.

We were all distressed to hear through a cable from the British naval attaché in Washington of the sudden death of Capt. Chase. I assume that

this will mean that you will take his place, at least for a time. I also assume that it is the end of my hopes that you may come over here to assist me. For this latter reason I am now cabling requesting that Twining be sent as my chief of staff, and that Cone be sent as representative of the Navy Department in the submarine and convoy section of the Admiralty. Cone would be invaluable in this job. He is very anxious to come.

Always sincerely, yours,

P. S.—There is another point of grave importance. Nothing that I have been able to say has apparently convinced you people that there was great danger in continuing to send vitally important messages through the naval attaché's code and other similar codes that have been in use for over a year. It is a fact that is perfectly well known to all people familiar with the ordinary invariable code that if the enemy can get hold of a couple of thousand groups that have been sent, they could rapidly work out enough of the code to be able to read your messages. There is absolutely no deception about this. Any expert can do it. I was not speaking without the book. I got my information from the coding department of the British Admiralty. These people withdraw their codes and ciphers sometimes at intervals of three weeks. I asked them about the chances of our codes being secret, and they informed me it was not at all necessary for the enemy to have the code book. I could give you in this connection an extremely important piece of information if it would be at all proper for me to put it on paper or to mention it to anybody whatever until after the war.

The inclination to trust your own judgment and to disbelieve what I have to say on the question of codes has been the cause of very grave danger to our forces. It was a matter of luck only that we did not lose some destroyers of each group that arrived and also the *Melville* and *Dirie*. They were saved by the thoroughness of the precautions that were taken by the commander in chief at Queenstown. There is not the slightest doubt that the enemy knew all about the movements of these forces from the day that cables first began to be sent about them.

The same applies to the much more dangerous case of the troop transports that recently arrived in France. I implored the department not to send any messages concerning them in any other than the British Admiralty's secret code. They did so, with the result that the enemy was able to send a submarine to the westward of the rendezvous given and attack convoy before it was joined by the destroyers. She took advantage of being out that far (long. 25° 30' W.) to attack a British merchant ship, and Admiral Jellicoe has just told me that she is now (July 4) bombarding the Azores.

I am going to send over a recommendation as to the manner in which all future troop convoys should be handled, and I think that if you will look into it carefully you will see that it is an ironclad, providing the recommendations are accepted; and I ask you, if you have any influence, for God's sake get them accepted if you want to avoid a disaster which will bring humiliation upon our entire Nation.

Several merchant convoys have come in escorted by British antisubmarine vessels. Not only were no vessels lost but the convoys were not even attacked. Two vessels were lost from a Gibraltar convoy insufficiently escorted by French vessels.

The decision in this matter and the whole responsibility should be put upon the man—

- (1) Who is in charge of the escorting forces—the destroyers.
- (2) Who is informed from day to day of the position of the enemy forces (subs).
- (3) Who is in touch with all experience to date on this subject.

I am willing to take the responsibility. But it must be the whole responsibility if we are to avoid risk of a shocking disaster. It will always be extremely dangerous to give detailed directions from the American side which must subsequently be changed on this side (to avoid the enemy) at the expense of a dangerous amount of wireless. In this respect the last convoys made an awful exhibition.

The scheme, which will probably be sent in this mail, will render wireless messages wholly unnecessary, except possibly some with very low power if the escorting destroyers have difficulty in picking up the convoy, due to bad weather, etc.

THE SITUATION IN THE NAVY DEPARTMENT IN JULY, 1917.

In view of the attempt that has been made, by emphasizing the success achieved by the department in the later months of the war, when the early mistakes had been corrected and the department was working more effectively, to imply that this same condition obtained from the outbreak of war, I should like to read you a part of a personal letter which I received from an officer in a responsible position in the Office of Operations in August, 1917. This gives a truer picture of what the real situation was at that time than the testimony which has been introduced here in the hope of obscuring and excusing, after a lapse of nearly three years, the errors and delays of those early months of the war. The length of time that has passed, and the inevitable human tendency to read back into the past things which were accomplished later, is doubtless responsible for this attitude on the part of the witnesses, for, as this letter shows, there was hardly any misunderstanding in July, 1917, in the minds of these officers as to the condition in the department.

In response to my letter of July 3, 1917, which I have just inserted, Capt. Pratt wrote to me on July 22, 1917. I will read you only those paragraphs of the letter relating to the condition in the department and to the general situation at that time, omitting those paragraphs concerned with the personal direction of various situations and personalities, which I would consider it improper to publish [reading]:

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS.
Washington, D. C., July 22, 1917.

DEAR SIMS: This is practically the very first chance I have had to answer your interesting and most important letter. The one from Queenstown has in it the human touch which makes it not only most interesting now, but a bit of paper worth keeping and reading over later in life, when the damnable Boche is put away to sleep forever. The last one is one of the best pleas for assistance that has ever been made. I took a great many liberties with both of them. The first I showed to Benson, Mayo, Palmer, and Franklin Roosevelt. I wanted them to get in touch, so to speak. Schofield and McKean also read it. The second I showed to Benson, Schofield, Earle, and Pye, who happened to be here representing the fleet. And Winston Churchill, who is here, had it for two hours. In that time I think it went high up. Churchill is on the level and is working his very head off to bring about some very necessary reforms. When this war is over I expect a pretty fine book as the outcome, but right now he is devoting himself to the practical methods of getting action. He is very close to Roosevelt and to McAdoo, I think. As far as I can see it now, he is the one writer that naval men will trust to put the thing before the public in terms of the truth. He told me he was sent for to come to write up the Navy, and was given the hint, either by the Secretary or Mr. Creel, that laudatory articles would be appreciated. As he told me, he hadn't the stomach for that sort of thing, and, as he didn't have to do it, he started probing after the truth. He went to a lot of men and finally he came to me. I told him the straight truth, nothing more nor less. The size of it is the Navy has not been playing entirely fair or has a very mistaken idea, I fear. Anyhow, I think things are in the air, and I strongly suspect that is the reason why we have been having trouble in putting more drive into things, for I can assure you, from personal knowledge ever since I relieved Chase, that the admiral stands for the most offensive kind of stuff, and again and again he has personally tried to bring to a decision and action the plans I personally put up to him.

The CHAIRMAN. Who was the admiral?
Admiral Sims. Benson, his admiral.

especially in the matter of getting craft abroad. * * * I don't know about anything that happened before I took over, but I do know now that the admiral

seeks the advice of some of us; that he personally consults me I think in almost everything of moment; and that I have never for a moment had to feel that there was any drawback on his part. On the contrary, I have seen him pretty discouraged sometimes, but buckle on his armor and go after it again.

There have been a great many unfortunate things happened, some of them our fault and some of them difficult to avoid. It isn't easy, even when you try your best to get active measures taken to produce the results. For instance, in order to get a consolidated policy to work on, in which we could say to the district commandants, "We stand for this and will give that," I felt it necessary to call a conference here of the leaders. You must realize that we are up against public opinion to a certain extent, a very defensive attitude in many respects, and business interests, which will be interfered with if we take too drastic measures, always working against you. So it was necessary to get the district commandants in touch with the broad point of view and try to have them work with us. To begin with, I am distinctly disappointed with who is in complete charge of this service and who has the commandeering power, under the Secretary, in his hands.

I do not think it is necessary to read any more of that paragraph, but I would like to read the next paragraph.

(The balance of the letter is here inserted in the record as follows:)

He is the type of man too inclined to say no right off, and he is not inclined to be a liberal spender. It is hard to pry stuff out of that type, though his intentions are the best in the world. Naturally this policy pretty well fits in with the Secretary's on personal views, I suspect. Well, they came, the district commandants, and I personally prepared a set of questions, intended to get their views and to indoctrinate them with the big aspect of the situation. You would be surprised to find out how hard a time I had to get even small concessions. However, I think they went away wiser, and I feel sure it helped the cause.

ATTITUDE OF DEPARTMENT TOWARD REPRESENTATIVE ABROAD.

I think our—

When he says "our," he refers to officers associated with the department—

most grievous error has been in making too many suggestions. I have been a prime offender myself that way, but once the direct act has been put up, I have always been the first to say, "Accept what the fellow on the spot says, even if he is wrong." It does not follow that one can always agree, because the sources of information are not the same. However, it is wrong to persist in a certain line of conduct which is not in accord with your policies, because you are on the fighting front. And they should be agreed to, even if we think they are wrong. Your point is well taken. Much of the difficulty could have been cleared away had there been personal contact.

I do not think it is necessary to read any more of that letter, but I should like to have it included for technical people who may want to read it hereafter.

The CHAIRMAN. That is a letter from Capt. Pratt?

Admiral SIMS. Yes, sir.

(The balance of the letter referred to is here printed in the record, as follows:)

↘ The question of the convoy plan nobody here prides himself on. I think, and did, that only the grace of God pulled us through. * * * We, or I, or some of us, will probably have a hard half hour in the near future, and have it shown clearly to us how we nearly jeopardized the lives of the entire bunch. It isn't a soft job this one I am trying to hold down. I get many discouraging hours. Little credit, lots of faultfinding—no sea duty, which is going to count against me, but I think I am playing the game—and I feel that right now I can do better work for the cause, if what I do is in any way worth while, right here than anywhere else, and I don't like it either, for my health suffers from the work and the strain.

You can rest assured that all I can do personally to remedy the situation will be done. Cone's orders were made out once, and then held up. Long ago, when the decision was first made to hold me up, I said you should have somebody and suggested Twining then. That was two months ago. I rather think that in accord with the recommendation of the Admiralty to send some of our officers over to work with them, you may get some more. * * * No doubt about it, you have been up against it. Some of us saw it, but it was awfully hard to make others see it. And you can't pull everything through in this game over here. I started in this work with absolutely no personal pull with my chief. Hadn't even called on him. Why he ever chose me I don't know, unless it was because Chase wanted to hold on to me. Little by little he is beginning to have more confidence in my judgment, I hope, and up to date he seems satisfied. * * * In the matter of sending craft abroad we are a unit, and the admiral is with us. Naval districts are less than lukewarm. We had a conference the other night—four of us—and the outcome was the sending of more forces to you. You know it by this time. There will be another in a few days. I want all the coal burners, the Coast Guards, some tugs, and a lot of the fishing craft, schooner rig with a kicker in, make about 10 knots, sent over, besides all the yachts which are able to get across. But if you could see the difficulties and the objections raised, not from the admiral but other sources.

RESULTS OF PREWAR POLICY OF NAVY DEPARTMENT.

The next move on the program for preparedness is the outline of the characteristics we intend to stand for in submarines, and the policy in regard to them. * * * As a first starter and to show how the defensive policy we have stood for the last few years has caused the material, and particularly the personnel, to degenerate, a verbal order was given to prepare 12 subs, latest type, for distant service. An elaborate estimate of the situation was the result showing what the Germans could do and what we couldn't. This was followed by a drastic order to fit them for distant service and the date was set for the middle of August. It was pitiful. The admiral signed it like a little man, but the walls! They will sail if they go to the bottom, and if they do it will be and exposé of our past submarine policy which will bring hell a-popping around some of us; but they will go, if we can get it through. The next step was to put a very unfavorable indorsement on some of the fleet recommendations about bases in sheltered places. The whole idea savored too much of the defensive. They could not catch the idea that even if by the movement of our fleet we enticed several subs over here it was a distinct gain in the whole campaign. They wanted to train behind nets, nets, nets, and we feel that any such procedure is subversive of the proper fighting spirit. That the fleet must go to sea, certainly sometimes. The whole howl to keep the destroyers has been to guard the fleet. I maintain this isn't necessary, with our huge coast line, with an efficient information service, with an efficient sweeping organization. * * * So the fleet was directed to submit a program which called for a certain amount of time away from a base and spent on the high seas. * * * Admiral Benson signed it. So you can see how nobly he is backing up his assistants. I had rather take a loss in a dreadnaught or two than to break up the fighting spirit, especially as it is possible to carry out such a program scientifically if it is studied. I think that some oil burners will have to stay on this side and I will tell you why.

We are tied up hand and foot in this convoy of troops overseas. I don't, in face of the fact that submarines can attack beyond the power of your forces to give destroyer escort think it quite wise not to give our troop ships the benefit of some destroyer protection all the way across. That can be arranged for without bringing up too many destroyers, and the oiling arrangements can be met. * * * So it isn't the fleet or the defense of the coast which has held a minimum of oil burners back, but the convoy proposition of troops. All the coal burners should go to the European side, I think, and perhaps that will happen; you can't tell. Three of the *Worden* type in addition to the five *Prestons* are on their way to the Azores.

DEPARTMENTAL MISTAKES AND VIOLATIONS OF MILITARY PRINCIPLES.

Now, for the convoy proposition. We are handling the New York end, and eight ships of the *Denver* class are devoted to that work exclusively. Marbury Johnson is the senior officer for that task, and his instructions are to work in

instructions that all our naval cargo vessels going to British routed either with the N— Y— or H— convoys, and tions from the offices at those places. If any ships be ladports they will route with a convoy, if there be one. Otherwise to form one and sail together accordingly. I can't see how w any more heartily. If you have any further suggestions please we will be guided. I suppose you didn't like the cable you sending messages in the B. A. code.

Do you know the reason for the order? I suppose not. W Secretary did not like the fact that the British Admiralty coul your comebacks, which he felt could be construed as a direct s sonally. You should have read the first cable that was made. If ever a violation of the principles of war was perpetrated, th fortunately the coding officer showed it to me. I said this never c held it up overnight. In the meantime I prepared the one which after discussion it was accepted. If you will read closely it re creation. But when you give us hell, you don't always realize the are up against.

COOPERATION WITH THE ALLIES.

Everybody over here is proud of the work you and the bunch everybody wants to get to the front. Few, however, realize the t of the task confronting the allied forces, and many think that over there the problem would be solved. It won't be, and a lon before us all. But if England's Navy can hold out and if worst it can make a get-away to this side, I honestly think the Ameri aroused and intend to see this fight out to a finish, and Fritz is finished. I can't, bad as the outlook is, see any other outcome. one long year England fought against Bonaparte unaided, and t the Anglo-Saxon puts up his best fight against odds. Honestly, great change come over the spirit of this country, and I feel t voice of this people is with England to the end, and that end will Germany is humbled.

SENATOR PENROSE'S COMMENTS ON THE NAVY DEPARTA

In the course of his testimony, the Secretary of the attention to a speech of Senator Penrose, then a member c Affairs Committee, in August, 1918. I have never met from Pennsylvania, nor ever heard of his speech, before tary referred to it. In this connection, a statement to t Tuesday, May 18, 1920, by Senator Penrose is of unus especially because of his reference to the business side c of the Navy Department in these first months of the wa

I will submit an extract from the New York Times of May 19, 1920, "Coincidence of fact and truth," says P assume that the committee has read it probably in the will not be necessary to take up the time reading it.

(The extract referred to is here printed in the record a

Mr. Penrose said:

I have no desire to mix in the controversy over the conduct of th Navy Department. The war is over, and with it the vast aggre competency, extravagance, and inefficiency which characterized th of the administration.

I am not acquainted with Admiral Sims, and have never had any tion with him. If his statements bear any resemblance to mine

because we were both stating facts and the truth. I believe I did say casually, during the course of a debate, that the greatest inefficiency had prevailed in the administration of the Navy Department, not only during our preparations for war, but during the preliminary stages.

This ignorance and incapacity at times was almost incredible, and, in my opinion, it can be mathematically calculated that delays incurred thereby resulted in actual waste or loss of several hundred millions of dollars and several thousands of lives of American soldiers. The detailed figures of these were given by me in the brief speech referred to.

These delays arose chiefly because of infirmity of purpose and absence of business knowledge and ability on the part of the Secretary of the Navy. The facts are familiar to all men who had business with the Navy Department during those days. Contracts for iron and steel products and other necessities connected with the Navy were carried home night after night without decisions being rendered.

The delays were due to sheer ignorance and incapacity, and I know of no problem concerning the department—and I knew details pretty well—that could not have been promptly and honestly disposed of, and with full advantage of the Government, by a conference of any half-dozen business men in the country taking the matter up for deliberation and determination.

Later on the Navy Department functioned much better, and the chief reason for the change was the leadership of Samuel M. Vauclain and his associates on volunteer boards, whose decisions came to be followed promptly and without question.

BASIS OF CRITICISM OF THE CONDUCT OF THE WAR BY THE NAVY DEPARTMENT.

Admiral Sims. In view of the fact that conditions such as have been described by the department's own witnesses and in Senator Penrose's statement as existing in the Navy Department were existing in the Navy Department, it was, of course, inevitable that exactly the kind of blunders and mistakes were made which should have been carefully avoided. My testimony and the testimony of the various witnesses, including those called by the department, has given ample proof of these mistakes. In a personal letter which I wrote to Capt. Pratt on August 11, 1917, in answer to his letter of July 22, 1917, which I have just quoted in part, I made certain comments on the situation which are of interest in considering the question of the justification and origin of such criticisms as have been made.

That is a letter of the same nature that I have been reading, and I think that while it should be included for the benefit of people who read this from the technical point, I do not think it will be necessary to read it now.

(The letter referred to is here printed in the record as follows:)

Let me say again, once for all, that no reflection of mine in these letters to you are intended to be disagreeable to anybody. They are not intended as criticisms, but as suggestions. Of course, the language I use in them is not of the official kind; but don't let that worry you. I believe that the department is doing the best it can under very serious difficulties, some of which I believe I know, but many of which I know that I do not know, so remain as cheerful as you can.

I know a good deal about the pressure of public opinion and the pressure of business interests, and I think I can imagine the rest. In a word, you fellows in the Navy Department have my entire sympathy.

Now, let me say some more disagreeable things.

In accordance with the ordinary principles of warfare, I have been notified that the disposition of the forces on this side will be up to me. Immediately thereafter, and sometimes in the same message, I am informed that certain forces are to go to certain places. I assume that the reason of this is that

political considerations are those which govern. Can you be on the other side that you would know the effect of these political considerations as well as I would, after discussing them with the people concerned? Can you be sure that you have made the best disposition of the forces? You may have done so, but I do not believe it. I would give an upper right front tooth for the opportunity of redistributing some of the forces over here. I have not the slightest doubt in the world that a certain redistribution would result in the saving of a very considerable amount of shipping.

There is no doubt in my mind, or in that of anybody over here, that the destroyer forces now in the Azores are being wasted. They could not even be used with safety to escort troops, because they know nothing about this difficult job, which can only be safely carried out by those who have had sufficient experience, and those who are on to the method of communication that we use, etc. For this reason I have asked that these destroyers be sent at once to Queenstown, at least to remain there long enough to be indoctrinated.

There are other recommendations that I would make about the distribution of forces that have been assigned to certain stations by the department without my opinion having been asked. For example, the six revenue cutters would be of the greatest use during the coming winter weather off the coast of Ireland. I do not think that they are necessary at Gibraltar, where that force will be principally occupied in escorting convoys clear of the danger zone. I hope there is no question of personal considerations in the assignment of these forces.

I note by the organization of the Atlantic Fleet which we have just received, that Wilson is put down as the commander of the patrol squadrons. As he is stationed at Gibraltar, and in that neighborhood under the command of the British admiral of that station, he could not also be in efficient command of the forces on the coast of France, who are under the direction of the French ministry of marine. The question of communications alone would render it impracticable to carry out any efficient direction.

I have therefore written a letter to meet Wilson at Gibraltar, and placing him in command of the forces in that neighborhood, but not in command of those on the coast of France.

We have been doing our work in two rooms in one of the embassy buildings, but now that we have so many people, and now that we have consolidated our communication (coding department) with that of the naval attaché, we have been obliged to move into another building. The staff is now rapidly becoming organized, and the strain has been eased up very greatly.

We can carry on the current business, but you must understand that there is a lot of stuff waiting around to be done which can not possibly be done without the kind of officers that I have indicated. To cite but a single case, you say that you need information as to the type of a submarine that we should build. This is a very serious question, and should be gone into very thoroughly by a very competent man. If I had the man I could produce the goods. Without him, I could not produce anything in which I would have very much confidence. The same applies to other branches, as, for example, aviation. If you want reasonably complete and reliable information on the subject, and kept up to date, you must send a competent man on the job.

Do not forget that everything is not only wide open, but the British seem to be anxious to give us every possible thing that we want. It is up to you to send over for this if you really want it.

One of the most encouraging things in your letter is the information you give about the laying down of 106 destroyers of the standard type, and 150 of the special kind. What a pity these are not now in the water. If we had begun our preparations for war three years ago they would be in the water and the submarine would no longer be a menace. We could convoy everything both ways, and put him out of the business of destroying commerce.

As for our submarines I am glad to know that the department has taken the attitude that they must sail for this side. They can be of the greatest use. It was a very hard jolt to us to be informed that none of them were fit for duty on this side.

Admiral Jellicoe said he would like to have Pye give them a hand in the solution of a problem which is now being worked out by a body of officers under the direction of Admiral Jackson, president of the War College. This problem is an estimate of the situation as to the possibility of "digging the rats out of their holes." Of course, everybody who understands these matters at all knows that the rats can not be dug out of their holes until these holes are uncovered by the Army—that is to say, that a successful attack on modern forti-

fictions, protected by mines, submarines, etc., is impossible. The object of the study is really to arrive at conclusions that can be passed out to the very numerous suggestions that are made in this line. Many of these are by such prominent people politically that they can not be neglected. A study of this kind will save the trouble of making individual explanations to every civilian who thinks that he knows more about naval warfare than the admiralty. However, such a study necessitates the collection and presentation of all of the means that would or could possibly be available for such an expedition. It will also throw light on the means that would or could or should be made available for blocking the rats in their holes.

Of course, these studies have been made since the beginning of the war, but they were made by naval officers for naval officers. The object of the present study is to present the matter in the form which will be intelligible to the civilian.

I am inclosing you a copy of an intrabureau order issued by the Paymaster General. This is a very extraordinary document. The only thing he has neglected to say that if the man on the spot does not succeed in carrying out his mission he should promptly be executed. McGowan's order is based upon the most fundamental of all military principles. If all those connected with the administration of our Navy would be guided by the same principle, we could undoubtedly end this war a good deal sooner.

Let me give you a warning about setting too much store upon the opinions of officers who come over here for a short visit, or who come over in charge of armed guards, etc. Of course, it is human nature to form an opinion, even if you have not got any reliable information to base it on. It is also human nature to express this opinion when questioned about it. People who have been over to Washington and come back again have brought us weird tales of the opinions expressed and the information supplied by such officers. I do not know that this does us very much harm unless it is in an official form, but here is a case in point which is more serious.

Once again, let me repeat, that nothing in this letter is intended in a critical or carping spirit. Anybody is likely to make a mistake. That is why they put a bit of rubber on the other end of a lead pencil. We can not get together (and keep together) unless we point out what we think to be errors. If we nurse our differences in sullen silence we will drift farther and farther apart.

We have had an unnecessarily hard and anxious time over here, and it would be a wonder if we had not made mistakes that perhaps would not have been made under less strenuous pressure; but you fellows have not been wholly without sin—though theoretically you must always be blameless.

However, we are of a forgiving spirit, for we know that your trials must have been many, heavy, and perplexing, and you have our sympathy (if you care for it).

But, as I said before, there is every advantage in speaking our minds and keeping the slate clean. It is simply your misfortune that I have selected you to take the brunt of my growls—or what you doubtless call my ill humor.

Do not for a moment assume, however, that I do not understand the difficulties under which you have had to work, or that I do not fully appreciate all you and the gang are doing. I do appreciate it, particularly the trouble you have taken to pound out your illuminating letters. They have been invaluable. They have cleared away many misunderstandings. They have given me my first clear idea of conditions on your side, and I can assure you that I am profoundly grateful. Not, however, to the extent of refraining hereafter from pasting any of your ideas and arguments that I consider to be punk. I consider it no unimportant part of your job to put up these arguments, and no less an important part of my job to swat them in my retiring and modest way whenever I can show that they are full of large ragged holes. I believe you have done, and are now doing, admirable work. I do not envy you your job.

In all this, you must give me credit for being reasonably honest. You must not assume that because I am pro-British and pro-French and pro all the rest of the Allies, I am necessarily anti-American. I have lived a long time in the United States (46 years). I have shown some interest in the efficiency of our Navy. I am 59 years old and have a modest reputation for reasonable independence of thought. So do not assume in the pride of intellect that I am owned by the British or any other admiralty. If you do not think a pro-ally is the right kind of a man for this job, they should have sent a pro-Prussian with a trunk full of bombs.

So, if you can give me credit for just plain common sense and some little knowledge of the art of war, and if you can continue to hold up your end with good humor, I will manage to remain cheerful.

May the Lord be with you. Remain as cheerful as you can. Give my best to Admiral Benson and the gang in the office.

CONSIDERATION OF MOTIVES.

Admiral SIMS. In concluding this review of the conduct of the war by the department during the early months of 1917, I desire to call attention to various statements which have been made before this committee as to the motives which actuated me in inviting attention, in my official letter to the Secretary of the Navy of January 7, 1920, to these mistakes of the department. Of course, after the testimony that has been given by the department's witnesses there can be no question whatsoever that these mistakes were committed. There can also be no question but that they were well-known in the service. There equally seems to be little doubt but that official and authorized statements of the department had revealed an inclination to bury and forget the past. Nothing could be more dangerous to the future administration of the Navy and the efficiency of the first line of national defense in the future than any attempt to conceal such mistakes, or to pretend that none were committed.

It is quite true that at various times previous to my letter of January 7, 1920, I had referred, in letters to officers in the department, to what took place in the early months of the war. I have just read you parts of my letter of August 11, 1917, concerning this very matter and at later times I frequently reverted to the same subject. It seemed to me necessary that these months should be carefully reviewed in order that in the future should the country ever again be forced into war we could get our Navy into the field more quickly and more effective than we did in 1917. Thus, on August 13, 1918, I wrote another letter to Capt. Pratt, which the Secretary of the Navy has introduced before this committee—or at least he has introduced the first paragraph. For the sake of accuracy, I think that the other paragraphs should also be included, and I will therefore read you this letter in full.

Only the first paragraph of this letter was quoted by the Secretary :

AUGUST 13, 1918.

MY DEAR PRATT: When history of this war comes to be written there will be a number of features that will not be very creditable to the United States Navy. If hearings are held on the conduct of the war, a number of rather disagreeable facts must inevitably be brought out. Without going into details, I may say that, as far as the Navy is concerned, we will have fought this war with the bulk of our experienced personnel of the Navy on the side of the ocean where there is no war. We will have to be able to show that it was entirely necessary that we should have had to fight the war over here with a large proportion of reserve officers who did not have the necessary experience.

The rest of the letter was not quoted by the Secretary.

With this little preface, I invite you to read the inclosed paper prepared by Lieut. Commander Carter entitled "Set a Thief to Catch a Thief." See if you can find any holes in the argument.

I am not writing you much these days because I send you always a copy of my letter to the Admiral, which contains all of the items I wish to touch on outside of the general report.

I am naturally very much interested that you are really attempting to get up a staff organization in the department. It is rather a curious reflection that the Navy Department should have watched a war for three years and been in a war for one and a half years without having organized a practical piece of machinery to carry on its work.

However, cheer up!

Verys sincerely, yours,

SIMS.

Capt. W. V. PRATT.

*United States Navy, Office of Naval Operations,
Navy Department, Washington, D. C.*

SENATOR PENROSE'S CRITICISMS OF THE DEPARTMENT IN 1918.

The Secretary of the Navy in his testimony in referring to the speech by Senator Penrose in the United States Senate in August, 1918, in which criticisms very similar to those which I made in my testimony were directed against the Navy Department, by his manner seemed to imply that there was some underground connection between his criticisms and my testimony. But, as I have already stated, I had never heard of his speech and until the Secretary included it in his testimony I was not aware that any such criticism had been made.

Moreover, I do not know Senator Penrose. To the best of my knowledge I have never seen him, and I have never communicated with him, nor has he with me, by letter, telegraph, telephone, through a third party, or by any other means whatever. Also, I may add that, to the best of my recollection, before this investigation was begun, I had had no communication upon this or any other subject with or from any Senator or Representative, or any other persons occupying a similar position, or with any persons affiliated with such officials; and since the beginning of this investigation, my communications with the officials indicated have been confined to necessary correspondence with the chairman of the committee. Far from indicating collusion between myself and Senator Penrose, it seems to me that the Senator's speech is an indication, rather, of how well known, in informed circles in Washington, were these early mistakes and delays of the Navy Department. It is not therefore surprising, but inevitable that any one informed concerning the situation should describe it in very similar terms. It merely serves to indicate that well-informed men, who are interested in a certain subject, are apt to arrive at the same inevitable conclusions. Senator Penrose had been a member of the Naval Affairs Committee of the Senate, and doubtless from the information which he had gained in this capacity he was, in 1918, fully aware of the conditions which this investigation has revealed.

DEPARTMENTAL SUMMARY OF NAVAL OPERATIONS IN THE GREAT WAR— CAMOUFLAGING THE COMMISSIONS, ERRORS, AND DELAYS OF 1917.

It has been more than implied that my criticisms of the Navy Department are of a recent origin and are inspired by ulterior motives. I have already shown you by letters written in 1917 and 1918 that my views are of long standing. In order to correct still further any such notion, I should like to invite your attention to

another of my letters to Capt. Pratt. Capt. Pratt in his testimony has included a memorandum which he, as Acting Chief of Naval Operations, submitted to the Secretary of the Navy on the 15th of November, 1918, after the armistice, as the official summary by the Office of Operations of the Navy's activities in the war. On January 28, 1919, I wrote him the following letter, commenting upon his memorandum and making practically the same criticisms which I have placed before this committee in my testimony and which were included in my official letter to the Navy Department of January 7, 1920.

That is to say, my letter to Capt. Pratt contains substantially the same criticisms as in the letter which I officially submitted to the Secretary of the Navy. I do not think it is necessary to read the whole of it to you, but I should like to call attention to the closing paragraph.

(The letter referred to is here printed in the record as follows:)

JANUARY 28, 1919.

MY DEAR PRATT: I received a few days ago a copy of the letter from the Chief of Naval Operations to the Secretary of the Navy, dated November 15, 1918, entitled "General character of the operations of our naval forces during present war."

It is wholly impossible for me to pass this letter over without comment, to you at least, but I would impress particularly upon you that this comment is made not in anger but in sorrow. It is very difficult for me to believe that you consider the letter in question as being either an adequate, and in many respects a just, official review of the part we have played in the war and, particularly of the policies which have governed the department.

Let us take paragraph 2, entitled, "The general character of the war," which states that the present war had been going on for so long before we entered it that it was possible for the department to make a fairly accurate estimate of the exact part we should take in it, were we called upon to enter the conflict.

This to me is a very remarkable statement, because if I had been asked for my opinion, it would have been quite the opposite. At any rate, does it not seem a bit strange to you that, if anything approaching an estimate of the exact part we should take in the war was in existence, in anyone's mind at the department in March, 1917, it was not in any way imparted to their representative whom they chose to send abroad to consult with the Allies?

I was called to Washington at that time and saw the principal dignitaries of the department, including the Secretary and the Chief of Naval Operations, and the only instructions given to me were to guard against allowing us to be drawn into "pulling the British chestnuts out of the fire."

The same paragraph of the letter goes on to refer to the comparative degree of security with which we were permitted to carry on our preparations, in view of the command of the sea held by Great Britain, and reaches another startling statement to the effect that "it therefore became the principal mission to throw the whole of our naval forces into those operations which would tend to strengthen the points in which the Allies were weakest."

I can only comment in regard to that statement that, if the department really had such a mission, it was very slow in carrying it out: and, furthermore, that I wasted a surprisingly large number of cable words and mental energy. In fact, the dictionary was found rather inadequate in those days in furnishing us with words which would carry sufficient weight. I fear an impartial judge would find it difficult to reconcile your paragraph 2 with the cablegrams exchanged between the department and myself during those first months after we entered the war. In this connection I attach a copy of a letter which I thought it was necessary to submit to the department on July 16, 1917, with the sole view of attempting to convince the department that the mission set forth in this letter of yours of November 15 was the proper mission.

I also would refer you to the voluminous personal correspondence which I carried on with you during those critical months in question. Stated briefly,

I am laboring under the impression that it was necessary to put up a very severe and protracted scrap indeed with the department in order to get them to send over available destroyers, small craft, tugs, and even battleships, in order to carry out the mission, as stated in this recent letter of throwing all the force we could "into such operations as would tend to strengthen the points in which the Allies were weakest."

The fight, and it was a fight, to get destroyers over was the principal one, and, of course, you know that I finally had to appeal to the ambassador here to lay the matter before the President. I did not feel that this was going over the head of the department although perhaps it might have been so construed. It seemed impossible to get the desired action out of the department, and the situation was so extremely critical. We were losing the war; in fact, at such a rapid rate that I finally felt it my duty to lay the entire situation before my immediate superior here abroad, the ambassador.

After those trying days and efforts in appealing for small craft on what I considered to be our "home front" over on this side, where the war was going on, I also, after a thorough consultation with the commander in chief of the Grand Fleet and the head of the British Admiralty, recommended on July 21 that four battleships with six destroyers be sent to reenforce the British Grand Fleet.

It was fully four months later, and then only after the Chief of Naval Operations had come abroad to see the situation for himself, that that battleship force actually sailed from home.

Let us now turn over to paragraph 4, entitled "Arming of our merchantmen." This is an astounding paragraph, indeed, and it is solely with sorrow that I refer you to the cablegrams exchanged and the personal correspondence carried on in those early days of the war. I recall that the department in June, 1917, saw fit to tell me in a very decided manner that the arming of merchantmen was not to be viewed in any sense as a minor measure, but, on the contrary, was the most effective measure to be taken against the submarine menace.

I fully realized, and so stated, the importance of the arming of merchantmen as one of the many measures to be taken against the submarine. The point upon which I did violently take issue with the department was the department's assertion that arming merchantmen was the principal measure, and that it was a solution of the antisubmarine campaign. It was, of course, a minor though a necessary measure.

I recall finding it necessary to point out to the department as late as June 28, 1917, that in the Queenstown area alone during the previous six weeks 30 armed ships had been sunk by torpedoes without a submarine being seen; also that three mystery ships, heavily armed, manned by expert naval crews with much previous experience in submarine attack, had been torpedoed without warning; also citing numerous cases in which a submarine had made successful gun attacks from an advantageous sun position against armed ships, further pointing out that, regardless of size of armament, caliber of guns, or skill of gun crews, ships were practically helpless against submarine attack. The arming of merchantmen was distinctly a minor measure, no matter how justified it might have been. It was to be classed with "efficiency of lookouts" and many other necessary but minor measures.

The principal issue, or rather the point of view of the department which gave me great concern (and the note of which I still see sounded in this recent paper) was that any measure taken with our own merchant fleet seemed to be sufficient measure for the time; that is, at that time. I seemed to me in those days that I could not get the department to realize that it was necessary to view the situation broadly, to look upon the protection of allied merchant ships with as much importance as the protection of our own. That statement may be challenged by some, but I only wish that anyone who sees fit to challenge it could have been over here in those critical months of April, May, and June, 1917; could have been in the Operations room down at Queenstown at night and seen the ships going down like ninepins. It was nothing less than heart-rending, and it was difficult to have patience with any talk about arming merchant ships or any other measures which did not promise more effective and quicker relief.

I do not wish to convey an erroneous impression to the effect that I even, or even now, belittle in any way the value of arming merchantmen. The point I so earnestly desire to bring out is that it was impossible to receive with any degree of patience any arguments on the merits of this measure, and others, as

long as the one all-important measure was allowed to run day after day without action; that is, of sending destroyers and light craft of every description and sending them immediately without a moment's delay.

Also, without any intention of picking technicalities in this present letter of the department, I do object to conveying the general idea that, after entering the war, the arming of our merchantmen had any material effect at all upon the success the enemy was enjoying in those critical months of the summer of 1917. I also fail entirely to follow the reasoning that the arming of our relatively few merchantmen is what obliged Germany to develop the cruiser type of submarine. I, personally, have always considered the cruiser submarine a mistake from Germany's point of view, but undoubtedly what led her to develop it was the fact that we made it too hot for her with our escort craft, and other measures, in the so-called submarine zone; that is, within reasonable radius of her bases; and she seemed to think that she would have more success by building larger submarines which could go farther afield and remain there for much longer periods.

I now turn to paragraph 5 entitled "The sending of destroyers." It is, to say the least, a rather startling statement, contained in the opening sentences, to the effect that the demands to send destroyers abroad was in the first instance in any respect sentimental, and based upon a desire that our fleet should be seen on this side of the ocean. I note further that it was soon discovered that the destroyers had a very distinct use abroad apart from any sentimental value.

I arrived in England on April 9, and on April 14, after taking time to make sure of my grounds, I sent my first report of the situation. Up to this time I had heard nothing from the department. A copy of this dispatch is attached in case you may not be able to locate it in the department's files. It was very comprehensive, and I have never had any reason to change my mind in regard to any of it. You will find that I did my best to make the seriousness of the situation known, and pleaded that the maximum number of destroyers, accompanied by any smaller antisubmarine craft available, should be sent at once, together with repair ships and staff for bases. I also pleaded for a continuous augmentation and antisubmarine craft to reinforce such advance forces as you found it possible to send. I note that I even pleaded for tugs in that first message, and you will find that, from then for practically the next twelve months, I continued to plead for tugs. I have never been able to believe that, if the seriousness of the situation had been realized, and if it was the intent at home to really throw our maximum forces into the war, we could not have produced many tugs.

The whole trouble seemed to have been the inability of you people at home to adopt and play up to the very mission that you now state in this letter; that is, to treat our service and our facilities and material as "reserves," and to throw them in wherever we could bolster up in any way a weak spot in the forces of our allies over here. It meant nothing else but disintegration of our fleet, and those bald words seemed to be the stumbling block. We did not seem to be able to get away from our habits of peace; the fleet must have its train, although there were excellent navy yards there which could easily have taken the place of the train—navy yards which were unmolested by the enemy in any way. Even to this day, with one or two outstanding exceptions, our forces have not been thrown into the game as they might have been.

Speaking very broadly, I can not look back with any warm feelings toward the way the Navy Department went into the game the first six or eight months of the war. To enumerate a few of the outstanding points in which they failed to support me, and mind you, which subsequent events have forced them to adopt, are as follows:

First. The attitude was that at the end of a cable 3,000 miles away, I must prove every statement I made. Some months after we had been in the game the department actually came at me with a message to the effect that they were always willing to consider any plans which might be proposed, implying that no plans had been submitted, and apparently expecting the Allies or myself, I don't know which, to argue and submit long studies and estimates of the situation by cable.

Second. Forces were not sent as rapidly as they could have been, in fact, there was a distinct reluctance to send them. I assured the department that we were able to keep comparatively accurate track of where all submarines

were at sea. I found after the destroyers got over here that they had been strenuously engaged in high-sea patrols as far south as the Caribbean. It would seem that the only reasonable course to pursue, as soon as it was even possible that we were to enter the war, would have been to have sent all the destroyers to the yards to have everything put right, all machinery thoroughly overhauled, and the ships prepared in every respect for long distance and arduous service far from their bases. This was not done, however, speaking at least in the majority of cases. If my memory does not fail me, many destroyers landed up over here almost direct from futile cruising in the Atlantic and down south, the personnel at the time all convinced that they were wasting their energies. I recall one destroyer captain relating an experience of receiving an urgent message, down somewhere in the vicinity of Cuba, to proceed north to prepare for distant service, and how he was rushed to the yard and constantly besieged with telephone messages as to when he could get out.

Third. It is, of course, needless for me to elaborate upon the fact that I was left over here for four months with but one aid, and the fight that I carried on, even after that four months, to get a proper staff in order to discharge my responsibilities to the service.

Fourth. I might point out here that at no time have I been given any choice in the selection of my subordinate commanders (although I repeatedly asked that I be consulted), and that on the few occasions when I have particularly named men no action resulted. I was told that I did not want this or that officer whom I requested because of this or that incident of his past, or because he was "not available." What more important duty could there have been than enabling me to touch with the bewildering game that was going on over here, in order that the department might at all times be correctly informed? The point I tried to make was that the department should hold me absolutely responsible, thus having but "one throat to cut," and hence, if I asked for a convict out of Sing Sing, why not give him to me?

There are many other points in the paper which I might comment on as I have above. My principal objection to the paper is that it is almost wholly misleading. For example, it would lead one to believe that it took very little time for the department to decide to support the convoy system and to withdraw from other parts of the world our fighting ships which could in any way aid. This was certainly not the case, even after definitely agreeing to go in on the convoy system, requests for cruisers and other ships to help out were constantly met with statements that the ships were "not available."

As to your paragraph 12, on the operation of our forces abroad, I fail to note two very important items. The first, I really believe, is the outstanding accomplishment of our service in the war, and that is the character of cooperation which we have accomplished with the other naval services engaged. I am quite sure that it is unique and without precedent in the history of allied warfare, either afloat or ashore, and it has not been a path strewn with roses.

I will not go into the details here. In fact, it would not be proper for some time to come to tell of all the troubles which have beset my path in this particular, to say nothing of the troubles and difficulties which have confronted all of the various officers who have served under me.

The other item is the mine barrage in the North Sea. Entirely apart from any effect which it may have had in the campaign against the enemy, I consider it one of the finest feats of emergency organization and seamanship which has ever been pulled off in any service. I also see no note, or at least no adequate recognition of the remarkable spirit of the officers of the destroyers who have worked in the war zone. Under the most dangerous conditions, they have stopped at nothing; they have sized up favorably with destroyers of any other service, and all this they have accomplished so magnificently, under a very tremendous handicap, but without a word of complaint.

I refer to the fact that they have constantly turned over their personnel, accepted wholly untrained and inexperienced men and officers, not once, but time and time again. Just stop and remember the howls that used to go up from the destroyers in the old days when you tried to take this or that man away, or to shift men around to even things up. Unquestionably one of the principal factors in efficiency of naval vessels is that of permanence of personnel, but these small craft over here, who have borne the brunt of the work, have cheerfully and without a single instance of complaint sacrificed this all-important requisite almost completely.

There are many other points in the letter of the department which it is hard to resist commenting upon, but I think I have gone far enough to show you that, if I am ever called upon, I can not support any such paper as the one in question. Your paragraph 20, on the planning section of the department and of my staff, is particularly trying.

Please understand that I am not in this letter criticising you. I have been too far away, and I know the intricacies of the working of the department too well, to think for a moment that you deserve any lion's share of the credit or discredit which is coming to all of us some day.

I know that the department is not now and never has been properly organized. During the war it has not had the semblance of a general staff organization, and hence the majority of the difficulties which have confronted us.

I attempted, within a very short while after I arrived abroad and saw what was ahead of us, to build up something of the nature of a general staff, believing that I could in some measure at least fill in a much needed defect of the department at home, but it has been an uphill fight. Now that the war is over, I have the necessary officers and facilities.

And now, after all the trials due to lack of support in time, and due to all the blundering, I receive a copy of this letter, from Operations to the Secretary, setting forth to him (which probably means to the outside world) the claim to have always foreseen everything, planned everything, and supported us up to the handle. Even claiming that the department had foreseen everything even before we came into the war, and had put all necessary measures into operation immediately.

Mind you, I do not say that the letter specifically says that they were the plans of the department, or that they were put into operation immediately, but I do say that the letter is very misleading; that it certainly would lead anyone who was not posted to believe that such was the case. Is it any wonder therefore that I can not pass it by without comment?

All the above, not to mention the stinging injustice such a letter does to the personnel on this side.

Admiral Sims. I will read the last paragraph [reading] :

However, the war is over and apparently we have won, and so I suppose the skeleton in our closets should be moved down into the basement and not again disturbed.

I am quite ready to adopt such a procedure, but I must strenuously object to misleading those to whom the service is justly accountable.

I trust that there will be no post-mortem examinations as there have been in all past history, but, if there are, the cablegrams exchanged between the department and me during the first four months of our participation in the war will be, I think, pretty damaging testimony to the game played by the department, and will make this departmental letter, dated November 15, 1918, look pretty sick.

Always, very sincerely, yours,

W. S. Sims.

Capt. W. PRATT, United States Navy.

REVIEW OF CONDUCT OF THE WAR BY THE NAVY DEPARTMENT.

The testimony of the department's own witnesses which has been quoted, together with other evidence that has been brought before this investigation of this committee, seems to me to have established conclusively the following features of the manner in which the Navy Department functioned during the war:

First. In the years before the war, no real effort was made to get the Navy in a condition which would make possible immediate and effective operations under the conditions which would obviously prevail in the event of war with Germany, though this war had seemed probably after 1915.

Second. That the Navy Department was responsible for the shortage of personnel, which made it impossible adequately to man the

vessels of the Navy in 1917, or to provide the necessary officers and men required for the war expansion of the Navy.

Third. That although the war had been in progress long enough for the probable activities of the United States Navy to be foreseen, in the event of America's entrance into the war, no plans whatsoever had been made to meet the special conditions under which the Navy had to fight.

Fourth. That the Navy Department's organization was not adequate to meet the situation which developed after we entered the war. The Secretary not only seems to have failed to initiate an effort to improve or correct the inadequacy of the organization or the lack of preparedness and plans, but also strenuously resisted such efforts as were made. A makeshift reorganization to meet war conditions had to be devised by the individual effort of many individual officers, working for the most part independently, and often without any coordination whatever of their efforts. Only their own initiative and voluntary cooperation made possible the achievements of the Navy in the war.

Fifth. That for at least the first three or four months after we came into the war, the Navy had no consistent policy, or if it had any, failed to carry it out. It had no adequate war plans or, if such existed, they were not put into effect.

Sixth. That during this time, the Navy Department's representative abroad was ignored and his recommendations in practically every case disregarded. Requests from the Allies for reinforcements in many cases were unheeded. No organization was created by the department to meet the situation, by gathering the necessary information and by taking the steps to meet the situation revealed by this information.

Seventh. That during these months, the activities of the Navy Department were inspired not by the announced policy of cooperating wholeheartedly with the Allies and defeating the submarine campaign, but were dictated essentially by avowed motives of prudence and self-interest; by the desire to defend the American coast, American shipping, and to maintain intact the American battle fleet, regardless of what fate might be overtaking the Allies. This defensive policy was carried to such an extent, that, to cite only one example, naval vessels were sent to patrolling the North Carolina Sound in waters impregnable by submarines.

Eighth. That at the time the President sent his dispatch to me, July 4, 1917, the policy which he announced had not been followed by the Navy Department. On the contrary, that its action had been in contradiction to the very principles which the President laid down.

Ninth. That after the President's message was sent to me, the department suddenly displayed a new spirit in its attitude toward the Allies and toward my recommendations; immediately adopted the convoy system; sent many additional antisubmarine craft abroad; provided me with additional officers; adopted a new destroyer program; and took many other steps looking toward an active prosecution of the war, all of which measures could and should have been put in force at least three months earlier.

Tenth. That these conditions were well-known in the Navy Department at the time; that the officers in the department themselves com-

mented upon and criticized them; and my letter of January 7, 1920, was written only because I feared that these errors would be so completely forgotten that their repetition in future would be more than probable; and that I considered it my duty officially to invite the department's attention to them.

The CHAIRMAN. I think probably you have had enough for to-day.

Admiral SIMS. Well, I am all in as far as my voice is concerned.

The CHAIRMAN. The committee will stand adjourned until 9.30 to-morrow morning.

(Thereupon, at 4.35 o'clock p. m. the committee adjourned until to-morrow, Friday, May 28, 1920, at 9.30 o'clock a. m.)

NAVAL INVESTIGATION.

FRIDAY, MAY 28, 1920.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE
ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 9.30 o'clock a. m., in room 235, Senate Office Building, Senator Frederick Hale presiding.

Present: Senators Hale (chairman), Ball, Keyes, and Trammell.

The CHAIRMAN. The committee will come to order, Admiral Sims, will you please continue?

TESTIMONY OF REAR ADMIRAL WILLIAM S. SIMS, UNITED STATES NAVY—Continued.

The CHAIRMAN. You may proceed, Admiral Sims.

Admiral SIMS. Causes of unsatisfactory conditions in the Navy Department. The testimony of the department's witnesses.

In the general classification of the testimony of the department's witnesses which I made in beginning this statement, I referred to their opinions as to the causes for the conditions prevailing in the Navy Department in the early months of 1917.

In the review which I have made of the testimony of these witnesses as to the conduct of the war by the department, I have referred, at various times, to their opinions as to what was responsible for the mistakes and delays revealed.

I will confine myself at this time to a brief general analysis of these opinions.

In my preliminary statement, I said:

The department's witnesses, in testifying with regard to the responsibility for the conditions which have been brought to light, are in general agreement that these are due primarily to three causes.

First. Faulty organization of the Navy Department.

Second. The policy governing the department's action previous to our entrance into the war and during the early months thereof.

Third. The failure of the responsible head of the department to direct the action required, both before and after the outbreak of war, to meet the urgency of the situation to prepare the Navy for war, and to strike at once on the fighting front with all available forces.

Faulty organization of the department: There has been a unanimity in the expressions of opinion by the department's witnesses concerning the organization of the department. All agreed that the organization, as it existed in 1917 and as it exists now, is faulty; that it is not adapted to meet war conditions; and that in the early

months of the war, whatever errors were committed were probably due, to a large extent, to the faults in organization.

Admiral McKean and Capt. Pratt, whose positions and responsibilities in the Office of Naval Operations during the war were such that they had perhaps a better opportunity than any other naval officers to view at close range the workings of the organization under war conditions, were especially emphatic on this point. They pointed out the fact that while the creation of the Office of Naval Operations provided the nucleus around which a war organization was ultimately built, this office did not have sufficient authority or adequate personnel to handle efficiently the formulation of plans for war and the material preparation of the vessels of the Navy for active operations nor to direct those operations. They were also in agreement in stating that it was only the voluntary cooperation which they obtained from the various bureaus and divisions of the Navy Department that made possible the ultimate successful conduct of the Navy's operations in the later period of the war.

Lack of adequate plans due partly to defective organization: These witnesses explained the lack of adequate plans at the outbreak of war by showing that previous to our entrance into the war there had been in the Navy Department no one body constituted to make plans and responsible for making plans, nor had any machinery been provided by which such plans would be automatically reviewed by the higher authorities and put into effect as official departmental plans, to govern the action not only of a few officers who happened to be in Operations and were willing to cooperate together voluntarily but also of the various bureaus who were under the authority of the Office of Naval Operations and who were subject to direction only by the Secretary himself unless they voluntarily chose to cooperate with Operations and follow out the suggestions and recommendations of the officers of Operations.

Previous to the creation of the Office of Naval Operations the only planning body in the Navy had been the General Board: but the General Board, because of its nature, had always been more concerned with general policies than with plans. Most of its recommendations can not be considered as being plans in the real sense of the word. In the absence of such plans, however, these recommendations necessarily were the only substitute the department had.

After the Office of Naval Operations was established the Chief of Naval Operations was charged, among other things, with the preparation of plans, but was not held responsible for so doing: nor was he given any authority to approve plans that could have any binding effect on any other part of the Navy except his own office. The plan-making function, therefore, was divided, between 1915 and 1917, between the General Board and the Office of Naval Operations.

Results of the lack of an adequate plans division: After the war began, as Admiral Benson's testimony and that of his assistants clearly shows, such plans as they described were in reality only informal agreements made in the Office of Naval Operations and carried out by the bureaus in voluntary cooperation. Such plans were never officially approved, and in most cases were not even set on paper, but were merely communicated verbally in conferences or discussions or in informal memoranda to the various bureaus and

divisions of the department, which had to carry out the details. No real planning section was established in the Office of Naval Operations until August, 1919.

Capt. Pratt, in his testimony, in referring to the planning work of Operations, attempted to maintain that there was a planning section from February, 1917, on, but under cross-examination explained that this planning section was in reality only a more or less voluntary group of officers whose main duties were administrative and whose plans were chiefly concerned with the detailed execution of their own administrative duties. Each of these officers was absorbed in the administrative details of the duties assigned to him, and found these so heavy a burden that he had little time for any planning except to provide for the detailed carrying out of the decisions made concerning each particular situation as it arose. There was a general agreement among the witnesses that there was no attempt to provide beforehand a general estimate of the whole situation and to proceed from this estimate to decisions affecting the whole Navy's operations in the war, so as to coordinate all these operations as part of one unified, general war plan. On the contrary, the method used during the war by the department was exactly the opposite, and the unified, general war plan actually came into existence only as the result of the coordination of all the various individual efforts, individual decisions, and individual operations which took place in the early months of the war. This coordination was not achieved until the Navy had been months in the war, and the general plan, built up piecemeal in this fashion, never was given any definite or official form, but remained only as a loose coordination of activities worked out in the manner described.

The planning section of the forces abroad: The officers who served in the Office of Naval Operations have also testified that after a planning section was established in the London headquarters the Navy Department came to depend more and more upon the work of this section to provide their own plans. Capt. Pratt in his testimony included a large number of the plans drawn up by this section, and told you how, throughout the latter part of the war, problems affecting the whole Navy, or even those relating to the Navy Department at home, to the Navy's building program, or to the organization of the department, were transmitted to this planning section in London in order to have a careful study made and a plan arrived at.

Admiral Benson, in his testimony, freely admitted that previous to the war he had not built up any planning section in Operations or taken any steps to provide for the preparation of definite plans. In explanation of this he called attention to a point emphasized also by Admiral McKean and Capt. Pratt, that it had been difficult to do this because of the lack of adequate personnel. He made it clear that, in his opinion, it had been difficult to get the department to realize the importance of ordering properly trained officers to Operations for this duty, as they would thus have been taken from other administrative duties or from the command of certain units of the Navy. It was apparent from his explanation that the official policy of the department previous to the war had been opposed to building up the Office of Naval Operations in such a way as to permit it to meet adequately war conditions.

How the plans division of Operations came to be organized: It is interesting in this connection to note that when the department finally decided on the necessity of having a planning section in the Office of Naval Operations, it should have looked to the planning section in London for guidance.

On the 17th of July, 1918, I received the following message from the Navy Department, dated July 17, 1918—not 1917, but 1918—more than a year and three months after the declaration of war:

JULY. 17, 1918.

Origin: Opnav., Washington.

Cs: July 17, 1918.

48, A. D. R.

Secret.

Simsadus.

When I agreed to principle of the establishment a joint-plan section in London, England, I consented at the same time to send you immediately two officers who were undertaking planning work in Navy Department, namely, Capt. Schofield and Capt. Knox. Since that time there has been no planning section in the department, and the need of it is so great that any further delay in reestablishing it on broad lines and as a permanent part of this organization can not be considered.

I feel that in carrying this work along it is most necessary to keep the ideas developed in Europe and those developed here working along the same lines. I therefore desire to order Capt. Yarnell from your office to Operations, for duty with other captains in this work, and to replace him I propose sending you Capt. McNamee, who has continued planning with administration work in this office.

I realize the importance of permanent personnel in your organization as well as in the Navy Department, but I feel that the work of a planning section here is equally as essential to the success of your operations as to the success of any other work which we may undertake.

This policy is in accordance with your own and my view regarding an interchanging of personnel.

BENSON.

Three days later I received a second dispatch dealing with the same matter:

Rec'd July 20, 1918.

Origin: Opnav., Washington.

Simsadus, London.

In view of the experience of your planning department in war zone, submit outline of organization they would recommend, together with a list of general subjects to be handled, keeping in mind both the present and future.

BENSON.

As a result of this request, the planning section in London drew up an outline of the organization which would be necessary in the Office of Naval Operations, and a plans division was afterwards established there and the organization put into effect very largely along the lines recommended by the planning section in London.

There can therefore be no doubt that the failure of the Navy Department to have adequate plans in 1917 was largely due to the lack of this essential part of the organization of the Office of Naval Operations, and that this was remedied only after the war had come to an end.

I invite particular attention to the fact that the initiative taken in establishing a planning section in the Office of Naval Operations in London was more than a year after the war began, and that that planning section was not eventually formed in the Office of Operations until after the war had ended.

Unpreparedness due partly to faulty organization and the lack of a responsible military adviser for the Secretary. Similarly, the testimony of the officers who served in the department conclusively demonstrates the fact that the matériel unpreparedness of the vessels of the Navy for war and the shortage of personnel can be, at least, partly attributed to these same defects in the organization of the department. Under the existing organization, there was no central naval authority charged with coordinating the various measures in the preparation of the shore establishments and vessels of the Navy for war, nor with the general supervision of the personnel of the Navy in order to insure having the properly trained officers and men necessary for the carrying out of any coordinated plan of operations. The 13 bureaus, boards, and divisions of the Navy Department are at present coordinated only by the personal direction of the Secretary of the Navy himself.

The Chief of Naval Operations can only advise him as to what the bureaus should do. There was no single professional adviser responsible for reviewing the activities of all the different divisions of the Navy and for making recommendations and giving responsible advice to the Secretary as to the carrying out of a systematic and carefully coordinated plan to prepare the Navy for war.

The Secretary of the Navy was naturally free to seek advice from any quarter he chose. No single officer was responsible for reviewing the whole situation and for giving advice based on a systematic estimate of the whole situation. The greater part of the recommendations made by individual officers were based only upon their own conception of the needs of their own particular departments, divisions, or bureaus. No civilian could ever possibly have a technical understanding of naval problems sufficient to warrant translating such advice in such a way as to coordinate the individual recommendations into a general, well-balanced program.

As the testimony shows in repeated cases, the Secretary of the Navy acted, not upon the advice of the General Board or of the Chief of Naval Operations, but upon the advice of an individual bureau chief. The result was inevitable. No matter how sound any particular piece of advice might be, its value to the Navy depended, not upon its soundness taken by itself, but upon its relation to the activities of the other bureaus and divisions of the department. In following the advice first of one naval officer then of another, first of a chief of bureau then of the General Board, and then of the Chief of Naval Operations, a great variety of different kinds of projects were undertaken; different measures were approved, which were more or less at cross purposes and which did not harmonize or, taken together, constitute any well-devised and intelligent plan for conducting the work of the department in preparing the Navy for war.

Efficiency of Atlantic Fleet in 1917 not a proof that Navy as a whole was prepared for war: So it happened that in 1917 the only important vessels in the Navy which were prepared for war were the active vessels of the Atlantic Fleet—that is, the dreadnaught divisions and some 20 destroyers. While it is perfectly true that this fleet, taken by itself and disregarding the fact that it lacked many wholly essential units—and consequently was only partially effective as a fighting unit—had very probably reached the highest state of

efficiency that any similarly constituted fleet of the United States had ever attained, still at this time the other vessels needed to make up a fighting fleet were in a lamentable condition. Many of them were in a very bad material state and practically all of them were without full crews. The peace-time efficiency of the so-called Atlantic Fleet in February, 1917, had therefore little to do with the question of preparedness for war. In fact, a declaration of war would in itself have broken down this efficiency. The well-balanced and trained organization and personnel of the fleet would have had to be broken up immediately on the outbreak of war and even before, in order to put into commission and operation the other vessels of the Navy which had not been made ready. This was exactly what happened in 1917. The trained personnel of the fleet had to be taken to arm merchant ships and to provide crews for the cruisers, destroyers, and other light craft. Their places in the fleet were taken by raw recruits, enrolled or enlisted after the outbreak of war. Consequently, however efficient the so-called fleet may have been in February, 1917, the Navy was not and could not be ready at once to enter the war effectively. It did not enter the war effectively until about six months passed, which Admiral McKean testified was necessary before the vessels of the Navy could be made materially ready for war and before the personnel enrolled after war began could be given sufficient training. Naturally, even then the crews, made up to a very great extent of raw recruits, could not possibly be in a high state of efficiency.

There is a general agreement, therefore, that the material unreadiness of our vessels and the lack of personnel to make the Navy efficient under war conditions, as distinguished from peace conditions, was chiefly due to a lack of adequate organization in the department and to the failure to take action in time to prevent the mistakes and confusion which necessarily occurred after war began.

The point about the whole business is that if you have not got sufficient personnel to man the ships that you have got to fight with when war breaks out, then it does not make any difference how efficient the ships are that you have got in commission, because their crews have got to be dismembered in order to furnish some trained men to put the others in commission. So immediately when war breaks out that efficiency disappears and can not be brought back for six months or so.

The department's interpretation of the policy of neutrality—Does neutrality prevent preparation for war? The department's witnesses were in general agreement that a second cause of the mistakes, where any were made, and of the failure to have the Navy ready for war in April, 1917, was the national policy of neutrality, as interpreted by the Navy Department. Admiral Badger, Capt. Pratt, and others have expounded the very novel and, in my opinion, entirely untenable theory that after the Great War began in 1914 any act of preparation for war would have been an overt act. It seems hard to reconcile this theory with any accepted interpretation of neutrality. It was admitted that the United States was the only judge as to its own naval needs; that its building program in 1916, although a radical departure in policy, could not have been considered an overt act by any nation; that the United States was the sole judge as to what ships it would build and as to how large a personnel it should maintain.

It was agreed that any acts considered necessary for the national defense could be undertaken by the Navy Department and carried through without any fear of having them considered overt acts by any belligerent.

In this explanation of the lack of preparedness the witnesses have succeeded only in exposing the department's official interpretation of neutrality. This apparently consisted, to state it briefly, in entirely disregarding the possibility of our being drawn into an unusual kind of naval warfare, requiring special type of vessels and weapons, and of going ahead with a general program which would have given us, in 1925, a navy as large as that of any in the world.

The mission of the Navy in its relation to national policies: Practically everyone of the witnesses commented at length on the policy of neutrality, and declared that the department thought that the country did not want to go into war; and that therefore the department did not consider it wise to take any steps which might make the Navy ready for war. This conception seems in complete contradiction to the true mission of the Navy. As Admiral Mayo so clearly pointed out in his testimony, the development and activities of the Navy depend entirely upon our national policies. The Navy is merely one of the instruments by which the Nation carries out these policies. Its particular mission is to be ready at all times to strike quickly and effectively in the event of the policy of the country resulting in war. These same witnesses have testified that, after the sinking of the *Lusitania* on May 7, 1915, there was little or no doubt in their own minds that we would ultimately be drawn into the war. They agreed that while our national policy was one of neutrality, our Government was also committed to the policy of protecting certain American interests. It must have been apparent that, if these interests were continuously violated, the only possible way to enforce them would be by war. Consequently, if the department had been actuated by what is believed to be the mission of the Navy it would, under the conditions which existed between 1915 and 1917, have based its activities upon the conception that the Navy should be so prepared as to be ready, in case the continued violation of American rights and interests should lead to war, to strike immediately and effectively in defense of those interests.

The department's witnesses have testified that, after 1915, and certainly after 1916, it should have been apparent to any intelligent and informed officer that if America entered the war her efforts would be chiefly confined to reinforcing the main allied naval force, in maintaining the command of the surface of the seas, and in engaging on as large and effective a scale as possible in combating the only naval menace to the allied cause; that is, the operations of the German submarines.

If there had been in the Navy Department a true appreciation of the mission for which the Navy exists, every effort would have been made during 1916, and perhaps during 1915, to man and prepare for war the existing light craft, and to hasten the construction of as many additional craft as possible of the type which, in the opinion of the professional observers, would be needed if war became necessary.

Departmental interpretation of neutrality based on wrong conception: The witnesses have agreed that for reasons which seemed mysterious to most of them the Navy was directed by a pacifistic interpre-

tation of the policy of neutrality, and that the policy of the department was largely responsible for the unpreparedness which existed in 1917.

Responsibility of the head of the department: The Secretary alone is at present responsible for the action of the department. All of the witnesses in referring to the conditions prevailing between 1915 and 1917, and in the early months of the war, have also agreed that, under the existing organization of the Navy Department, the only responsible authority is the head of that department.

Inasmuch as no naval officer was given responsibility under his direction for the coordination of the military activities of the Navy, no single naval officer can be held responsible for what happened. The responsibility must rest where the authority rests, that is, with the head of the department. All of the officers have testified that such is the case.

Policy and methods of the Secretary of the Navy: These same officers, in commenting upon the department's methods, have pointed out many instances in which the Secretary followed in many cases a variety of advice given him by bureau chiefs, or by other officials who were not concerned with any subjects other than those of their own division or bureau, and whose recommendations, in many cases, were not based upon the general needs of the Navy, but upon the conceptions of those individual officers as to what those needs might be or as to the wishes and needs of their own divisions.

The witnesses have testified, as did Admiral Benson, Admiral McKean, and Capt. Pratt that, in their conferences with the Secretary of the Navy, the term "war" was practically never used. In substance they substantiated the testimony of other witnesses, such as Capt. Laning and Admiral Plunkett, who called attention to the Secretary's unwillingness even to consider the idea of war having anything to do with the administration of the Navy. Those officers pointed out repeated cases in which action was held up for long periods by the failure of the Secretary of the Navy to take action himself or permit the Chief of Naval Operations to take action which seemed, in the opinion of that officer, to be necessary.

There has never been any disposition to question the good intentions of the Secretary of the Navy. It could hardly be doubted that he has the welfare of the service keenly at heart. But it also seems perfectly clear and perfectly well established, by the testimony of the department's witnesses, which has already been quoted that, in the very essential matter of preparing the Navy for war by drawing up war plans, by insuring material readiness, and by providing and training adequate personnel, the Secretary either failed or refused to consider or act upon the conception that the chief function of the Navy is to be prepared to carry out the national policies in time of war. Sufficient testimony has been introduced on this point to place it beyond the possibility of reasonable doubt. Our Navy was not ready in April, 1917, to enter immediately the campaign against the German submarine and to exert its full force in protecting the overseas communications of the allied forces or in transporting and supplying our own forces to be sent overseas. No adequate steps had been taken to meet the particular situation which we faced when war began, and it took many months after the actual declaration of war before the Navy was permitted to act effectively in this campaign.

I now take up Part V. This has been touched upon in a number of other places in my statement, largely due to the fact, as I explained yesterday, that the whole had to be gotten up very hurriedly. I will not read all the quotations, simply making mention of the fact that the statements already made in the beginning of this paper are substantiated by the testimony of witnesses taken from the record.

The CHAIRMAN. But you will include the quotations in the record? Admiral SIMS. Yes.

I will now take up the subject of the unanimous recognition of need for reorganization of the Navy Department.

UNANIMOUS RECOGNITION OF NEED FOR REORGANIZATION OF NAVY DEPARTMENT.

Agreement of department's witnesses on necessity of remedying defects:

In the preliminary part of this statement, I referred to the fact that an essential part of the testimony of all the departmental witnesses consisted of their recommendations for such a reorganization of the Navy Department as to prevent a repetition of the sad experiences of 1917, with which these officers were personally so familiar.

In this connection I said:

There was an almost unanimous agreement in their expressions as to the necessity for a reorganization of the department so as to make it a military organization, able successfully to prepare for and conduct war operations. The officers most closely connected with the department's organization during the war were those who have testified most strongly with regard to the need for this reorganization. Further comment seems superfluous.

I do not desire or intend to go into any details as to the suggestions made in this respect by the various department witnesses. The significant fact to bear in mind is that, whatever general expressions of indorsement they may have given to the department's conduct of the war; however they may have attempted, by statements of personal opinion and by generalizations, to "defend" the Navy—which has never been attacked—or the conduct of the war by the Navy Department, with which in most cases, as they themselves have testified, they were completely ignorant, they yet were all agreed that a reorganization of the department is necessary in the interests of military efficiency and national defense. Furthermore, their recommendations were in most cases very similar, and were such as would be considered necessary only in the event that the criticisms which I have made in my testimony were in reality believed by them, consciously or subconsciously, to be true and well founded.

In other words, the unconscious assumption upon which their recommendations have been based has been necessarily the fact that the Navy Department's organization in 1917 was not adequate to the conduct of war; that the Navy was not as well prepared as it should have been to take part in the war; and that its conduct of the war was faulty and open to well-merited criticism. It would be impossible otherwise to understand or explain their insistence on the necessity for the kind of organization which they have recommended.

Recommendations of Admiral Rodman as to reorganization of department:

In order that the trend of the recommendations of the department's witnesses for reorganization of the department may be more clearly understood, I will refer briefly to their statements before this committee.

For example, Admiral Rodman said (p. 2101):

I believe that it would be for the best interests of the Navy, that we might avoid mistakes in future, to entrust the Chief of Naval Operations with the responsibility of preparing plans for any future work and to keep the Navy in a state of preparedness; and, more important still, to give him the authority to carry them into execution when the war is declared, following the policy that is laid down by the Federal Government.

In answer to questions, Admiral Rodman pointed out that in the bill containing the provision for the creation of the Office of Naval Operations, the word "responsibility," as applied to the preparation of the Navy for war, was struck out of the bill at the instance of the Secretary of the Navy, although in Rodman's opinion the Chief of Naval Operations "should have the responsibility and the authority."

In cross-examination, Admiral Rodman again reiterated this opinion as follows:

The CHAIRMAN. Do you consider the organization of the Navy Department, as now existing, satisfactory?

Admiral RODMAN. No, sir (p. 2140).

The CHAIRMAN. What changes would you suggest other than those you spoke of?

Admiral RODMAN. None others, sir. I am not very familiar with the intimate organization of the Navy Department (p. 2141).

Admiral Rodman also stated the further opinion that:

With the recommendations I made in regard to the Chief of Operations being given more responsibility and authority, the continuation of the General Board as it exists is most important. Beyond that I have no recommendations to make.

In explanation of his opinions Admiral Rodman said that no civilian Secretary, without expert advice and assistance, could be expected to prepare the Navy for battle. He would have to depend almost altogether on expert advice, and to follow that advice in order to get good results. He thought that there should be only one responsible military advisor, the Chief of Naval Operations, who would be authorized to exercise supervision over the bureaus and offices of the department as required to secure coordinated action.

So far as carrying out war plans is concerned, and in the matter of preparedness, and in the execution of the plans, I think it should be entrusted to the Chief of Naval Operations (p. 2142).

Admiral Rodman also stated emphatically his belief in centralized control over policies and plans, and a decentralization of responsibility and authority in their execution. He thought the Chief of Naval Operations should be given this responsibility and authority, especially as under existing circumstances "he has not got it" (p. 2143).

Furthermore, Admiral Rodman stated that he was prepared to agree with "anything that Admiral Mayo would recommend," and would give a general indorsement to any of Admiral Mayo's opinions. This is of especial interest, in view of Admiral Mayo's recommendations, which will be considered in a moment.

Admiral Rodman also (p. 2144) stated that he believed that a planning division in Operations was absolutely necessary, and that the officers assigned to that duty should perform that duty alone during their service in Operations. He admitted that this had not been done previous to the war.

Admiral Wilson's recommendations:

Admiral Wilson was just as emphatically in favor of such a reorganization as was Admiral Rodman.

For example, to quote from his testimony (p. 2224):

I said in my statement that I had read the summary of recommendations of Admiral Mayo on the subject of the policy of reorganization, and that I was heartily in accord with that. * * * I could not go any further. * * * I would like to wait for that plan and I would probably be just as much in accord with him in that as I am already, because Admiral Mayo is a man in whose judgment I have the greatest confidence.

Admiral Wilson also testified that he did not consider the present organization of the Navy Department satisfactory.

I think that the Secretary of the Navy should have a naval advisor, now called the Chief of Naval Operations; that he should be the advisor to the Secretary on all matters concerning the preparation of the Navy for war, and that he should be held responsible for the execution of the plans.

Admiral Wilson did not mean that he should take the place of the Secretary. He should always be a civilian, in accordance with our governmental traditions, but Admiral Wilson did believe that the civilian Secretary should select carefully his naval advisor and should then (p. 2225) "place responsibility upon him and naturally give him the authority that goes with responsibility." The Chief of Naval Operations should not mix in details with bureau affairs, but should coordinate his efforts in times of peace, as was actually done in the latter part of the Great War.

The law should be such that in peace times they will have the same cooperation in order that they can be prepared for war.

In Admiral Wilson's opinion the Chief of Naval Operations should also have:

The responsibility of drawing plans and for getting the Navy ready for war and the responsibility for the execution of the plans; and the man who has the responsibility for such a thing should have the authority that goes with it (p. 2226).

The Chief of Naval Operations should be given authority and "charged with responsibility, and the law should be made such that the work that was done during the war by cooperation will be made the practice during peace times."

Furthermore, in Admiral Wilson's opinion:

A civilian Secretary needs the advice and assistance of expert naval officers. * * * The Secretary does not need naval knowledge to be an administrator. That is what you want, an administrator there as Secretary of the Navy; a man who handles policies, is on good terms with Congress, and such things as that; I do not think it was ever expected * * * that the Secretary * * * should go down and do the details and say how war should be carried on.

All plans for military operations should be drawn up by military experts, and the general direction of such operations should be in their hands, according to Admiral Wilson's opinion.

I think everyone recognizes that, sir, even the Secretary of the Navy. The trouble with this business is that it is not the system, it is the individual, and

if he gets in there and tries to make his job too big, at the expense of everybody else and not to the best interests of the service * * * they ought to get somebody else who can keep within his limits and keep happiness there and not discord. * * * I believe in a centralized control of getting ready for war and carrying on war.

Admiral Wilson summarized his opinion as to the Secretary's position when he said that after the war plans were decided upon the Secretary "ought to occupy himself with big things; not meddling with navy yards and trivial things of that sort."

ADMIRAL FLETCHER'S RECOMMENDATIONS.

Admiral Fletcher's ideas as to the reorganization of the Navy were very similar to those expressed by Admirals Wilson and Rodman.

For example, Fletcher said:

I am prejudiced in favor of the Meyer organization as tentatively put into effect by Secretary Meyer in regard to heads of divisions.

Admiral Fletcher, in another place, said that he still was of the opinion which he had expressed before the House Naval Committee in 1916, in discussing the organization of the Navy Department; that he thought that the existing organization was unsatisfactory.

It is not the organization that I would have there or all I would like to have were I Secretary of the Navy (p. 2291).

In Admiral Fletcher's opinion, the Chief of Naval Operations should have authority to sign all orders with regard to the operations of the fleet, should be made responsible for the preparation of war plans and for the conduct and operations of the fleet in time of war. In 1916 Admiral Fletcher recommended that this be done, and especially that the Chief of Naval Operations be given authority, "to issue and sign orders concerning the operations of the fleet." So far as he knew, the Secretary of the Navy had never approved this. The Chief of Naval Operations "should have full authority to do that, subject to the approval of the Secretary of the Navy."

The Chief of Naval Operations should exercise his authority under the general direction of the Secretary of the Navy. The Secretary should be authorized to veto or disapprove any orders, but should not be the one required to sign them (p. 2290).

ADMIRAL NIBLACK'S RECOMMENDATIONS.

Admiral Niblack was quite convinced that the investigation by this committee will have the beneficial results, for the very reason that it may lead to a reorganization of the department.

In this connection, for example, he said (p. 2437):

It is believed that a possible valuable result of the investigation now being conducted by this committee may be the development of means for accurately fixing responsibility for preparation for war. * * * This can be accomplished by the enactment of legislation which will make the Chief of Naval Operations responsible for making to the Secretary such recommendations * * * as will maintain the Navy in an adequate condition of preparedness to meet any probable enemy; and which will also make the Chief of Naval Operations responsible for the execution, during peace and war, of all plans that have been approved by the Secretary of the Navy. * * * All estimates for naval appropriations should be based on approved plans and should, when presented to Congress, be accompanied by written comment and recommendations by both the Chief of Naval Operations and the Secretary.

In another place, in referring to the efforts which the General Board had made previous to the war to get things done, Admiral Niblack said that the General Board often recommended things which were for the good of the Navy, but which might not be in conformity with the policy of the head of the Navy.

Specifically, what I mean is that the administration may have a program based upon expediency or upon the financial outlook or upon the next election, or whatever you choose. * * * There ought to be on record what the General Board recommends in addition to what there is in writing from the Secretary of the Navy concerning the administration's plans (p. 2456.)

With regard to the bureau system, Admiral Niblack testified that he thought that it had achieved splendid results and had stood the test of war, but he did believe that the operations of the bureaus should be coordinated and should be under the general direction of the Chief of Naval Operations.

He said:

Personally, I never wanted to see it (the bureau system) modified except to be materially controlled in the recommendations they made by the central responsible person, the Chief of Naval Operations (p. 2457.)

In order to insure Congress receiving a full statement of various naval problems and recommendations made to meet them, Admiral Niblack said that, in his opinion, "The General Board and the Chief of Naval Operations should be entitled to present their views to Congress * * * as well as the Secretary."

RECOMMENDATIONS OF CAPT. PRATT.

The officers who were most closely associated with the administration of the Office of Operations during the war presented the most drastic recommendations as to the necessity for increasing the functions of that office, in order to give it a real military control over the military side of the department's activities. Capt. Pratt, Admiral McKean, and Admiral Benson were exceedingly emphatic on this point.

Capt. Pratt, for example, said, with regard to the condition in 1917 (p. 2832):

Nor was the organization or administration of the department at home such that it lent itself to the most efficient handling of a great war * * * at the beginning. * * * These conditions were true when we entered the war and they lasted until the defects could be remedied—but by April, 1918, * * * the organization of the Office of Operations had been modified and the methods of administration changed.

In another place, Capt. Pratt said that when we entered the war (p. 2871):

The reorganization and expansion of the Office of Operations and of the bureaus had to be undertaken. The coordination of the bureaus with this office had to be developed. The methods of administration had to be divested of their prewar conservatism; the red tape abolished, and more authority given to subordinates in matters of detail. Habits of quick and accurate thinking and quick decision under stress of war had to be formed.

With regard to the specific question of the organization of the department, Capt. Pratt said (p. 3831):

No organization is sound unless you give the power where it rightly belongs and fix the responsibility for its proper administration. You have by law

appointed a head but have not definitely placed responsibility. As the head of an organization, there is the perfectly natural inclination to perform such acts as he in his judgment deems wise, but upon these acts depends the entire present and future of our naval establishment, its development, maintenance, and operations. To effect this efficiently requires the most intimate knowledge of the Navy, and particularly in coordinating its many activities. * * * To administer the duties of the chief executive of this department, there is called a civilian * * * who, in this capacity, is best able to coordinate the Navy's activities with Congress, and who in his person is the strongest connecting link between us and the people. He comes to the office as an individual, a splendid man, able, efficient, highly trained in some subject, but not technically trained in the activities of the Navy nor a student of the art of war. This system functions after a fashion in peace but does not function when preparation for war becomes necessary, nor does it function in war. It is necessary now that at the outbreak of hostilities the military head should assume the direction of and responsibility for the conduct of military operations for whose preparation he had had by law no direct control nor authority to coordinate in peace. Such is the system we work under to-day, and did at the outbreak of the war.

In referring to what happened during the war, Capt. Pratt said (p. 3832) :

Thanks to the voluntary and hearty cooperation of every distinct departmental organization, including the Secretary, the Navy was able to pull itself together and to work exceedingly well in war. If any lack of preparation existed within the naval service prior to our entry into the war; if any lack of harmony existed then or exists now within our Navy, it can be laid more justly to the system of organization the department labors under rather than upon the shoulders of any individual.

In Capt. Pratt's opinion, the department would have fallen to pieces during the war without the Office of Operations to coordinate activities. This coordination was accomplished only by the voluntary action of the bureaus in practically placing themselves under the control of the Office of Operations, but in Capt. Pratt's opinion (pp. 3933-3934) the Chief of Naval Operations should have legal authority and responsibility for doing this at all times.

If, then, he does what he ought not to do, the Secretary can replace him by another man, and should replace him. If, on the other hand, he finds that he is not being supported by the Secretary, he can bring his opinions directly before the proper authorities.

With regard to the General Board, Capt. Pratt said (p. 3934) :

I further believe that the General Board should be created by law and should not be a board appointed by the will of any person * * *. It would have a great check upon the Chief of Naval Operations in case he overstepped his authority.

In referring specifically to the interior organization of the office of Operations, Capt. Pratt said (p. 3935) :

Without a division of material we would have fared badly. Without the planning section, once we got into the war, we would have had to depend very largely on Admiral Sims's planning section, and as a matter of fact that is what we did do except for matters that occurred in the United States.

In referring to the handicap imposed upon the officers in the department by the lack of any effective organization, Capt. Pratt said :

I should have liked nothing better than to have had a thoroughly organized plan for the department. It would have made the work very much easier.

The organization of the department as it existed prior to the war, and as it exists now, Capt. Pratt considered was imperfect and should be changed.

I think the organization is not fitted to conduct war efficiently (p. 3939).

With reference to the report of the Mahan-Moody Board, Capt. Pratt said that he was in general agreement with its principles, but that the work of the various aids for material, personnel, etc., should be coordinated directly not under the Secretary but under the Chief of Naval Operations. He thought that it had not been wise for the present Secretary to destroy or discredit the Mahan-Moody report and to return to the old bureau system, with only an aid for Operations, with no authority to coordinate the bureaus and divisions of the department, leaving this coordination to be handled only by the personal direction of the Secretary of the Navy.

He said (p. 3941):

It is a return to an older order of things, which was not as wise.

Capt. Pratt, in commenting upon the operations of the department in the war, made it clearly apparent that many difficulties were encountered, and that, to a large extent, the responsibility for these rested upon the Secretary.

Thus, for example, he said (p. 3399):

As the system of organization stands, we have not any actual military head who is responsible. The responsibility in a degree rests upon the Secretary, because he is the head. * * * The Secretary, no matter how wise a man he may be in his own affairs, must accept the advice of his naval counselors; but if somebody is not charged with the responsibility for the advice he gives and the head does not know the details, the result is an indefinite state of affairs, which, to my mind is responsible largely for any unsatisfactory condition which we might say existed.

In illustration of this point, Capt. Pratt referred to the fact that, as it now stands, the Secretary can always justify any action that he takes, however unwise it may be in the opinion of the majority of the service, or however mistaken events may show it to have been, by stating that he was following the advice of a naval officer, of one of his own advisers.

In this connection Capt. Pratt referred to the case in 1914, when the Secretary of the Navy disapproved a recommendation of the General Board for an increase of 19,600 men in the personnel and directed that this recommendation should be removed from the report of the General Board; and, at a later date, after the General Board's report had been considered, obtained from his then Chief of the Bureau of Navigation, Admiral Blue, another statement to the effect that the Navy had more men than it needed at the time. Admiral Blue's statement, of course, was based not upon any consideration of future needs, but upon providing minimum peace complements only for such ships as were at that time actually in commission. In discussing this incident, Capt. Pratt said that he did not know whether the Secretary was to blame or not for accepting Admiral Blue's advice rather than that of the General Board and of the other officers in the department, and then went on to say (p. 3400):

That is just where we kick. He accepted the advice of Admiral Blue, and almost every naval man thought that Blue was dead wrong. * * * I hold Blue very responsible for the advice he gave; * * * but the system is wrong, where you can cooperate first with one naval officer, then with another naval officer and another chief of bureau and get just as many ideas as you talk to men. That ought to be coordinated under the head who is charged with policy and plans, so that you do not get this diffusion of ideas but get one concentrated effort.

METHODS USED DURING WAR TO OVERCOME DEFECTS IN ORGANIZATION.

Capt. Pratt also confirmed the testimony given by other officers before this committee, such as Capt. Laning and Capt. Palmer, to the effect that during the war many of the successes which attended the operations of the Navy were achieved only because, practically speaking, the officers in the department went ahead and on their own initiative carried things through, often without the approval or the knowledge of the Secretary of the Navy.

In this connection, Capt. Pratt said (p. 3411) :

When we started in this war, matters of detail did have to be arranged through the Secretary; but later on we used to handle operations a little more directly. The Secretary could not attend to all such matters of detail—it would be impossible. So I think in many cases we acted directly, after the policy was once established. * * * After the Secretary had approved a general policy Operations carried it out without further reference to him or approval of details.

In other words, during the war, by the methods which were developed, the Office of Naval Operations succeeded in temporarily gaining for itself those prerogatives which every officer who has testified considers necessary, and which alone, in their opinion, made possible the successful prosecution of the war in its later stages, and also made possible those achievements in which the Secretary of the Navy has recently expressed such pride. The Secretary, however, still continues to oppose the very organization which, created informally, and probably without his knowledge at the time, was alone responsible for the happy results which the department was able to obtain.

The officers who served in Operations have told you how, after the war had been proceeding for a number of months, they succeeded in establishing a practical method of working which, in general, was in accord with the principles of their present recommendations for the reorganization of the department.

Admiral McKean's recommendations: . .

Admiral McKean in his testimony presented a complete outline for the reorganization of the department, which was very similar to that proposed in the testimony of the officers thus far quoted.

The following quotations from his testimony indicated the basis of his suggestions:

Page 4436:

The CHAIRMAN. Could not the Navy Department have been better organized between 1915 and 1917 had we anticipated and prepared for war?

Admiral McKEAN. Yes. I always had very distinct views on the defects of the organization—war brought some of the modifications that in peace would require laws * * * a gentleman's agreement in peace might not do. In war it is the essential duty of all the country to control all the little jealousies and friction. They just dropped out and we got busy. Never mind bureau system or anything else. * * * I think the organization ought to be changed.

In another place, Admiral McKean said (p. 4331) :

There have been many criticisms of our system. I agree with Capt. Pratt that whatever faults and whatever shortcomings there might be or might have been or will be in the future, it is more the fault of the system than of any individual or individuals. * * * It is my opinion that the responsibility of the Chief of Naval Operations should be definitely stated in the law and that the authority conferred upon him should be coextensive with these responsibilities. It is further my opinion that there should be only one naval adviser on military matters, this to prevent confusion and friction, and to permit the

Congress and the people to fix the responsibility for the preparation of the fleet for war and its operation in war.

From nearly three years' experience in the office of the Chief of Naval Operations, and having held both of the leading assistant positions, and having also acted as chief for seven months, I am convinced that the law creating the office should be revised so as to make the Chief of Operations fully responsible, under the direction of the Secretary and the President, for the fleet's development, maintenance, training and operation, and that he should be given the necessary authority and the necessary assistance to enable him properly to meet these responsibilities (p. 4332).

Admiral McKean submitted drafts of legislation which he considered would meet the situation. These provided for carrying into effect substantially the recommendations noted above: That the Chief of Naval Operations should be made the sole military adviser of the Secretary; that the responsibility and the authority of preparing plans for war, of directing the execution of those plans, and of coordinating the activities of the bureaus in doing this should rest upon the Chief of Operations; and that in time of war, and in time of peace, he should direct the operations of the fleet; of course, at all times under the direction of the Secretary of the Navy, and in accordance with the policies laid down by the Secretary of the Navy. He also provided for the establishment of the General Board as a body of the more experienced officers of the Navy charged with preparing general naval policies. The policies having been determined in this way, and having been approved by the Chief of Naval Operations and the Secretary, the work of preparing detailed plans to carry them out should be turned over to the planning section of the Office of Operations, under the direction of the Chief of Naval Operations.

Similarly, the execution of the plans would be directed by the Chief of Naval Operations, with the assistant of aids for material, personnel, inspections, etc., who would be officers of high rank, and who would assist the Chief of Naval Operations in coordinating the activities of the various bureaus and divisions of the department. These bureaus would be placed directly under the military authority of the Chief of Naval Operations, of course, under the general direction of the Secretary.

ADMIRAL BENSON'S RECOMMENDATIONS.

Admiral Benson if anything was more emphatic in urging the necessity of such a reorganization than were even his chief assistants during the war. In discussing the causes for whatever mistakes occurred during the war, Admiral Benson said, page 4486:

As you know, so long as I have been in the service, 48 years now, we have studied the question of preparing the Navy for war, and from time to time the things that were necessary for this preparation have been submitted, and they never have been fully complied with. The reason in my opinion is this, that the technical officers in the service who are educated by the Government for a special purpose, and for no other particular purpose, have never been permitted to exercise fully the responsibilities, as I see them, that should be placed upon them. They study these questions. They prepare what they believe is necessary for proper preparation of the Nation's Navy for war, and these recommendations have never been fully carried out.

In dealing with many of the specific acts of the department in the early part of the war and before the war, Admiral Benson pointed

out that he himself was not in many cases responsible, that his advice was disregarded by the Secretary. He stated that under the law, the Chief of Naval Operations did not have the responsibility (p. 4492) "except for certain things; the preparation of plans and things of that kind, but he unquestionably should be responsible for it."

Admiral Benson in testifying displayed a very generous inclination to assume responsibility for as many things as he could, for he said, page 4493:

Putting it on the ground of a strict interpretation of the law, of course the Secretary is ultimately responsible for anything, but I do not want to be put into the position of trying to shake any of my responsibility as Chief of Operations and putting it onto the Secretary of the Navy.

In dealing with the organization of the Office of Operations as it existed at the time of the war, Admiral Benson said that it was short of personnel and not adequately organized, page 4541:

The Office of Operations, so far as the organization was concerned—I mean by that the different divisions, etc.—was more or less in skeleton form. We were short of necessary personnel and we had to build up.

In expressing his opinion as to the reorganization of the department, Admiral Benson said, pages 4541, 4542, 4543:

My opinion is that the Office of the Chief of Naval Operations should have the responsibility for the preparation of the Navy as a whole. He should be responsible for that, but he should have the authority that enables him to discharge that, all, of course, under a civilian Secretary of the Navy. He should have the authority to coordinate all the technical activities of the Navy Department, and he should be held responsible for their efficient coordination and cooperation. He should be free to give his views to Congress, and there should be some arrangement by which he should be kept fully informed as to the policies of the Government. I mean the political policies of the Government; what international problems were pending; what the international policy of the country is at the time; any changes that might involve distribution of forces; but he should be particularly held responsible for the proper and efficient coordination of all the naval activities. He should have the authority, and it should be so understood. For instance, he should be able to give directions to all the bureau chiefs. In addition to material and operations, he should particularly have directly under him the question of personnel. I think he should have a voice in the selection, and be almost responsible for, the selection of all officers for prominent positions, both in the Navy Department and in the fleet. * * * Of course I do not want to sidetrack the Secretary. He, as the head of the department, of course, is responsible to the country for the department, but it should be so well established that he has this right, that the Secretary should not go counter to it, unless there were most excellent reasons.

You might possibly get a Chief of Naval Operations that was not efficient, or he might have prejudices, and he might have all kinds of things, and there should be some check on him, and the Secretary should have that authority, because in the last analysis the Secretary is responsible; but I do think that in order to have the organization what it ought to be that change ought to be made. I think I can illustrate my point. If you will remember, the administration came into power on the 4th of March, 1917; that we went to war on the 6th of April. If you had had an entirely new Secretary come in on the 4th of March, with the old organization before the Office of Operations was established, you would have had practically nothing to coordinate the technical activities of the department, except a new Secretary of the Navy.

Admiral Benson was firmly of the opinion that the only thing that saved the day in the Great War, as far as the Navy was concerned, was the fact that the Office of Operations did exist, and that it did succeed in establishing, by the voluntary cooperation of the bureaus, the sort of organization which he recommended should be made permanent, but only after long delay.

The following quotation is pertinent, page 4549 :

CHAIRMAN. Would you say that the Office of Operations, as it was organized at the commencement of the war in April, 1917, was as adequately prepared for carrying on the war as it should have been or could have been?

Admiral BENSON. No; it was not, but I would like to add, if I may, that it did carry it on, and very successfully.

CHAIRMAN. You mean that the war was won?

Admiral BENSON. Yes; the war was won, and I do not think any serious mistakes were made.

Senator BALL. It would have been carried on just as successfully and at much less cost probably if we had been adequately prepared?

Admiral BENSON. At a very much less cost; yes, Senator, very much.

In another place, Admiral Benson said (p. 4550) :

I think that with what we had we were making the very best of it; but, as I have said, I think the office should have been differently organized and at least had more authority.

Admiral Benson gave as the reason for the lack of plans the shortage of personnel in Operations. He admitted that, however excellent may have been the services and recommendations of Capt. Pratt and other individual officers, these did not constitute a real planning section (p. 4564) :

But I say that under the situation, with the shortage of officers and the situation we were facing, it was the best we could do and that we got out sufficient plans or memoranda, or whatever you wish to call it, to meet the situation. * * * In a well-completed organization under different conditions, I would insist on a planning section; and as soon as it was possible to organize this planning section we did organize it, and it did function.

RELATIONS BETWEEN THE OFFICE OF OPERATIONS AND THE SECRETARY OF THE NAVY.

As illustrating how difficult it was for the Office of Operations to work under the conditions which prevailed, and with the organization that existed in 1917, Admiral Benson made some very interesting comments.

When asked by the chairman as to what the attitude of the Secretary was with regard to the situation in 1917, Admiral Benson said (p. 4633) :

I do not know what the attitude of the Secretary was.

The CHAIRMAN. You do not?

Admiral BENSON. I do not.

The CHAIRMAN. I take it you were in conference with him on such matters?

Admiral BENSON. That may all be, sir, but I can not state to you what the Secretary's attitude was.

In explaining how the Office of Operations worked under the Secretary, Admiral Benson still further confirmed the point brought out by the testimony of other witnesses, to the effect that Operations could only be successfully carried on by eliminating many details from consideration by the Secretary.

For example, he said (p. 4779), in discussing the carrying out of plans:

As I say, I was a member of the General Board, and there were a great many of those things, as well as many others, that I carried out without reference to the Secretary, and then informed him or tried to keep him informed. I felt that the Secretary had confidence in me, and I told him that I would go ahead and try to keep him informed; but I frequently did things without reference to the Secretary, and then informed him afterwards of what I had done.

Thus, in substance, Admiral Benson's account of the difficulties under which the Office of Operations had to struggle at the beginning of the war, because of the lack of a proper organization in the department, confirms the testimony of the previous witnesses who have been quoted. It is equally significant that Admiral Benson's recommendations for the department reorganization are exactly in line with the suggestions of these other officers. All are avowedly based on a desire to prevent, in future, any repetition of the conditions which existed in the early months of 1917, after we entered the war, and in the years immediately preceding our entrance into the war. These recommendations for the reorganization of the department are in substance an admission of the truth of the criticisms to which I have invited the attention of this committee in my testimony.

ADMIRAL MAYO'S ANALYSIS OF CAUSES OF DEPARTMENTAL ERRORS AND DELAYS.

It seems interesting also in this connection to refer to the testimony of Admiral Mayo, who was the commander in chief of the Atlantic Fleet during the war. In appearing before this committee he confirmed in substance the main criticisms to which I have invited attention, and his recommendations as to the prevention of similar errors in the future involved exactly the same type of reorganization of the department that every witness thus far quoted has indicated.

Thus, Admiral Mayo said, page 1540:

In my opinion there are three faults which were the principal causes of our failure to support the Allies more promptly and with great efficiency.

It is my opinion that the material unpreparedness of the vessels in reserve and out of commission and the shortage of personnel was due primarily to the national policy of strict neutrality and its resultant effect of the failure to prepare against war. It should be recalled that Holland and Switzerland remained neutral during the war. They were ready to defend their neutralities. War is the ultimate resource of foreign policy, by which the Nation seeks to impose its will against the enemy. The armed forces of the Nation are the instruments by which the national policies are supported and enforced. * * *

Page 1543:

The next more serious detriment to efficient preparation is the organization of the Navy Department. The laws and regulations under which the Navy was operating during the war, and is operating to-day, are unsatisfactory. Under the present regulation:

(a) The General Board is charged with devising measures and plans for the effective preparation and maintenance of the fleet for war.

(b) The Chief of Naval Operations is responsible for the preparation and readiness of plans for the use of the fleet in war.

(c) The General Board is charged with the preparation of plan campaigns.

(d) The Chief of Naval Operations is responsible for the operations of the fleet.

The Chief of Naval Operations has no authority to coordinate the work of the bureaus, whose business it is to supply and maintain the matériel and personnel. The General Board has no effective function.

Under such regulations coordination of the various offices, boards, and bureaus can be obtained only by voluntary coordination or through the civilian Secretary.

So long as the present organization exists, the maximum efficiency whether in preparation for war, in the conduct of war, or in economical development of the Navy in peace can not be obtained.

In the present organization responsibility for the readiness of the Navy for war can not be placed anywhere but with the Secretary of the Navy, who, under the present organization must coordinate 13 offices, boards, and bureaus.

Every dollar spent on our Navy should be spent with a view to the accomplishment of a definite plan of preparation for war. The Navy is built for war, and unless the Chief of Naval Operations, under the Secretary of the Navy, is held responsible for the preparation, readiness, completeness, and effectiveness of plans for national defense, including plans for development of the Navy, plans for its maintenance, and plans for its use, and is given power through the Secretary of the Navy to exercise supervision, through the bureaus, boards, and offices, over all naval activities, the maximum efficiency can not be obtained.

In my opinion the faulty organization of the Navy Department, and the absence of definite foreign policy, except that of strict neutrality, were the primary causes of failure to prepare the entire Navy for war.

After definite policies and plans were definitely settled on, after money was appropriated, and after the bureaus voluntarily coordinated with the Chief of Naval Operations, the work was pushed with energy and vigor, the accomplishments were excellent. But our delay would, no doubt, delay our assistance to the Allies at a critical time, and if such conditions regarding our preparation for war exist in the future they may result in disaster.

My statement also includes criticism of another nature, namely, that I was not kept informed of policies, nor properly consulted with regard to operations in the western Atlantic.—In my opinion authority was so centralized in the department that it resulted in the lack of the principle of due subdivision of labor and due centralization of responsibility. Centralized control over policy and general plans is sound, but centralized control over details of execution most often result in loss of efficiency.

ADMIRAL MAYO'S RECOMMENDATIONS FOR DEPARTMENTAL REORGANIZATION.

Admiral Mayo submitted, in accordance with the request of this committee, a statement of his recommendations for the reorganization of the Navy Department, which has dealt with the various problems in considerable detail. It is not necessary to review them at length here. It is sufficient to call attention to the fact that they are in fundamental accord with the recommendations which have been made by all the other witnesses quoted. In this statement he has called attention to the defects in the present organization and has outlined methods by which they may be remedied.

Fundamentally, his recommendations are:

(1) The Chief of Naval Operations should be responsible to the Secretary of the Navy for the preparation and readiness of the Navy; and for the completeness and effectiveness of plans for national defense, including plans for the development of the Navy, plans for its maintenance, plans for its use, and plans and recommendations for cooperation with other Government departments.

(2) The Chief of Naval Operations should have authority to assign for preparation such portion of these plans as he may deem appropriate to any part of the Navy organization.

(3) After the approval of policies and general plans by the Secretary of the Navy, the Chief of Naval Operations should be responsible for their execution. He should act as the executive of the Secretary in carrying them into effect and should be authorized to exercise, through the bureaus and offices of the Navy Department, the commanders of naval forces, districts, or bases, such supervision over all activities of the Navy afloat and ashore as may be required to secure coordinated and efficient execution.

(4) The General Board of the Navy should be relieved of all administrative duty and should be assigned such duties as experience might prove wise.

(5) The above provisions are not intended to limit in any way the authority of the Secretary of the Navy. The idea governing these recommendations is only to provide an experienced technical subordinate to the Secretary, who can be held responsible for the making of plans and, on their approval by the Secretary, for their efficient execution. The relation between the Secretary of the Navy and the Chief of Operations should be the same as that between the president of an industrial corporation and its general manager. The Secretary of the Navy should be responsible to the Government for the policies and general plans which he approves, but after approval should hold the Chief of Naval Operations responsible for their execution. Control of policies and plans is effective control over all activities only when responsibility for their execution can be definitely fixed. Operations and administration are so intimately related that the control over both types of activities must be centralized under one responsible head.

(6) The exercise of such supervision would in no way restrict the large activities of the bureaus. Interference with the administrative work of the bureau would be contrary to the principle of subdivision of labor and responsibility. The exercise of such supervision as is indicated, would have as its result the coordination of the work of all bureaus, other shore activities, and operating forces in the accomplishment of definite plans.

PERSONAL RECOMMENDATIONS FOR REMEDYING CAUSES OF DEPARTMENTAL
ERRORS, DELAYS, AND OMISSIONS.

In accordance with the request of the chairman of this committee, I have prepared certain recommendations of my own, which are in substantial agreement with those of the department's witnesses. With the permission of the committee, I would like to include at this point a brief summary of these recommendations. In so far as the testimony has shown, it is clear that the unfortunate conditions which existed in 1917, the lack of preparedness for war, the failure to have adequate plans prepared, or to carry on a vigorous prosecution of the war in the early months can be attributed in part to the faulty organization of the department. These faults can be remedied by some such reorganization as that of the type already suggested. Of course, the details of any reorganization would have to be worked out carefully after exhaustive study of the individual problems involved, but the general principles, I think, can be laid down, in view of the experience gained in the recent war and after a review of the testimony presented before this committee.

Comments concerning legislation relative to organization of Navy Department.

Major objective: In keeping with the "check and balance" doctrine of our form of government to insure to the Congress the maximum efficiency of the Navy; to insure the maximum return to the country for Government funds allotted by Congress for the Navy.

Important considerations not at present adequately provided for: Congress provides the means of creating a body of expert professional personnel to handle the Navy.

Purely from a standpoint of business efficiency and of insuring return on money invested, it is evident that Congress should require the maximum utilization of the expert knowledge which it creates.

Experience has shown the necessity of specifically requiring by legislation the method by which the above expert knowledge should be utilized.

The above-mentioned expert knowledge refers solely to subjects commonly termed "military" or to "the profession of arms." In the Navy military questions concern those of the following types:

(a) Determining military characteristics of men-of-war and their equipment.

(b) Methods of inspection and supply of the above.

(c) Providing and training of personnel of the Navy.

(d) Disposition and employment of ships and men.

(e) Preparation and execution of military plans.

(f) Internal organization and management of the Navy, and of its ships and supporting shore establishments.

(g) Discipline of the Navy, etc.

All of the above and kindred questions must be based upon national policy, but once that policy is determined and laid down, the Congress should see to it that it is carried out in accordance with the responsible advice of trained military (naval) experts.

Acceptance of such military measures, of course, rests with the President or his authorized representative, but Congress is entitled to know upon what grounds such decisions are based.

The present laws go into too much detail as regards the various essential but subordinate parts of the Navy Department organization, without providing for the coordination of those parts and without insuring accomplishment of some of the principal considerations above set forth.

Suggestions as to the organization of the Navy Department. From the standpoint of the Congress, the following should be laid down by legislation:

1. A Cabinet officer (civilian appointed by and with the advice and consent of the Senate) should act as the direct representative of the President in charge of the Naval Establishment, charged with insuring that the Navy is prepared and conducted in accordance with national policy.

2. This Cabinet officer should have but two principal subordinates:

(a) A civilian assistant secretary to whom should be delegated all civil questions connected with the Navy, such as detailed dealings with Congress, labor, contracts, appropriations, etc.

(b) Military assistant to whom should be delegated all questions of a strictly military nature.

3. In order to relieve the above assistants of undue burden of details, the law should recognize certain other subordinates, such as the present chiefs of bureaus, who should be empowered to expend and be accountable for expenditures of funds; but the activities of these subordinates must be entirely controlled and directed by the above two principal assistants of the Secretary. The coordination of their individual activities is of far greater importance than any of the activities themselves, which activities are in a large degree

futile and inefficient unless properly coordinated. It is to the lack of this coordination that is due the inefficiency of the Navy Department.

4. Experience has shown the necessity of further congressional action in order to insure the accomplishment of the considerations set forth above. The following are suggested:

(a) The military assistant shall be held strictly accountable, subject to the supervision of the Secretary as regards national policy, for the military efficiency of the Navy, its preparation for war, and its conduct in war.

(b) All measures of a strictly military nature must, of course, be in accordance with general political policies laid down by the Secretary, but the law should specifically require that the responsibility as regards military consequences shall rest entirely with the military assistant, unless he is clearly and definitely overruled by higher authority. Having the responsibility for military results placed squarely upon him, the military assistant must have the necessary authority to enable him to insure that such results will be satisfactory. In other words—

The Congress should require by law that when the expert advice and assistance which it provides are overruled or disregarded the fact can in no wise be obscured as a matter of official record; and when such occurs the fact should always be known to the Congress, when acting in the discharge of its constitutional duty of supervision over the Navy.

The present system allows great chances for obscurity of responsibility. Witness the present senatorial efforts to fix responsibility.

It is submitted that the above provisions are all that should be recognized by law. Any attempt to go further may do more harm than good.

The only possible addition that might be suggested it for Congress to require, with all estimates for appropriations, the military plans upon which they are based. This would of necessity require measures of secrecy.

ANALYSIS OF THE TESTIMONY OF THE SECRETARY OF THE NAVY—GENERAL NATURE OF STATEMENT BY SECRETARY.

I have already referred to the character and general nature of the testimony which has recently been given before this committee by the Secretary of the Navy.

Perhaps it would be well, Mr. Chairman, to state that the statement I am now putting in is based only upon the records of the hearings which I have received up to the present time. There are some 600 or 700 pages of testimony given by the Secretary on cross-examination which I have not seen, and I would like to have the permission of the committee to submit a further statement in writing to the committee if I find, on examination of his evidence given on cross-examination, that such is necessary.

The CHAIRMAN. I think that would hardly be fair, because it would not leave any chance for cross-examination.

Admiral SIMS. I do not know that there is anything essential.

The CHAIRMAN. When we adjourn to-day you can look over this testimony to which you refer and then, if there is nothing more in

it which you wish to answer, let it drop at that, and if there is anything, you can go on again.

Admiral Sims. In my preliminary statement, for example, I said:

You have listened to a long statement from the responsible head of the Navy Department, remarkable alike for its mistakes and misinterpretations, and for its unrestricted assault upon my services during the war, upon my motives, and upon my ability and credibility as an officer.

Before proceeding any further, I wish to state very clearly, and once for all, that in all the comments that I shall have occasion to make upon the mistake and misinterpretations in question, I do not desire in the slightest degree to imply that they were intentional or that the Secretary was not sincerely convinced of the fairness and correctness of his conclusions, * * * but he has dealt at length with many technical questions, and in doing so has almost invariably drawn conclusions therefrom reflecting upon my conduct and upon my motives, not only during the war but during a large part of my naval career.

I also stated in beginning that I did not desire to enter upon personalities, and that I had no intention of doing so, as I did not consider that the question of my personal character is the subject under investigation before this committee.

In reviewing the lengthy statement of the Secretary of the Navy, the general outline of his method of defending the conduct of the department during the early months of the war becomes perfectly clear. As in the case of the other witnesses who appeared for the department, nine-tenths of the material that he introduced had no bearing on the questions before this committee. The reading of such a statement is inclined to confuse these issues rather than to meet them. Large masses of documents have been introduced, stressing the Navy's achievements; giving a lengthy history of the activities of the Navy Department since 1913, and even before; and introducing extraneous matter which has no bearing whatsoever on the investigation. They seem to be designed solely to serve as the basis of reflections or attacks upon myself. In the few instances in which the Secretary attempted to answer specific criticisms his testimony is based upon remarkable misconceptions and misinterpretations of fact.

In taking up the Secretary's testimony I shall deal with it under six main heads:

1. The Secretary has dealt voluminously with the Navy's achievements during the war. This stressing of the Navy Department's successes tends to gloss over its failures and withdraw attention from the latter by arousing enthusiasm over the former.

2. He has reviewed at length the acts of his administration and has bestowed unrestrained praise upon these acts. He has gone into great detail in pointing out the achievements of the Navy during his administration, and in calling attention to the expansion of the naval service in the last seven years. However meritorious these things may be, it is obvious that they, too, have no bearing upon the issues, except once again to withdraw attention from failures by putting the emphasis upon obvious successes.

3. The Secretary has attempted to meet certain of my criticisms. He has repeated the contentions of some of the department's witnesses. For example, that plans for all possible emergencies were in existence; that the Navy had never been so well prepared; and that

no department of any Government had ever been so well administered as the Navy Department during the war. He has based this contention upon the assertion that my criticisms had been completely refuted by the witnesses called by the department. He had apparently failed to read the testimony of these same admirals or he would have noted the rather curious fact that, whereas the witnesses called seemed in many cases quite willing to state in general terms, subject to different interpretations, that the Navy was all right, had always been all right, and would always be all right, they had yet in every case, where they had any intimate knowledge of detailed facts or of the specific issues under investigation, almost invariably confirmed my criticisms.

4. The Secretary has attacked the whole policy followed by the Allies in the conduct of the war upon the sea, apparently believing that this demonstrated the infallibility of the Navy Department. He has referred enthusiastically to the bold and audacious policy that inspired the department, and to his own inability to persuade the professional heads of the allied navies to adopt his interpretation of such policies. He has evidently introduced this contention in the belief that the test of a war policy is not its effectiveness or its practicability, but is its boldness and audaciousness. He has even assumed that the department had practicable plans by which such a policy could be written into action, although, as will be shown, there is no basis in fact for his assumption, and the department itself admitted, after they had given sufficient study to these very bold and audacious plans in the early months of 1917, that they were impracticable and impossible of execution.

5. The Secretary of the Navy has seen fit in his statement to make reflections and direct charges against my personal character, against my professional services, against my ability as an officer, and against my loyalty to my country. These have no bearing whatsoever upon the facts, except in so far as they may serve, by discrediting the source of criticism in the uninformed public mind, to result in discrediting also my statements, even though they have been established by official documents and confirmed by the testimony of the department's own witnesses.

6. In defending the Navy the Secretary has also seen fit to introduce matters reflecting upon the war services of the navy of a friendly nation with whom we were associated in the war. He has charged that this navy was ineffective, that it had no plans, and he has quoted the President's assertion to the effect that in the crisis it was helpless to the point of panic. He has further charged that I was so hypnotized by this service that I gennucted continuously to its policies and leaders; that my dearest hopes were bound up with such trivialities as decorations, that I consistently depreciated the efforts of my own service, ignored my own department, attempted to deceive the head of my own Nation, and endeavored to use the forces under my command in the interests of Great Britain and contrary to the interests of the United States. These charges are, of course, so baseless, so thoroughly in contradiction to the established facts, that it seems hard to understand how they could be seriously made.

Taking up these points in succession: 1. The Navy's achievements in the war. I will take up briefly the first point. A review of the Secretary's testimony shows that the following sections of it are de-

voted entirely to an appreciation of what was accomplished by the Navy:

	Pages.
Praise of the United States Navy by allied officials.....	32
Review of war activities, Bureau of Ordnance.....	50
Review of main activities of Navy Department during war.....	20
Statistical magnitude of Navy's task.....	10
The work of the transport force.....	10
The Naval Overseas Transport Service.....	10
Reports of engagements of United States vessels with submarines.....	50
The work of the Naval Consulting Board.....	10
Report of the House Naval Committee in 1918.....	40
The war activities of the Bureau of Supplies and Accounts.....	205
Reports of engagements of armed guards with submarines.....	15
War activities of other bureaus, Marine Corps, etc.....	30
War activities of the Bureau of Navigation.....	80
Efficiency of the Atlantic Fleet in 1917.....	10
Summary of statements of other witnesses in praise of Navy.....	80
Total.....	652

It may be added that the Secretary's testimony, exclusive of the cross-examination, amounts to a total of 1,400 pages in the official record.

The CHAIRMAN. Does this take in all of the statements or tables that he put in?

Admiral SIMS. Only up to the time that I reviewed his testimony. These 1,400 pages include only the part of the statement which I have seen, and do not include 600 or 800 pages of the cross-examination that I have not seen.

I made a statement yesterday which perhaps I had no business to make, in reference to the cost of an investigation of this kind. I know nothing about what that would be; but I should like to say this, that I do not care what it costs, if it costs half a million dollars, it is the cheapest thing that has ever been done if it succeeds in remedying even any single one of the defects that have been pointed out.

The CHAIRMAN. As a matter of fact the cost, as far as this committee, is a very small matter.

Admiral SIMS. It is a matter that is not worthy of consideration at all in view of the issues that are at stake, in my estimation.

The CHAIRMAN. The cost, as far as the committee is concerned, will be under \$5,000 or \$6,000.

Admiral SIMS. Nearly 50 per cent of the Secretary's statement was, therefore, devoted purely to a consideration of what the Navy succeeded in doing during the whole period of the war. This has, of course, absolutely no bearing upon what the Navy Department failed to do in preparing for the war during the early months of the war.

We can perhaps understand better the reason the Secretary had for devoting 50 per cent of his testimony to matters which have nothing whatsoever to do with the investigation by referring to a statement which he made before this committee on the 10th of May, 1920.

The Secretary said (p. 4794):

I feel, however, that the charges against the Navy are so scandalously unwarranted by actual facts and conditions that it is my duty to give you gentlemen the benefit of the fullest possible statement, covering, of course,

only those activities which constitute the outstanding achievements of the American Navy, which from top to bottom did its full duty during the war and measured up to the highest standards that can be conceived.

Leaving out of consideration the failures of the department itself, of course, I agree entirely with the Secretary's statement concerning the achievements of the Navy. When we contemplate the handicaps under which the Navy had to work, handicaps growing out of the mistakes, the lack of action, the unpreparedness for war of the Navy Department, these achievements seem all the more admirable.

Since there never has been any question of the achievements of the Navy, it is hard to understand why the Secretary, in defending the conduct of the department during the early months of the war, should have considered it necessary "to cover, of course, only those activities which constitute the outstanding achievements of the American Navy."

HISTORICAL REVIEW OF ACTIVITIES OF NAVY DEPARTMENT SINCE 1913.

The Secretary of the Navy has given you a full review of the activities of his administration since 1913, introducing many matters which have no connection, however remote, with the subject of this investigation. No one has ever doubted that the Navy has grown and developed in the last seven years; but a statement of what has been done in this respect is not an explanation or a defense for what was not done. A mere statement of achievements is hardly an excuse for failures, especially where those failures were of such a nature as seriously to affect the nation in a time of great crisis. It is hardly a defense of the unpreparedness of the Navy in 1917 to point out that the department had a policy intended to make the Navy as large and as effective as any in the world in 1925. It would seem, therefore, that the testimony introduced by the Secretary under this heading has only the remotest possible bearing upon the subject at issue. In going through his testimony we find the following sections which can be classed under this heading:

	Pages
Steps toward preparedness in gunnery.....	10
Discussion of the Battle of Jutland.....	10
Admiral Grant's discussion of submarines.....	5
Work of the Advisory Council in the Navy Department.....	5
Appropriation act of 1913.....	12
Letter written by the Secretary of the Navy to President Garfield, of Williams College, calling attention to the achievements of the present administration of the Navy Department.....	13
Speech of Admiral Benson at Naval Academy, 1915.....	10
Departmental and General Board recommendations as to preparedness, 1915 and 1916.....	15
Discussion of 1916 building program.....	45
Discussion of the order abolishing the wine mess.....	25
Personnel situation in the Navy before 1917 (creation of Naval Reserve, education of enlisted men, increase of officers since 1913, praise of Admiral Blue's administration).....	65
Total.....	210

Or a total in all of 862 pages of matter which has no bearing whatever upon the issues in this case.

Thus another 15 per cent of the testimony given by the Secretary has no real bearing on the issues. This shows that, in all,

nearly two-thirds of the Secretary's statement was devoted to matters, the presentation of which could have no other effect than tending to obscure the only issues in question. What, for example, has the prohibition of wines on board ship to do with this investigation?

METHOD FOLLOWED IN ANSWERING CRITICISMS OF NAVY DEPARTMENT.

The Secretary has repeatedly declared in his statement that he would not go into the details of operations during the war, as all my criticisms in this respect had been answered by the witnesses whom he had called. He stated that of 12 admirals who held important commands during the war 11 appeared before this committee, and 10 of these 11 devoted themselves to attacking the unfortunate eleventh, who happens to be myself. He therefore stated that he considered that the testimony of these 10 admirals was sufficient to discredit anything I had said, might have said, or ever could say. It is, of course, quite true that the 10 admirals displayed in many cases great indignation that anybody should ever criticize anything about the Navy. It is also true that many of them seemed to labor under a mistaken assumption that I had attacked their personal services as well as the Navy's services in the war, and explicitly stated that the only reason that they had for appearing was to refute these attacks upon the Navy. I have already quoted the testimony of a number of these admirals on this point.

It is true that many of them made general statements indorsing the department's conduct of the war, and expressed their personal opinions as to the efficiency of the department during the war. I have already revised the testimony which these witnesses gave, however, and have called attention to the fact that whenever these witnesses were speaking of specific matters of which they had personal knowledge their testimony was in general absolutely confirmatory of my own testimony.

Four of the admirals referred to by the Secretary held subordinate commands in European waters, one at Gibraltar, two in the North Sea, and the fourth on the coast of France. All of them testified that they knew nothing whatsoever of the relations between myself and the department, or of the actions of the department during the early months of the war. Any testimony they gave was, therefore, a mere statement of personal opinion, unsupported by evidence of any kind.

Two of the admirals who served on the General Board during the war, or in other positions in Washington, testified that they had no administrative duties in the Navy Department, and that they were not familiar with the administrative action of the Navy Department in the early months of the war. Both of these admirals called attention to many of the recommendations which they had made to the department, but had no knowledge whatsoever as to whether these recommendations ever had any effect upon the action of the department. Their personal opinions, too, concerning what the department did were unsupported by any definite evidence.

Admiral Mayo in his testimony took issue with a few detailed points that I have raised, but in general his criticisms of the policy followed by the department during the war were just as strong as

mine. He pointed out that exactly the same unsatisfactory condition prevailed in his relation to the department, as that to which I have invited your attention with regard to the relation between the department and the forces in Europe.

The other two admirals, who served in the Office of Operations during the war, similarly made strong statements condemning me personally, one expressing great indignation that I should criticise the Navy, and the other stating that my actions were such as might be expected from an insane patient at St. Elizabeths. Both of these officers, however, in dealing with the condition of the Navy Department during the war pointed out, in confirmation of my own testimony, that the Navy entered the war unprepared, that during the early months of the war it had no officially approved, definitely coordinated plan of activities, and that it made mistakes.

The tenth admiral, who was in charge of our naval railway batteries in Europe during the war, made criticisms of the administration of the Secretary which were much more forceful than anything that I have said.

Thus, an analysis of the attitude of the 10 admirals, whom the Secretary says have refuted my testimony, shows that 6 of them knew nothing about the issues and were merely stating personal opinions; and that they did not attempt to introduce any evidence in refutation of the detailed and documentary evidence which I introduced in support of every point of my testimony. Two of the admirals were in general agreement as to the facts of any testimony, but devoted their efforts to an attempt to excuse and explain why these facts should have occurred. The remaining two were, in general, in complete agreement with my criticisms.

When, therefore, the Secretary bases his refutation of my criticisms upon the assumption that these witnesses refuted everything I said, his statement can be explained only upon the assumption that he is entirely unfamiliar with the testimony of these witnesses, particularly on cross-examination, or that he believes that personal opinions are of more value in arriving at the truth than facts based upon official documents and an intimate knowledge of what actually happened.

In whatever effort he made to answer any one of the specific points of my testimony, he followed in general the same method as the witnesses called before this committee at his request. Thus, for example, he introduced a 60-page statement with regard to the war plans of the department and the steps taken to prepare the department for war. He insisted that we had war plans, which, of course, is quite true, but without attempting to show that these plans applied to the wholly unusual war in which it was evident, after 1915, that we were most likely to be engaged; nor has he, nor any of the other department witnesses, shown that these plans, if such existed, were known to anybody who had anything to do with the actual conduct of the war. I received no plans or statement of policies during the first few months. Admiral Mayo also testified that he had received no plans or policies. None of the officers who were sent overseas to serve in the European forces received any indication or information as to what these plans or policies might be. Admirals Rodman, Strauss, Niblack, Wilson, all testified that they received no instructions or plans whatsoever from the department, except to act as circumstances might dictate as cooperating with the Allies.

efficiency and had well trained officers and men actuated by a splendid morale, the whole Navy was similarly prepared, manned, and ready for war; although, as the testimony of all the department witnesses has shown, the only part of the Navy in 1917, which could be considered ready for war, was just that part of the Navy which it was least probable we should use in the event of war, as should have been apparent since 1916.

In taking up various detailed points of my testimony, such as the department's delay in acting upon recommendations made from abroad, and in getting into the war in the early months, the Secretary reviewed the actions of the department and showed that in most cases my recommendations were ultimately accepted.

I would like right there to invite the attention of the committee very specifically to that point, that no essential recommendation that I made from the other side failed of adoption by the Navy Department after these killing delays which have been put in evidence.

He admitted the delay in accepting them, and his testimony, like that of some of the department's witnesses, was designed merely to explain a way to excuse this delay. He even went to such lengths as to minimize the part our Navy did play in the war, insisting that it would have made no difference to the progress of the war, or to its length, if our forces had gotten into action earlier. If his argument was followed to its logical conclusion, it would necessarily mean that our forces played no part at all in bringing about the victory. The inconsistency of this is shown by the fact that in another place the claim is made that the Navy had shortened the war seven or eight months by reducing the submarine menace and making possible the transport of troops to Europe. If the Navy, after it got into the war, was able to shorten the war by seven or eight months, it would seem that no stronger proof could be asked of the claim I made, namely, that if the Navy had gone into the war promptly, instead of after a delay of many months, a delay which the Secretary and his witnesses have admitted, the war would have been further shortened by an additional four months.

DELAY IN ADOPTING THE CONVOY SYSTEM.

In dealing with the convoy system, for example, the Secretary maintained that the action of the department had not delayed the introduction of the convoy system. His argument seems to be as follows:

First. The Allies had already failed for three years to introduce the convoy system.

Second. The President and the General Board suggested convoys even before we came into the war.

Third. The United States used convoy in sending troops abroad in June, 1917.

Fourth. That our forces got into European waters as soon as they could be used with the convoy.

which depended so largely upon reinforcements from America, until they could be assured that those reinforcements would be forthcoming; and at least a part of the delay of the admiralty in putting the convoy system into effect was undoubtedly due to the inability to get any decision from the department for two months on this very vital question, or to get any assurance from the Navy Department that the necessary reinforcements which were available on the Atlantic coast would be sent to European waters to make possible the escorting of convoys in the danger zone.

Similarly, the Secretary's contention that the President and the General Board had recommended convoy before we entered the war, bears not at all upon this delay of the department in accepting the convoy in 1917. It is not the recommendations which were made to the department before the war which are of any importance so far as this investigation is concerned. What does matter is the action taken by the department upon the request of the Allies for help in putting the convoy into operation, and the reason why this help was so long delayed.

Similarly the fact that the department convoyed troops over in June, 1917, has nothing whatever to do with the question under discussion of convoying merchant ships carrying vitally essential supplies. The Allies had been convoying troops since 1914. Consequently, it is absurd to contend that the Navy Department was the first to suggest convoy or that the Allies had been unwisely delaying its adoption for three years. The Allies had long been using the convoy system where it was considered advantageous to do so; that is, in the convoying of troops and supplies to their armies.

In connection with this defense of convoy the question as to when it should be put into operation is a comparatively simple one. That may be illustrated by the fact that I think almost without exception the great steamship companies on the other side resisted convoy, for the simple reason that freights were high and vessels sailing independently could make the voyages much quicker, and the company could make more money without the convoy than with them. I remember hearing one of them make the statement that their statistics showed that before the introduction of the convoy they could count upon a vessel making 12 or 13 voyages without being sunk, and that on that basis they would prefer to send all of their vessels unescorted and take the loss of one out of 13, and make more money than they would if they went in a convoy and no vessels were lost at all. You can therefore see that when the responsible military authority and Navy authority come to discuss the question of a convoy what they had to consider from a military sense is the flow of freight into the country; that is to say, food, munitions of war, etc. They had to decide whether it is better to let the vessels sail independently, and thereby get a greater flow of freight into the country at that time or to put the vessels in convoy and thereby diminish immediately the flow of freight by, say, 20 per cent. When, however, the destruction by submarines becomes so great that the available tonnage is approaching the point where they can not allow

it to be increased any more, then, and then only, does it become advantageous from a military point of view to put the convoy in operation. The whole matter is perfectly simple. The only trouble is that the public considers it without their technical military knowledge and with only their historical knowledge of the convoys that have been put in operation in old times.

ATTEMPT TO JUSTIFY DEPARTMENT'S DELAYS.

The Secretary of the Navy in his testimony dealt casually with various of the specific facts which I had included in my original letter and in my testimony and for which I introduced extensive documentary proof. The line of his defense was apparently fourfold:

First. In some cases he denied categorically the facts, without introducing any evidence to back up his statement other than the assumption that the departmental witnesses had disproved my criticisms. In this connection I think I have already shown you that exactly the contrary is the case; that, in fact, my criticisms are proved by the department's witnesses alone; and, as I have previously stated in the beginning, I intended to and have confined my rebuttal statement solely to the evidence given by the department own witnesses.

Second. The Secretary insisted that everything was done that could have been done, and that if any delays occurred it was not the fault of the department, but was due simply to the fact that the things requested were not available. In this connection I need only state that with regard to the sending of antisubmarine craft, for example, Admiral Wilson has testified that 55 vessels were operating along the Atlantic coast patrolling for submarines within a month after the declaration of war. Most of these vessels were afterwards sent abroad, and if the department had desired to do so most of these 55 vessels together with some 30 additional destroyers could have been sent to Europe in the first month of the war if the Navy had been properly prepared when war began. Consequently, the Secretary's contention that the vessels were not available was just as much refuted by the department's witnesses as his contention that officers were not available.

Third. The Secretary has insisted that I was not in reality the authorized representative of the Navy Department overseas, that I was only a liaison officer sent over to get certain specific information, that the responsibility for the successful operation of my forces rested with the department. If anything had happened, we would have seen where the responsibility rested all right.

He implied that my recommendations could not be given any particular weight because, as he says, I genuflected to the British, was so thoroughly "hypnotized" by the British, that I attempted "to lure the President" into dangerous misconceptions of the attitude of foreign Governments. In other words, the Secretary has attempted to justify the delays, which the department's witnesses have confirmed, on the ground that their representative abroad was thoroughly unreliable and could not be trusted; that every recommendation he made was therefore subject to suspicion, and the department in determining upon its action generally decided to do things, not in

line with his recommendations but in spite of them. Note the fact, however, that they always did follow all the recommendations.

The Secretary in his testimony has reviewed the different steps taken by the department. He has definitely stated that I was not responsible for initiating any policy or plan followed by the department in the war. He apparently has implied that my recommendations had nothing to do with the action of the Navy Department. It seems hardly necessary for me to comment on this statement. If the assumption that he now makes, that the department held up my recommendations in 1917, because they distrusted me, is true, the Secretary is convicting himself of having retained in power for nearly two years in European waters, in command of all of our naval activities in Europe, and acting as the department's representative in the allied naval council, an officer whom he considered untrustworthy and almost treasonable in his attitude toward his own country. No graver breach of the most fundamental principles of warfare could be imagined than that.

Fourth. The Secretary has contended that, even if there were delays, they were of no consequence. It must be assumed, therefore, that, if a delay of two or three or four or six months in getting our forces into action was of no importance, and had no consequence in the prolongation of the war, the whole of our naval intervention in the war must be assumed to have been futile, for we were doing the same things in the later months that we could and should have done in the earlier months. If our intervention at the most critical time, in the period from April to September, 1917, when the submarine losses were heavier than at any later period, would have had no effect on the situation, then certainly our intervention when it did come must have had no greater effect; and, consequently, so far as the war is concerned, if one accepts the Secretary's assumptions, the whole of our naval activities can be dismissed as unnecessary; and yet the Secretary accuses me of belittling the activities of our Navy in the war.

The chief point involved here seems to be as to whether the intervention of our naval forces was of any value in a war such as the Great War. Most of the witnesses who have appeared before you have agreed with my contention that our Navy rendered very great and very valuable services indeed to the allied cause; that it contributed, out of all proportion to their numbers, to bringing about the final victory and to shortening the war.

NAVY DEPARTMENT'S DELAYS PROLONGED THE WAR.

The point in my testimony which has received the most violent criticism from the Secretary himself, and from many of the leading officers in the department, is my estimate of the prolongation of the war by the delays on the part of the Navy Department. My estimate has been called a "gross and wanton attack" upon the whole Navy, and an outrage upon the service. It almost seems that the stock of epithets and denunciatory adjectives in the English language has been exhausted in the effort to show how illogical and unreasonable my estimates were.

This is, of course, a familiar and well-recognized method of meeting unpleasant facts. It is always easier to criticize the critic than to answer his criticisms.

In considering this question of whether or not the delays, omissions, military errors, and lack of preparedness for war on the part of the Navy Department, prolonged the war and increased the losses, it is hardly necessary to enter into any extensive review of the evidence. It is true that many distinguished admirals have commented rather pityingly on my intelligence. It is also true that they have not hesitated to condemn my estimate as being 57 different varieties of foolishness and misrepresentation. The commander in chief of one of our Pacific fleets made the illuminating remark that there are three kinds of lies; lies, damn lies, and statistics, and that my estimate falls into the latter class. But, unfortunately for the department's case, practically all of these witnesses, while stating firmly personal opinions in contradiction to the results of my estimate, in their testimony confirmed in fact the premises upon which my estimate was based.

Manifestly their inability to draw a logical conclusion from these premises has no bearing upon the chief contention which I made; that is, that the Navy Department's delays and lack of preparedness did result in postponing the active intervention of our full naval force for many months; that this naval force, when it did exert its power, contributed out of all proportion to its numbers to the victory, and consequently resulted in shortening the war. The Secretary of the Navy, Admiral McKean, and other witnesses, have themselves told you that the war was shortened from six to nine months by our activities when once we did begin fighting whole heartedly. If our naval force after it got into action by assisting very materially in combating the submarine menace, by making possible the safe transport of any army (principally after March, 1918) shortened the war, it must be equally apparent that if this naval force had been in the field from April, 1917, on, the submarine menace would have been checked and gotten in hand much sooner; the transport of troops overseas could have been expedited, and the war could have been shortened still further. In my previous estimate before you, I merely assumed that, if our intervention had been effective from four to six months earlier than it actually was, we would have shortened the total duration of the war not only the 6 or 9 months mentioned by these witnesses, but 10 months or a year. The Secretary and Admiral McKean have told you that in 1917, and even in 1918, it was believed that the war would not be ended until the summer or fall of 1919. They ascribed the victory of 1918 to two causes, which are very intimately connected: First, to the breakdown of the morale of German's population; and, second, to the effectiveness of the American intervention. They have all admitted that the American intervention had a tremendous effect in depressing the morale of the Germans, and convincing them of the futility of further prolongation of the war. From their own arguments, therefore, it appears that, if our intervention had been effective earlier, the German morale had similarly broken down earlier; that, therefore, the victory of the Allies would inevitably have been accomplished earlier than it actually was.

It should be clearly understood in all this discussion that I have not at any time condemned the Navy for prolonging the war. I have not insisted that the sacrifices of blood and treasure, to which I referred, could be rightly charged to the Navy itself, or, indeed, that the responsibility rested upon any individual in or out of the Navy. I merely stated an obvious military conclusion—that mistakes and delays in warfare are detrimental; that even if they do not bring defeat they cause unnecessary losses and unnecessary prolongation of the warfare. Every student of military history, however amateur he may be, is, of course, thoroughly familiar with this fact. He knows as well as I that the price one pays for unpreparedness for war and incompetence in the conduct of war, for delays and military mistakes in the face of the enemy, is either military disaster or unnecessary losses.

Fortunately, conditions were such in the Great War that we escaped military disaster. We escaped any very great losses of men. But it does not follow at all that our sacrifices in bringing about the victory were not unnecessarily great because of the delays and errors which marked the early months of the war in 1917. There is, of course, ample room for very great differences of opinion as to the extent of these delays and the resulting sacrifices. So far as this investigation is concerned, it seems to me that the size of the estimate is a matter of no particular consequence. If as a result of mistakes and delays the war was delayed a single day or a single thousand of lives were lost unnecessarily, I should consider my criticisms more than justified, if they had as their result such a careful analysis of the causes as to make impossible the repetition in the future of similar mistakes and the consequent danger of disaster.

Practically all of the department's witnesses, as I have already stated, agreed with my premises.

The following can, therefore, be stated as proven:

First. That our naval forces contributed very greatly to victory, and by their intervention shortened the war.

Second. That our naval forces did not intervene immediately and in their full strength. Admiral Wilson told you of the 55 vessels in the patrol force held on the Atlantic coast in 1917. Capt. Pratt told you that if his advice had been followed the 51 destroyers of the Navy could have been sent abroad on the first day of the war. All department witnesses have agreed in substance that if the Navy Department had desired to do so a very much larger force could have been sent abroad in the early and critical months of the war. There has been no attempt to disprove my statement that, although the Navy Department was advised on May 1 to accept the convoy system, and informed that the success of the system depended upon their cooperation, no indication of their willingness to cooperate was received by me or the Allies until July 5, 1917, and that as a result the convoy system did not become fully effective until the month of September, whereas it would have been fully effective by the end of the month of June.

Consequently it can hardly be denied that the Navy Department's actions, however they may be explained or excused, did result in holding back essential antisubmarine forces for many months and did result in delaying the full use of the convoy system for at least three months.

Third. That the American intervention, as it became effective and in proportion as it became effective, depreciated the German morale, and thus hastened the breakdown of the German military power.

Fourth. That the intervention of our Army in France depended entirely upon getting sufficiently in hand the submarine menace to make possible the safe transportation of our troops, and particularly to make certain that the enormous volume of the supplies could also be transported continuously. Therefore the sending of an army and its support in the field was dependent altogether on success in combating the submarine menace.

Fifth. That after our forces did become effective the sinkings of merchant tonnage by submarines declined almost immediately from over 600,000 tons a month to an average of less than 400,000 tons a month. By the time the main body of our Army came to be transported overseas—that is, after April 1, 1918—the losses had fallen to an average of only 250,000 tons per month.

Sixth. Our earlier intervention would have resulted in checking the submarine menace earlier, thus saving a great many ships and thus making possible the earlier transport of American troops.

Seventh. Generally speaking, in any war the value of the services of a military force depend upon the extent to which they contribute to the final victory, to a shortening of war, and to the reduction of losses. Any delays in making such forces effective result inevitably in unnecessary sacrifices.

Quite a number of the officers who have appeared before you have agreed in substance with my estimate, although disagreeing as to the exact figures. Most of the witnesses recognized that unnecessary losses had occurred, but did not believe that these losses were as great as I had estimated them. Various efforts were made, by introducing to you various kinds and conditions of statistics, to refute conclusions which I reached. Many of these statistics were based on the assumption that the proportion of unnecessary losses which should be rightly debited against the Navy Department should be in the ratio of the proportion of our naval forces overseas to the total of the allied naval forces.

That is a conclusion which is unworthy of the fourth grade of arithmetic in school, as I will show you later.

That is, if the Allies had 1,000 vessels and we had 50, we should only be credited with 5 per cent of the unnecessary losses. My point was, rather, that we should be charged with losses not in proportion to the forces we had in the field, but in proportion to the forces we could have had, and should have had, and did not have. If by having 100 vessels in Europe, instead of 30, by July 1, 1917, the sinkings by enemy submarines could have been cut in half, obviously the amount of tonnage that would be estimated as being unnecessarily sunk could not be proportioned among the various Allies in proportion to the number of vessels they contributed to combating the submarines, but the whole responsibility would have rested upon us, even though we had only held back 70 vessels that might have been sent, whereas the Allies might have had several hundred in the field.

There is one consideration which has apparently been entirely overlooked, which I may be able to illustrate by one or two simple examples.

When you are weighing an object in a balance, the scale does not tip until the last ounce weight is put into the balance, though of course, an ounce may be only 1 per cent of the whole weight.

Similarly, a bridge is of no value until the last span is put in place although it may contain 50 or 100 spans.

I reported in my first dispatches that the situation in Europe in 1917 was such that the allied navies were strained to the limit after almost three years of continuous activity. The number of destroyers and effective light craft available was pitifully inadequate to meet the demands thrown upon them by the intensive submarine campaign that began in February, 1917. The responsibility which fell upon the British Navy of containing the German high seas fleet, required that the British should keep continuously with the Grand Fleet a sufficient number of destroyers and other light craft to make it possible at any time to meet successfully the German high seas fleet. The command of the sea, and consequently the whole of the responsibility for making possible the ultimate victory of the Allies, rested upon the Grand Fleet. This was the primary mission of the British Navy, and consequently it was absolutely necessary that these light craft should be available with the Grand Fleet. Even so the number of destroyers with the Grand Fleet was much less than the number which the Germans had. It should be unnecessary to point out that the Germans could always pick their moment for a high sea engagement. Consequently, it would have been suicidal had the Admiralty withdrawn from the Grand Fleet any destroyers absolutely essential to the efficiency of that fleet.

Similarly, the British Navy and the French Navy had many other absolutely essential duties. The maintenance and reinforcement of the allied armies on the western front, and in the other theaters of war, required that a large number of light craft should be used exclusively for the convoy of troops and their vital supplies across the Channel and to and through the Mediterranean. The number of vessels required for these essential military services, upon which the whole of the fighting power of the Allies depended, left pitifully few vessels available to meet the submarine campaign against merchant shipping which in the early months of 1917 assumed such alarming proportions.

All of the department's witnesses have agreed that it would have been a good thing to have sent forces over sooner if we could have done it. Those in the best position to know, such as Capt. Pratt, assistant to the Chief of Naval Operations, said that the vessels could have been sent, and that he would have sent them but that the decision did not lie with him. Admiral Fletcher, Admiral Benson, Admiral Badger, and others, all admitted that this was true, but that the department feared that a German submarine or perhaps two or three of them even, might come over and sink a few ships on the American coast, in order to scare the department and the American people. Therefore, for fear of being scared, the department considered it necessary to hold back its forces for the motives of prudence which Admiral Benson has so emphatically expressed to you. These forces therefore were held back, and the adoption of the convoy system was delayed. Heavy and unnecessary losses of shipping were the inevitable consequence. One of the admirals who appeared

before you, in a long statistical analysis, called attention to the fact that I estimated that something under 40 per cent of the total unnecessary loss was due to the failure of the Navy Department to enter the war effectively and immediately. I think that this is probably not an unreasonable estimate.

A few quotations from the testimony of the department's witnesses will show that their disagreement is not with the principle of my estimate, but is one of details as to the exact figures to be arrived at.

For example, Admiral Rodman made the following lucid statements (p. 2150):

Let us assume that there were a certain number of vessels of the Allies engaged in trying to get the submarines. Our percentage of that number, if we had sent every ship that was available for submarine combat in the infested area, would have been only a small percentage, say 10 per cent. * * * Therefore * * * 10 per cent of that amount of shipping and that amount of lives that were lost by the submarine menace * * * give us 10 per cent, if you like maybe; but let us make it our proportional to the number of ships that you have sent there and that statement ought to be knocked into a cocked hat. That is my opinion. I have no figures.

In continuing his testimony, Admiral Rodman again said (p. 2154):

The CHAIRMAN. You think he [Admiral Sims] was stating it [the losses] too high?

Admiral RODMAN. Let us assume that that number of men and that amount of tonnage were lost. That is a fair assumption. I assume they were. There were others in the war besides us, and there were others combatting the submarine menace. * * * Now, we could not have sent more than 5 or 10 per cent of the vessels that were then, or were to be, engaged in combatting the submarines. Give us 10 per cent of that number and you will give us our fair allowance in any conditions.

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There is no question whatever in my mind * * * but that our Navy did its full share most efficiently and splendidly in helping to bring the war against the Huns to a successful and victorious conclusion.

Admiral Wilson's opinion in the matter is given in the following quotations.

When tasked by the chairman whether the American naval forces contributed materially to the winning of the war, Admiral Wilson said:

I know they did. * * * There is no question about that, and I have had many, many prominent French people tell me the same thing.

When asked by Senator Pittman if my estimate of losses was correct, Admiral Wilson said (p. 2234):

I do not believe this to be true. On the contrary, I believe that our naval forces from the first cooperated in a most successful manner with the naval forces of our associates in many portions of the seas, and by their splendid and efficient work materially aided in shortening the war and in this manner saving untold life and property.

When asked by Senator Hale if the war would not have been materially shortened if we could have had our naval vessels in European waters sooner, Admiral Wilson said (p. 2237):

It would have had a wonderful effect. * * * The evidence on that is clear. If they could have flown them right across, of course it would have its effect.

Similarly, Admiral Fletcher (p. 2367) admitted that the Navy did very active and efficient work in combatting the submarines; that they had a great deal to do with checking the losses; and that the sooner our intervention could have occurred the better. He said that if our ships could have gone over in the first two months "it would have done a great deal. The sooner we got into it, of course, the more shipping there could have been saved."

Admiral Fletcher (p. 2475) :

If there was any unnecessary delay in sending our craft abroad when they were not needed on this coast, the responsibility for that is fully up to the Navy Department. * * * It is a question of policy * * * and the operation of the fleet, and that, of course, would be up to the Chief of Operations and to the Secretary of the Navy. The ultimate responsibility would be with the head of the department.

Similarly, Admiral Niblack (p. 2460) admitted that our forces played a very great part in combatting the submarine, a part out of all proportion to their numbers, and said :

The sooner we could have gotten our forces over the better, provided we decided to send them over.

The CHAIRMAN. Do you think they did more than their share; more than 3 per cent of the work of checking the submarines?

Admiral NIBLACK. I certainly do. * * * At the very time that Admiral Sims was saying we had only 3 per cent of the submarine forces there were in Europe 90 per cent of all the shipping that was going between Great Britain and the Mediterranean was escorted solely by American ships under my command at Gibraltar. * * *

The CHAIRMAN. And any advantage there was in sending those forces over, if the plan could have been followed out sooner, would have been greater?

Admiral NIBLACK. I have no doubt. I would have been glad to have gone over much sooner myself. * * *

Admiral Strauss, in his discussion of this same question of the prolongation of the war, said that he believed that the Navy had a great deal to do with putting down the submarine menace.

Admiral Strauss (p. 2599) :

Much more than 5 per cent. * * * I think the true figures lie somewhere between the 5 per cent that Admiral Sims told the House committee about and the 38 or 39 per cent that he accuses us of negligently losing.

In the same way Admiral Badger agreed that the time element was one of the greatest importance in war, and that if there was any delay in sending forces abroad, it was a military error.

Admiral Badger (p. 2738) :

The vessels were sent by the Navy Department * * * by the directing head of the Navy Department * * * and if they, knowing the conditions * * * thought at the time that the delay should take place in sending out any type of ships abroad, it was their duty to act in the way that they did. * * *

Page 2739 :

The officers who were responsible for the delay will have to justify themselves. * * * I can not say what their action was. * * * The final responsibility rests upon the head of the organization.

Admiral Badger admitted that the vessels were needed abroad and would have been very effective abroad, but that "the action of the department in not complying immediately (in sending them) may have been based on perfectly just and sound reasoning * * * at least they did not act immediately on the requests of Admiral Sims."

It seems unnecessary to quote further from the department's witnesses, as the testimony all was more or less along the same lines. They all admitted that the American forces, once they entered the war, did very effective work, and that it would have been very much better, and greater results would have been accomplished, if we could have gotten our forces over sooner. These officers have also testified that, in their belief, the Navy, when it did get into the war, shortened the duration of the war from six to nine months. In view of this fact it seems that my own estimate, that if we could have been in the field in the first month in adequate numbers we would have still further shortened the war, has been abundantly confirmed. Therefore, in order that my estimate may be less distasteful to some of my critics, let me state it in this way: The Navy in the war performed splendid and magnificent services to the cause of the Allies. By their efficiency and because of the ability, initiative, and enthusiasm with which their personnel performed their duties, they contributed to the victory out of all proportion to their actual numbers. As a result of their efforts the war ended in November, 1918, instead of running until the following summer. The Navy, therefore, was to a great degree responsible for shortening the war from six to nine months.

If the Navy had been permitted to get into action from the first month of the war, if the Navy Department had been adequately prepared for war, if it had had plans for the kind of war that the Navy had to fight in 1917, if it had cooperated whole-heartedly with the Allies from the very beginning, our Navy's achievements would necessarily have been even greater. Having gotten into the war earlier it would in that earlier period have done just as much and just as splendid service as it actually did do later. The Navy, therefore, instead of having the credit for shortening the war six to nine months would have had the credit of shortening it from 10 months to a year. This estimate is, in effect, the same as my original one, but I imagine that, stated in this way, it may be more agreeable to those who are apparently concerned more with the form than with the substance of criticism.

THE SECRETARY'S ATTACK ON THE ALLIED NAVAL WAR POLICY.

One of the chief features of the testimony of the Secretary of the Navy has been his criticism of the policy followed by the Allies in the conduct of the war—although this was the policy followed by the Navy Department throughout the war, and the policy which had as its result the defeat of the German submarine campaign: which made possible the transport of the American Army to Europe and made possible the victory of the Allies over the Germans, which came practically as soon as that Army got into action. The Secretary in his testimony, for example, said (p. 4787):

During the conduct of the war in several important particulars I felt that he (Admiral Sims) did not fully measure up to expectations in certain particular ways, of which six may be mentioned:

(1) He lacked the vision to see that a great and new project to bar the submarines from their hunting grounds should be promptly adopted and carried out, no matter what the cost or how radical the departure from what ultra-prudent men regarded as impracticable * * * (p. 4708). As to the North Sea barrage, the department felt it necessary, so much importance did it attach to the enterprise, to send Admiral Mayo over to convince our British naval

associates of its feasibility after Admiral Sims had accepted the view of the British Admiralty that it was impracticable and had tried to induce the Bureau of Ordnance and the department not to press it.

Again the Secretary of the Navy said (p. 4897) :

If this mine barrage, Mr. Chairman, had been laid in 1917 instead of 1918, it would have done more than all the other measures put together to curb the submarines. Millions of tons of shipping would have been saved, and with the other barrages laid the German U-boat warfare would have ended.

In his discussions of the bold and audacious policy which he personally favored, the Secretary has identified this policy with the northern mine barrage by contending that the northern mine barrage was the measure by which this policy could have been carried into effect. Disregarding completely all the facts in the case which have been presented before this committee, both in my own testimony and in the testimony of Capt. Pratt, the Secretary stated (p. 2938) :

It was six months after we proposed the laying of this barrage before it was definitely and finally approved by the Admiralty. There is every reason to believe that if Admiral Sims had favorably presented the proposition to the British authorities and had urged the view of the Navy Department, instead of airing his own personal proposition, it would have been accepted by the Admiralty six months earlier.

From the Secretary's testimony in regard to this question it would appear that, in his opinion, the northern mine barrage was the one big offensive antisubmarine measure that the Navy Department wanted to see carried through; that it would have been possible with the matériel available to have laid this barrage in 1917; that the Navy Department proposed this definite barrage on the 16th of April, 1917, and that I opposed it and refused to present the department's ideas to the British Admiralty; that, finally, the department, in despair at my insubordinate disobedience, sent Admiral Mayo to England to propose again this mine barrage to the British; and that in spite of my opposition the mine barrage was approved by the British, and was then carried out as a joint operation. In view of the absurd and total inaccuracy of each of these points, it is necessary to pause for a moment and consider them in turn.

THE DEPARTMENT'S "PLAN" OF APRIL, 1917.

In the first place, let me review briefly the facts concerning the mine barrage. Secretary Daniels has told you that this plan was first proposed to the department in a memorandum of the 15th of April, 1917, submitted by Commander Fullinwider, of the Bureau of Ordnance. He also stated that on receiving this memorandum the department immediately cabled me asking me to take up the northern mine barrage proposal with the British. This is a completely inaccurate statement of what happened. On the 15th of April, Commander Fullinwider submitted a memorandum to the Chief of the Bureau of Ordnance on the subject "Antisubmarine warfare." This was not a plan for a northern mine barrage, but was a general review of the whole military situation at that time, containing the personal ideas and recommendations of Commander Fullinwider as to a great variety of different things that he believed should have been done. About half the memorandum was a discussion of various methods of protecting merchant shipping; the other half was devoted to a discussion of various antisubmarine

methods. He suggested that there were three general lines of attack on submarines; that is (p. 3570) :

- (a) Destroy them at their home base.
- (b) Prevent their egress from or ingress to their home port.
- (c) Hunt them down and destroy them at sea.

Commander Fullinwider proposed, among other things, that the offensive efforts against submarines should take the form either of closing the German ports or channels or of establishing mine barriers to seal up the North Sea. He said (p. 3571) :

All measures for sealing ports or channels present the difficulty that the Germans have so extensively mined their waters and have such supervision and control thereof as to render such measures almost, if not entirely, impracticable.

Note that—

It is possible, however, to establish mine barriers in zones at a distance from the German coast, practically sealing up the North Sea. This will require between 500,000 and 1,000,000 mines.

After a further discussion of the question of barrages in the North Sea, Commander Fullinwider estimated (p. 3574) that 774,000 mines would be required.

The message which the Secretary of the Navy sent to me on the 16th of April, 1917, has already been quoted numerous times during these hearings. It made not the slightest reference to any proposal of a barrage in the North Sea. It merely desired to know whether any plans had been made to seal up the German bases and ports, and whether such a plan would be feasible. So that the statement made by the Secretary of the Navy is wholly and absolutely false in all respects, due undoubtedly to the fact that he has not looked into this testimony with sufficient care.

I replied to this at length by cable and by letter, pointing out the fact that such proposals had been made since the beginning of the war, had been carefully studied, and were considered impracticable. I have already read you in this statement Admiral Mayo's comment on one proposal to accomplish this, which was discussed at the naval conference in London. Admiral Mayo believed the scheme quite impracticable. The Navy Department, in their cable to me of October 21, 1917, similarly stated that, in the opinion of the department, this scheme was impracticable. No officer with any detailed knowledge of the situation has ever contended that the same matter was practicable, however bold and audacious and enchanting to the imagination it may seem. The Navy Department itself, after receiving my message of April 18th, never questioned the fact that the scheme proposed was impracticable.

THE DEPARTMENTAL MINE-BARRIER PROPOSAL OF MAY 11, 1917.

It might perhaps be well to mention the fact that a mine barrier and a mine barrage are quite different things, as you will see.

In the Bureau of Ordnance's official history of the mine barrage we find the following statement (p. 3358) :

On April 17, 1917, the department cabled Admiral W. S. Sims, in command of the United States naval forces in European waters, directing him to report on the practicability of blocking the German coast efficiently in order to make the ingress and egress of submarines practically impossible.

unreasonable. Failure to shut in the submarines by a coast blockade using mines, nets, and patrols in the bight and along the Flanders coast focused the attention of the department upon plans for the alternative of restricting the enemy to the North Sea by closing to him the exits through the channel and the northern end between Scotland and Norway. * * * These are outlined in a memorandum of the Office of Operations dated May 9, 1917. * * * This was proposed to be done by establishing a barrage of nets, anchored mines, and floating mines.

Which, of course, was the proposition originally carried out, as you will see.

Consequently, the department itself suggested no barrage until the cable which I received on May 11 and the kind of a barrage which they proposed at that time was clearly impracticable, in view of the amount of material that would have been required and the length of time necessary to have made it effective. The British had long before carefully considered similar plans, but had recognized that the quantities of material required and the length of time and the number of vessels necessary made the scheme entirely impracticable. As has been pointed out to you, the whole basis of the northern barrage, the one thing which made it possible, was the invention of a new type of mine which enormously reduced the amount of material required and the length of time necessary. The department themselves have at all times fully recognized this until the Secretary made his astonishing statement before you that the mine barrage could have been laid in 1917 and that I was myself personally responsible for the delay.

THE ANTENNA MINE ALONE MADE THE NORTHERN BARRAGE POSSIBLE.

In 1918, the Secretary of the Navy evidently had a very different opinion, for we find in his annual report submitted to the President in December of that year the following statement (p. 48):

The plan to close the North Sea and thereby deny enemy submarines free access to the Atlantic from German bases, had its inception in the Bureau of Ordnance in April, 1917, immediately following the entrance of the United States into the war. At this time there had not been developed anywhere a type of mine suitable for the Scotland-Norway line, whereon the depths of water are as great as 900 feet and where a prohibitive number of mines of the then existing type would have been required to mine this line from the surface to a depth of 250 to 300 feet.

That is in direct contradiction to the Secretary's statement in the statement he has made, and that is his own statement which contradicts his other statement.

The same opinion is contained in the Bureau of Ordnance's official history of the mine barrage, and has been repeated to you by a number of the witnesses who have appeared to testify. Thus, for example, Capt. Pratt said (p. 3350):

When the antenna mine became developed it (the northern mine barrage project) then became a feasible project and was taken up.

As a matter of fact, the first test of the new firing device which was to form the basis of the new mine, did not occur until the 18th of June, 1917, at New London. These tests were not altogether satisfactory,

and no action was taken by the Bureau of Ordnance to submit plans for a barrage based on the use of this mine until after further tests had been made on the 10th of July, 1917. At this time (p. 3368)—

Although the design of the complete mine had not yet been decided upon and could not be completed for several months, the mine section of the Bureau of Ordnance was sufficiently assured of the successful development of the mine to submit tentative plans to the chief of bureau.

This quotation is from the Bureau of Ordnance's official history of the mine barrage. It was not until July 30, 1917, that the Bureau of Ordnance addressed a communication to the Chief of Naval Operations, submitting complete information regarding the new firing device, and "proposing an American-British joint offensive operation in the form of a northern barrage."

The question of the possibility of a northern barrage is clearly and accurately discussed in the official history of the mine barrage, issued by the Bureau of Ordnance; for example (p. 3410):

The possibility of a northern barrage depended upon the successful design of a mine to a far greater extent than is usual in such matters. Had nothing better than the ordinary type of mine such as that used by the British (and also by the United States at that time) been available, the northern barrage project would have been utterly impossible of execution within the time allowed by reason of the enormous number of mines required for a barrage 280 miles long. The combined resources of the Allies, especially in the matter of high explosives, could not have produced the required number of mines, nor could the combined mining forces have planted them in a single year. * * * On November 1, 1917, after the barrage project had been finally and definitely adopted, the only parts * * * of the mine that had been completely designed were the firing mechanism and the mine case. However, the mine section of the Bureau of Ordnance, under the immediate direction of Commander Fullinwider, felt no doubt of its ability to complete a satisfactory development of the new mine, and to get it into production in due time.

Ordinarily it requires at least a year to prove out such a design before it is considered wise to put it into production. Judged by ordinary standards * * * the action of the bureau in bringing about the adoption of this grand project before there was any certainty of the efficiency of the new mine, thereby committing two Governments to very large expenditures was, to say the least, hazardous. The bureau accepted the hazard advisedly as the only thing to be done under the circumstances and yet knowing the odium that would attach in case of failure * * * (p. 3412). The problem confronting the bureau was to build a mine around an entirely new principle in mining and around a firing gear outlined but not perfected. The officers responsible for the mine freely admitted the certainty that the design would have to be modified more or less after service tests.

In another place we find the statement (p. 3388):

The tentative design of the mine had to be modified as a result of experiments and more mature study of the subject. * * * It was found, too, that the bureau had been too optimistic in its forecast relative to the early completion of the design and its early production.

In view of this official departmental statement of the real facts in the case, the Secretary's contention that I had anything to do with delaying the barrage needs no further comment. May I be allowed to express my extreme astonishment that statements so contradictory to the plain facts contained in official documents are made. They are hard to understand. The Secretary has attacked my previous testimony as to the impracticability of the department's proposals of April and May, 1917, because I did not base my objections on the ground that the antennæ mine had not yet been invented—of course,

I knew nothing of the antennæ mine at that time—but I did know that with the existing type of mine the plan was impracticable, as has been acknowledged by the department, as every informed person now admits, and that was all I said in 1917.

If the United States in going to war had had as its only object the laying of a mine barrage—if it had entirely dismissed from its consideration the desirability of winning the war, or the consequences of losing it, the country, by concentrating on the production of mines, might have produced the 750,000 mines of the old type, which the Bureau of Ordnance in April, 1917, estimated would be necessary for the barrage. If they had entirely disregarded the necessity of maintaining the allied lines of communication and had allowed England and France to be starved into submission by the success of the submarine campaign, they might very well have carried out the Secretary's contention and laid the mine barrage, or at least produced the material for the mine barrage, though in all probability this material could never have been transported to the North Sea and laid there. It is as impossible as it is absurd to contend, therefore, that in the light of the situation as it existed in 1917 the plan was at that time either practicable or desirable.

I may further state in this connection, that as is shown in the official reports on file in the Navy Department, and as has been formally acknowledged by the Navy Department itself, the mine that existed in 1917, called the Ely mine, had been condemned by the British and had been condemned by us as an unsatisfactory mine, so that even if at the expense of every other naval activity the Navy Department had been able to build 750,000 mines, and even to plant them in the North Sea, it would not have done any good because they would not have stayed there, and they would not have been effective if they had stayed there, all of which was thoroughly proven by the fact that they did not stay and prove effective in the narrow Strait of Dover and had to be abandoned in favor of an entirely new mine.

ROBBING THE NAVY OF CREDIT FOR THE BARRAGE.

In this connection the Secretary has accused me of trying to rob the United States of credit for "inventing" the idea of a mine barrage. Do I understand the Secretary to imply that it is a patriotic duty to claim credit for everything creditable done in the war and to deny responsibility for all mistakes and failures? Is it treason to give credit where credit belongs? As a Nation, must we have our self-complacency bolstered up by false claims? As a matter of fact, in the case of the northern barrage, the Admiralty had had proposals nearly two years before we entered the war for laying a barrage of mines across the North Sea. To any amateur looking at a school book map of the North Sea, this scheme seemed an absurdly obvious answer to the submarine campaign. But careful examination, in the light of all previous experience, showed that, with the mines available previous to November, 1917, the barrage was absolutely impracticable in view of the time and material required. The proposal of the department on May 11 was not a plan for laying a barrage.

It was a mere request to be informed whether such a barrage was at that time considered practicable.

Similarly, Admiral Mayo brought no plan for the northern barrage. The memorandum he furnished the Admiralty dealt only with various suggestions and proposals as to what the barrage should be. The first detailed plan for this northern barrage, of which I have any knowledge, was the one prepared in London in September, 1917, by the Admiralty plans division, in consultation with our own and other allied officers. It was this plan which Admiral Mayo took back with him to Washington. It had written upon it the request that the Admiralty be informed whether the Navy Department accepted the proposal or not. No decision was reached by the department until the end of the month. Then on November 1, I was informed that the department had approved the proposals contained in this plan. This same plan continued to serve as the basis on which the barrage was laid, though it was, of course, frequently modified in accordance with the lessons of subsequent experience.

Since these were the facts of the matter, I submitted them as such, believing it was my duty to tell you the simple truth, and not to claim credit for things our Navy did not do. On the other hand, I have fully and completely explained that the northern barrage was made possible only by the invention by the Bureau of Ordnance of the new type of mine. The development of this mine during the war was a magnificent achievement. To it alone was the barrage in reality due. Hence, although the suggestion for a barrage had been made years before, when the department proposed it (although the detailed plan followed was not drawn up by the department, for they did not have the data necessary for any such plan) the credit for making possible the barrage rests altogether with the officers in the Bureau of Ordnance who developed the mine, and with the department for realizing its possibilities and supplying the quantity of mines, the mine layers, and other material needed for the barrage.

But the laying of the barrage was not in any sense the single bold stroke that ended submarine warfare. The submarine had already been defeated in its mission of forcing the Allies to peace long before the barrage was laid, or even before it had been begun. The very possibility of laying the barrage depended indeed upon first mastering to a great extent the submarine. Only thus was it possible to transport the material needed overseas.

THE EFFECTIVENESS OF THE ALLIED ANTISUBMARINE POLICY.

It was, indeed, the time for bold and offensive action when we entered the war in April, 1917; it was, indeed, a time when motives of timid prudence and purely defensive considerations should have been subordinated to our principal mission of winning the war by striking the enemy on the sea as quickly and effectively as possible, in the way which the experience of the war showed would produce the greatest results. The Allies had a complete and consistent policy, or at least developed one, in 1917, which proved successful. It met the issue of overcoming the submarines; it made possible the victory. That plan was twofold; it consisted in the protection of merchant shipping by

the use of convoys and in offensive action against the submarines by the light craft assigned to convoy escort in the danger zone, and by the hunting flotillas built up as rapidly as possible and used in watching the narrow passages. These became increasingly more effective against the submarine as additional craft became available and listening devices and other apparatus became more effective.

The inability shown by the department to understand the situation and to take the action required did have, as its result, unnecessary losses. In so far as the department resisted the adoption of the policy which it ultimately accepted and carried into effect throughout the war (because of the desire for some royal road to victory), the department was wrong and misguided. But, as Admiral Benson, Admiral McKean, and Capt. Pratt have told you, they fully realized at the time that the only way to meet the submarine was by the methods which were actually used. Once they came to this decision the co-operation of the Navy Department with the Allies gradually became effective.

The mine barrage could not have been laid sooner than it actually was, because the mine which made it possible had not been invented at the time. And it was only natural, in view of the situation so clearly explained in the Bureau of Ordnance's official summary, that every professional expert should hesitate to place his whole hope on defeating the submarine in a measure which was, even in November, 1917, when the northern barrage project was adopted, as yet only experimental.

ADMIRAL BENSON'S ATTITUDE TOWARD THE NORTHERN BARRAGE.

This is probably the explanation, for example, of the attitude which Admiral Benson himself took toward the mine barrage. Admiral Mayo had brought over from the department in the early part of October the definite plan for the northern mine barrage. It was upon this plan and not upon any earlier memorandum or suggestion that the barrage was ultimately laid. On November 1, while Admiral Benson was on the high seas en route to England, I received the message from the Navy Department informing me that the northern barrage project had been officially approved. Admiral Benson, on arriving in England and learning of it, sent the following message to the department:

[Cablegram sent Nov. 8, 1917. Opanav Washington. Serial No. 1341. Bal. Very secret.]

1341. Your 925. From Benson. My understanding with Secretary and Operations was that no decision on mine barrier project would be made until after I had arrived here and discussed subject with Admiral Jellicoe and Admiral Sims. Operations' action in sending 925—

The number of the cable—

has embarrassed me very decidedly. During remainder my absence send all departmental decisions involving policy to me before sending them for transmittal to Admiralty. Consider that 925 should not have been sent until after I had arrived here and been informed 19208.

SIMS.

I just want to call attention to the fact that the cablegram is from Benson, signed Sims. They went through my office.

On the following day, he sent another message to the department, in which he said:

NOVEMBER 9, 1917.

1342. From Admiral Benson. Called on Geddes. Had long conference with Jellicoe. All fully convinced practicability and desirable to lay North Sea barrier if shipping for handling material can be spared. Have assured them we will do our part.

Thus the whole of the Secretary's contentions concerning the bold and audacious policy which he favored reduces itself to this: That the department, in the early months of the war, knowing little or nothing of the war experience of the Allies, were obsessed by a desire to astonish the world by doing some new and unheard of thing, by discovering the "royal road to victory;" in the desire to do this, they proposed two plans in April and May, 1917, both of which were impracticable and both of which the department itself later admitted to be impracticable; and in thus concentrating upon an endeavor to find the end of the rainbow, they postponed the effective intervention of our Navy in the war for a number of months, and thus contributed to the postponement of the ultimate victory.

It therefore seems clear that this is one of those cases of misrepresentations of fact into which the Secretary, as a civilian, has fallen, because of his failure to understand certain very simple technical considerations. It is hardly a defense of the department's delays in 1917 to say that they did not do what they could have done because they hoped that they might ultimately be able to do very much better. It is not enough to declare one's allegiance to a bold and audacious policy. It is necessary also to meet the crisis of a war in such a way as to make possible victory. No war policy is of any value unless means are available for carrying it out immediately and effectively.

PERSONAL ATTACKS AND REFLECTIONS BY THE SECRETARY OF THE NAVY.

The questions of personalities:

I have endeavored, as far as possible, to eliminate all personalities from my testimony. I regret that the Secretary considered it necessary, in attempting to refute my official criticisms, to enter upon a general attack against my personal character, my ability and credibility as an officer, and my loyalty to my country. I have no intention of attempting to answer the numerous reflections made upon me throughout the Secretary's testimony. I desire merely to invite your attention to the nature of these attacks, as recorded in the Secretary's testimony, and to compare the opinions he now expresses with the opinions he expressed about one year ago concerning my character and services.

A review of these personal attacks shows that they can be divided into three parts:

First. Purely personal attacks.

Second. Criticisms and reflections upon my official actions.

Third. Attacks upon my motives and a questioning of my loyalty to my country, combined with charges that amount to little less than treason.

The Secretary's opinion of my personal character:

In dealing with my personal character, the Secretary has accused me, directly or by unmistakable implication, of being indiscreet, of being actuated by all kinds of ulterior motives, of being insubordi-

nate, consciously and deliberately, of having endeavored to deceive the department and the President, and, finally, of being at least an accessory to a forgery.

On page 4738, the Secretary of the Navy referred to my criticisms made a number of years ago of the design of battleships we were then building, as "the scandalous charges spread broadcast at the time."

On page 4789, the Secretary testified that he regarded me as actuated by "rather a love of glitter and foreign recognition and honor than anything else." On page 4792, he speaks with regret of having, in 1917, forgotten my previous indiscreet speeches and actions. He states that in this investigation I have (p. 4793) "erected a towering structure of exaggeration and misrepresentation." He referred (p. 4794) to the "wantonness" of my charges, and states that he was "shocked at the idea that a naval officer could be guilty of such a breach of confidence" as my letter revealed.

In commenting upon my refusal in December, 1917, to declare that the Navy Department had done everything they could do, the Secretary accuses me of deliberately attempting to deceive the department. I had replied that, in answer to my requests for forces, personnel, etc., the department had always replied that they were sending everything available. The Secretary implies that this was a deception and that because I failed at the time, in the stress of war, to state the actual circumstances concerning the situation, because I felt that it was my duty as an officer to accept during the war, in all loyalty, the decisions of the department, the Secretary says that I now "propound a new doctrine of deception"; that I consider it justifiable and proper to deceive my superior officers. The Secretary adds, "He certainly did this" (p. 4830).

Similarly, the Secretary, in referring to my reply to the President's message, in July, 1917, said:

This is the most remarkable of the abundant evidence that Admiral Sims was so hypnotized by British influences that he was willing to try to lure the President of the United States into the feeling that, "regardless of any future developments, we could always count upon the support of the British Navy." * * * It is to be hoped that if Admiral Sims has such assurance, he will send a copy of the pledge in writing with the name of the important Government official appended thereto, to be filed in the archives "of sops for the simple."

The Secretary has similarly stated that I had "a mind that genuflected to British views."

He stated also (p. 5092) that I have "a spirit of pride in continued insubordination to authority," with which he was unfamiliar when I was sent to London. He then said: "If I had fully understood and properly assessed his past attitude and conduct with respect to the highest spirit of loyalty, he would not have been sent."

THE IMPLIED CHARGE OF ALTERING A SIGNATURE OF AN OFFICIAL MESSAGE.

Not content with accusing me of merely moral turpitude, the Secretary implied that I was guilty of, or responsible for, a forgery. Thus he stated:

Somebody was guilty of signing my name to an original dispatch which the original here shows I had never signed, or of altering a dispatch by erasing a

real signature and substituting "Daniels." You can imagine my indignation when this false signature was spread broadcast over the country in the sensational press stories of the hearings. * * * The perpetrator of this attempt to fix upon the civilian Secretary of the Navy a telegram signed by another official ought to be produced by Admiral Sims, who produced the altered telegram, and who owes an apology to me and to the country for the impression undertaken to be made by his testimony based upon a false signature.

As I have already informed the chairman of this committee, the circumstances are as follows, being contained in a letter which I wrote to the chairman of the committee on May 14.

The CHAIRMAN. Admiral Sims, you will recall that on receipt of this letter I called you up on the telephone and asked if you wanted to have the letter introduced in the record at that point or whether you would not rather wait and bring the matter out when you came to the committee, and you replied that the second course was the one you preferred.

Admiral Sims. Yes; I understood it that way.

MAY 14, 1920.

MY DEAR SENATOR HALE: I have noted by the press of last night and this morning that Secretary Daniels states in his testimony that the telegram which I quoted in my testimony as follows:

"In regard to convoys, I consider that American vessels having armed guards are safer when sailing independently," was transmitted through the British Embassy in Washington and signed "Opnav" (Office of Naval Operations), "A. F. Carter, by direction of Chief of Naval Operations."

In regard to this incident, I can only say that at the time of the receipt of this telegram I was at Queenstown, and the message came to me from the Admiralty, over their own wires and in their own code, and was signed "Daniels." I have a copy of this telegram, which was made by the historical section of the London headquarters, and I quote below exactly the text as it was transcribed. These historical files have been in the Navy Department for about a year and must contain the original, of which the following telegram is a carbon copy:

11-1-1

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No. 498

20/6/17

TELEGRAM.

From: Admiralty.

To: Commander in chief (of the Irish station).

498. Following for Admiral Sims: There will be no additional movements before August of troops. You will be furnished fully with information as to sailing of Army supply ships as far as possible in advance, and the actual sailing, intended route, and probable dates of arrival will be reported. We hope to sail four Army supply ships, now fitting out, in about 10 days' time. The 32 destroyers, which are all that there are available, have sailed. One hundred and ten-foot chasers which are to be sent to France should begin to deliver in August. Fishing vessels, 12 in number, will sail in August for France. There are no other small craft available at present, although work on yachts is being pushed, probably ready 15th July. In regard to convoy, I consider that American vessels having armed guards are safer when sailing independently.

DANIELS.

Continuing the letter:

I have no means of verifying the signatures of the numerous official messages signed "Daniels" submitted to the committee. They are all authentic copies from the official archive of my organization abroad during the war, and which are probably now in the department's historical files. From an examination of such records as are now in my possession, it appears that the

majority of the messages received by me during the early months of the war were similarly signed "Daniels."

The Secretary has apparently wholly misinterpreted my testimony, as I had no other thought in mind than to convey that the dispatches submitted as evidence originated with an organization, and not from any particular individual of that organization.

I took particular pains to explain this fact very carefully in my testimony. See pages 647-648 of my testimony of March 18, 1920, as follows:

"In no part of my testimony have I charged the responsibility for any of the failures enumerated against any person, but I have tried to make it clear that the responsibility for these failures rests, in my opinion, upon the Navy Department as an organization rather than upon any individual. If any individual was responsible, wholly or in part, for the failures I have pointed out, the fact would necessarily have to be developed by persons who were in a position to know the inner workings of the department during the period in question."

"My official knowledge extends only to the doors of the department and not beyond them. The fact that numerous letters and cable dispatches which I have submitted in evidence bear the signature of this or that person is not to be taken as an indication that I believe the signer personally responsible for the action indicated. They merely indicate that the letter of dispatch was official and written with the authority of the Navy Department as an organization."

It should be particularly noted that in many other important instances the Secretary is glad to claim authorship for messages similarly signed "Daniels," although they did not originate with him, but in one of the offices of the department.

This point illustrates the necessity for my recommendations as to new legislation in order to avoid in the future any confusion or vagueness as to responsibility in connection with questions of a strictly military nature.

Very sincerely, yours,

WM. S. SIMS.

Rear Admiral, United States Navy.

Senator FREDERICK HALE,

1001 Sixteenth Street NW., Washington, D. C.

I do not know in that letter where I said that most of the messages that reached me were signed "Daniels." In that period of the war almost all messages of a confidential nature came to me through the British Admiralty because at that time we had developed no naval codes in which we had reliance. We were afraid that they had gotten out, and therefore all the messages were sent through the British code and the British Admiralty.

CHARGE OF DISLOYALTY TO THE DEPARTMENT.

In his testimony the Secretary has also implied that I was guilty of disloyalty to the department. In illustration of this he produced a letter from my personal files, written by me to Admiral Bayly on September 24, 1918. Let me say in this connection that at the time the department directed the establishment of a historical section in the forces overseas, I permitted the historical section to go through my personal files and to make copies of such letters as bore upon naval operations.

I also permitted those letters to be sent in, and I never looked them over at all, simply trusting that they would pick out the right ones. As I have already stated before this committee, many of these letters were purely personal communications with my friends in the American service and in allied services. Many of them contained the kind of personal comments and remarks on the situation which one very often makes to friends, and which have not the slightest official char-

acter or significance. It was my understanding at the time that these documents were to be considered confidential and used only by the historical section as the basis for future investigations into the history of the war. It seems to me hardly necessary to invite attention to the misuse of this personal correspondence, and the violation of my confidence in the department by the publication of many of my personal letters to foreign officers in the testimony of the Secretary of the Navy and other witnesses before this committee. Not only is it unfair to me, but it is extremely unfair to the foreign officers.

In referring to one statement that I made in this letter of September 24, 1918, to Admiral Bayly, Secretary Daniels quoted the following paragraph from my letter:

There is no doubt at all that the principal dignitaries at home are very nervous lest some of our troop transports be torpedoed. Of course, you understand that this nervousness is largely of a political kind.

The Secretary then commented:

An attack upon the American Government in a letter to the British admiral that because we wanted to protect the lives of our 2,000,000 soldiers, it was political. If I had seen that letter, gentlemen, I should have ordered him home by wire and put him under court-martial.

Of course, it is unnecessary for me to add here that, as I have told you so many times, my chief anxiety while in Europe was the responsibility which rested upon me for the safeguarding of these American troops in transit through the submarine zone. The fact that the forces under my command did succeed in escorting most of our 2,000,000 troops to France without the loss of a single man is a sufficient answer, I think, to any comment or criticism to the effect that I did not provide adequate protection for them. Certainly a personal comment which I might have made to a friend in a personal letter with regard to the cause of the nervousness of certain officials in Washington was not in any sense of the word an attack upon the American Government or, in fact, an attack upon anybody at all.

REFLECTION UPON MY OFFICIAL ACTS AND SERVICES.

In addition to these more or less personal criticisms by the Secretary he has presented what, if his charge be true, constitutes a formidable indictment against my ability as an officer and against my services abroad. But in doing this he necessarily makes a still more formidable indictment against himself, that of permitting an officer of the kind that he represents me to be to retain for a year and a half after he himself had knowledge of my alleged character (which he admits in his testimony) to retain the command of our naval forces on the fighting front and continue responsible for the safeguarding of the transport of our army overseas.

In substance the Secretary says that I was continuously hypnotized and obsessed by British influences; that I opposed the department's policies consistently and favored the British merely because they were British and not American; that I was practically insubordinate and disobedient in refusing to carry out the department's instructions; that on one occasion Admiral Mayo had to be sent abroad after I had failed, upon being given explicit orders by the department, to discuss certain proposals with the British Ad-

niralty. On another occasion he accused me, by making use of only a partial quotation from one of my letters, of wanting to turn over our Navy to the British Navy. He has declared that I failed to realize the necessity for the protection of troops, and placed a higher value on merchandise than on lives. He has implied that I was more interested in the administration of our naval forces abroad by a desire for foreign honors and recognitions of various kinds than I was for the efficient discharge of my duties as a commander of the American forces at the front. He has declared that I not only opposed all policies originated by the department but that I originated none of my own.

For example, in beginning his statement, the Secretary of the Navy said (pp. 4784-4788):

In the face of a great job greatly done, it is a matter of national regret that any naval officer should, for any reason or any motive, seek either to minimize it or to cast aspersions upon the splendid work done by brother officers in or out of the department. I confess to surprise and regret when Admiral Sims made public the letter which was the occasion of your hearings. During the conduct of the war, in several important particulars, I felt he did not wholly measure up to expectations in certain particular ways, of which six may be mentioned:

1. He lacked the vision to see that a great and new project to bar the submarines from their hunting grounds should be promptly adopted and carried out, no matter what the cost or how radical the departure from what ultra prudent men regarded as impracticable.

2. He seemed to accept the views of the British Admiralty as superior to anything that could come from America, and urged those views even when the Navy Department proposed plans that proved more effective.

3. In public speeches and other ways, he gave a maximum of credit to British efforts and minimized what his country was doing.

4. He coveted British decorations and seemed to place a higher value on honors given abroad than by honors that could be conferred by the American Government.

5. He aspired to become a member of the British Admiralty and wrote complainingly when the American Government declined to permit him to accept such tender by the King of England.

6. He placed protection of merchant shipping, with concentration of destroyers at Queenstown, as the main operation of our forces abroad, failing to appreciate that the protection of transports carrying troops to France was the paramount—and, I wish to emphasize, that was the paramount—naval duty until I felt impelled to cable him peremptorily that such was our main mission.

The first of these points I have already dealt with in discussing the policy followed by the Allies and the particular plans recommended by the department referred to by the Secretary of the Navy.

With regard to the second point, it is only necessary to say that in those cases where I accepted the views of the British Admiralty, those were views arrived at, or agreed upon, by the responsible allied officers in the war zone who had extended experience in the kind of warfare that we had to wage. The Navy Department has failed to reveal any plans which they put forward which were more effective than the plans and policies which were carried out by the Allies which succeeded in winning the war.

With regard to the third point, I have already stated repeatedly that in my speeches and writings I have merely given a correct account of what happened. During the war, the part played by the British Navy was vastly greater than that of any other allied navy. It was the British Grand Fleet which contained the German High Seas Fleet. It was the British Navy which provided the greater portion of all convoy escorts and all antisubmarine forces in the

war zone. The number of our own forces abroad was very small in comparison.

Does the Secretary, then, regard a mere statement of truth a desire to minimize what my own country was doing? Does he believe that a mere statement of the proportion of the allied naval effort contributed by the British Navy is a reflection upon our own efforts? I can not otherwise understand his criticism. No one has disputed, or can dispute, the essential facts in the case. All have agreed that our efforts were not as great as those of the British. That is all I have ever said. I have not considered it necessary, in order to praise our own service, to condemn nor criticize another; and if that be my fault, I shall make no apologies for it.

With regard to the fourth point, and in spite of the fact that I am on official record as opposed to all decorations, the Secretary stated that he regarded my desire for British decorations and honors as due to a love of glitter and foreign recognition more than anything else, and consequently tolerantly passed over the matter. In this connection, let me say that, in the Secretary's testimony, his charge that I desired British honors, etc., is based upon three things:

First. Upon my recommendation that our own officers serving in the war zone who destroyed submarines or performed other meritorious services should be allowed to receive the same decorations from the foreign countries with whose navies they were serving, as would be given to the officers of these foreign services for the same creditable acts. At that time our own department had worked out no suitable recognition for distinguished and heroic service. Our officers and men were serving alongside of allied officers and men who were receiving decorations from their own Governments. It naturally did not contribute to the morale of our own men to see the foreign officers and men receiving recognition for achievements which were no more splendid than those of American personnel. I therefore recommended a policy which was ultimately followed by all the American military services, that is, that our officers and men serving in the war zone should be permitted to receive allied decorations for distinguished and heroic conduct.

It might be added that at no time did the department ever provide for the adequate recognition of the services of these men and when the medal awards were finally announced last December, the service discovered, to its consternation and indignation, that being sunk by a submarine was considered as splendid and heroic an act as sinking a submarine. Another interesting fact may also be related in this connection. Although the British Admiralty was not permitted by the department to recommend American officers for the same decorations which they were giving to their own officers in the same areas, still letters of commendation were sent by the British Admiralty through me to these officers, stating, in effect, that if the department had permitted it, these officers would have received the distinctions which they had earned. These letters were sent to Washington with a recommendation that they be attached to the official records of these officers. At a later period they were chagrined and dismayed by being informed by the Bureau of Navigation that, by departmental order, all foreign citations for distinguished service or heroic conduct were being removed from their records. The order created so much indignation in the service that the order was finally rescinded.

It therefore could hardly be said that in endeavoring to obtain suitable recognition for the gallant conduct of our own men in the war zone I was guilty of any desire for the glitter and glory or foreign recognition for myself.

The second point that the Secretary has raised was that I myself accepted a decoration from the King of England. The circumstances have been fully communicated to you in the documents the Secretary himself published. Congress, by legislation, provided in July, 1918, that American officers and men serving abroad in the war zone could accept foreign decorations. I was at once informed by the department that this legislation had been passed, and upon the occasion of the visit of the House Naval Committee to London, and of their reception by the King, I was summoned to Buckingham Palace without previous warning and the decoration was handed me personally by the King. I did not regard this as any personal recognition, as it has always been customary among great nations to bestow adequate official recognition upon representatives of other countries, and particularly of allied countries, within their borders, and I regarded this decoration as a form of international courtesy and as a compliment to the service to which I belonged.

In passing, let me invite attention to the fact that personal decorations mean so little to me that I have never worn the ribbons which indicate the receipt of any decoration, and I have officially stated my objection to any decorations whatever, and that is in official communications to the Navy Department.

The third point upon which the Secretary makes this assumption is that my dearest ambition was blasted when the department would not permit me to accept an honorary membership of the British Admiralty Board. In this connection let me refer briefly to the testimony of Admiral Benson before this committee. Admiral Benson said that when he went abroad in November, 1917, he found that I was not then attending the daily meetings of the officials of the British Admiralty. As this council reviewed daily the whole naval situation in the waters about the British Isles, and as our forces were becoming an ever greater contribution to the allied naval effort in those waters, it occurred to Admiral Benson that it would be a good thing for me to attend these meetings at the Admiralty. In his testimony he said (p. 4627):

I asked him [Admiral Sims] if he attended the daily meetings of the British Admiralty, and he said no, but he would like to do so. I arranged all those details for him.

In another place Admiral Benson said that while in London he discussed with the Admiralty the question of establishing a planning section to work in cooperation with the Admiralty section, and that he took up this actively (p. 4660)—

just as I did the question of allowing Admiral Sims to attend the daily meetings of the British Admiralty, which Admiral Sims said that he would very much like to do, and I immediately took it up with Admiral Jellicoe and Sir Eric Geddes, and they were not only willing but very glad, indeed, to have it done.

Subsequently, very much to my surprise, Sir Eric Geddes, the First Lord of the Admiralty, which corresponds to that of the Secre-

tary of the Navy in our country, informed me that the British Government wished to associate our Navy Department with the Admiralty by making our naval representative an honorary member of the Board of the Admiralty, and that he hoped that our Government would consent to this. The matter was discussed in the presence of the First Sea Lord, Admiral Wemyss; the Chief of the French Naval Staff, Admiral de Bon; and the Chief of the Italian Naval Staff, Admiral di Revel; and Admiral de Bon said that if the United States Government would approve, the French Ministry of Marine would doubtless make the same offer.

This offer, which was intended as a courtesy to the United States Government and its Navy, and as an expression of appreciation for the services of the latter, was duly transmitted to the Navy Department, and by the British Government to our Government, after the formal approval of the King had been obtained.

Doubtless the committee will realize the embarrassing position in which I was placed when our Government declined this courtesy. Subsequently the King expressed his regret to me; and, as a matter of official duty, this was reported to the Navy Department, with an explanation of the embarrassing position in which I had been placed and of the advantages in the way of cooperation of attending the meetings of the Admiralty Board.

The difference between the Admiralty Board and the other assemblies there is quite marked. The Admiralty Board consists of all of the Lords of the Admiralty, that meet on certain stated occasions to discuss plans and policies, etc. The board that I spoke of at first, the meetings of the Admiralty, were those held in the chief of staff, or the First Sea Lord, with all of his immediate Sea Lords.

If the Secretary interpreted this presentation of the case as an expression of a desire for the glitter and glory of foreign recognition and honors, I am perfectly willing to leave to you the decision as to whether his interpretation or mine is warranted by the facts.

MISREPRESENTATIONS WITH REGARD TO TRANSPORTATION AND PROTECTION OF TROOPS.

I would invite special attention to this. The statements and implications of the Secretary of the Navy with regard to my attitude toward the protection of troops in the danger zone are characteristic of the kind of misinterpretation and misrepresentation into which the Secretary has, unfortunately, so often fallen in his attempts to deal with technical military matters, which he does not understand. For example, in the sixth criticism of my services abroad, which has been quoted above, he declares that I failed to appreciate that the protection of troop transports was my paramount duty until he (the Secretary) had cabled me peremptorily that this was my main mission. I invite the committee to try and imagine an officer who was responsible for the safety of our troops failing to appreciate the necessity for protecting them.

Running throughout the Secretary's statement is the repetition of this assertion. For example, on page 4789, he refers to my "one idea, and controlling idea, of carrying on the war by putting all our destroyers at Queenstown, giving priority to protection of merchant

ships over that of troop transports." Again, on page 5079, the Secretary of the Navy, in referring to the question of transportation of troops, said:

The great machinery of troop transportation, the cruiser and transport force, was initiated by the Navy Department, built up, organized, and operated not by Admiral Sims, but by other officers not under his command. His duty in this connection consisted solely in arranging routes and providing escort vessels through the submarine zone, and in the performance of this latter and vitally important duty he had to be reminded time and again by the department.

Note the expression, "He had to be reminded"—

Bear this in mind now, gentlemen, with reference to the duty of protecting American troops in transport through the submarine zone, Admiral Sims had to be reminded time and again by the department that the paramount duty of our destroyers, with which nothing must interfere, was the fullest protection of ships carrying American troops.

In this same connection the Secretary also said (p. 5131):

The Navy Department, from the moment it was intrusted with this task, regarded the protection and successful operation of these troop ships as its highest duty. Regarding human life as more valuable than supplies, I do not share the view of Admiral Sims that the escort of cargo ships was quite as important as the protection of vessels carrying troops.

And on page 5133:

I found it necessary, soon after troop transportation began, to remind him sharply that the first duty of American destroyers in European waters was to protect ships carrying American troops. I could not conceive that an American admiral, charged with such high responsibility, could regard supplies as of more value than human life, and cargo vessels more important, for any reason, than ships carrying American troops.

Again, on page 5206, the Secretary said:

If I had believed, Mr. Chairman, that Admiral Sims cherished any such idea; that he valued supplies more than the lives of American soldiers; that he was willing to endanger troop transports in order to save cargo ships, he would have been instantly removed from command.

In my personal opinion the Secretary has overdone it. I will say, however, that the allegations, statements, and implications are without exception false to the last degree, as is shown by the record. It would be wholly impossible even to imagine any person in the condition of mind which he tries to depict me.

These instances that I have quoted are only a few of the many similar statements found throughout the testimony of the Secretary. There are certain considerations in this connection that should be made perfectly clear.

At the time I went abroad and our forces began to arrive in European waters, no troops were being sent from the United States to France, and the primary mission of the vessels in the early months, before the troop movements began, was necessarily the protection of merchant shipping and offensive operations against enemy submarines. As soon as I was informed that troop movements were about to begin, I made every effort to induce the department to draw up adequate plans to insure the protection of the transport of these troops. As I have already told you, the first troop convoy was sent to France on plans drawn up hastily in Washington, without con-

sultation or consideration of allied war experiences, and in consequence the first troop convoys narrowly escaped disaster. In my letters and cables at the time I pointed out to the department, in the strongest possible terms, the necessity and importance of adequately protecting American troops on the high seas. The department finally requested me to submit full plans for the handling, routing, and protecting of troop convoys through the war zone. These plans I drew up. They were accepted by the department, put into operation, and throughout the remainder of the war governed the whole of our troop transportation in the war zone. At no time were any of our troop transports, escorted by American forces, successfully attacked by submarines.

This shows that in no case was the protection afforded them inadequate. The disposition of our naval forces in European waters was made by me, and all our plans and arrangements for handling troops were made—note this particularly—before I received any of the admonitions which the Secretary said he had to send to me as peremptory orders. Not a single one of the plans that had been made, not a single detail in the disposition of forces, not a single detail in the convoy operations, was changed in the slightest degree as a result of or after these so-called peremptory orders were received from the Navy Department, and this for the simple reason that it was unnecessary that any such changes should be made. The arrangements that had been made were adequate, as was amply demonstrated by the results. Only four or five convoys were attacked, no torpedo ever touched a loaded transport, not a single soldier was lost under the protection I gave them.

I, of course, realized at the time that these messages were simply the usual result of nervousness in official quarters, the result of the inevitable misunderstandings and misconceptions of the naval situation at the "front."

In repeated letters to the Navy Department, which I have read you, and to officers in the department, in June and July, 1917, and at later dates, I called attention to the fact that my primary duty was the protection of American troops, and that the forces under my command had received instructions based upon this mission. Not only was there never at any time any question in the forces in Europe as to this primary mission, but you will find it clearly defined in my instructions to my subordinate commanders. The messages of the Secretary, inspired by a natural anxiety, due to a lack of knowledge of the situation and the dispositions which had been made, were therefore wholly unnecessary. No further action in any event could have been taken than the measures already in operation.

Throughout the war, and since the war, and during this testimony, I have never stated that I considered that merchandise was of more value than human lives, nor have I ever stated that I considered the protection of a merchant ship to be more important than the protection of a troopship.

As a matter of fact, the plans for the convoy and protection of troops in the war zone were all drawn up at my headquarters in London. The routing of all these troops were handled, either directly by my staff in London or by Admiral Wilson at Brest, acting under my general direction. The Secretary himself has told you

how successful were the efforts of the forces under my command and thereby refutes his contention that troops were not adequately protected. On page 5130 he said:

The carrying to Europe and the bringing home of 2,000,000 troops of the American Expeditionary Force has been justly termed the biggest transportation job in history. They had to be transported 3,000 miles through submarine-infested zones, facing the constant menace of an attack from an unseen foe, as well as the perils of war-time navigation. Yet not one troopship was sunk on the way to France, and not one soldier aboard a troopship manned by the United States Navy lost his life through enemy action. That achievement had never been equaled. It was not only the most important but the most successful operation of the war. The Germans never believed it could be done. * * * The sinking of our transports would have been the most telling blow the Germans could have dealt the Allies, the greatest victory of their submarine warfare.

That they failed to sink a single allied United States troopship and sank only three ships of other nationalities carrying American troops was not due to any lack of intention or effort, but to the fact that we gave our troopships such sufficient protection that it was almost impossible for the U-boats to sink them.

And that efficient protection was given by the disposition I made of the forces before the admonitions were received from the Secretary, and these dispositions were never in any degree changed. All people who have any historical knowledge of warfare know that you must make a separate file at the front for what you call neurasthenic telegrams, and you must be responsible for your actions in all cases.

This success was the result of the disposition of forces I made for the protection of our troops, and this disposition was not changed. With regard to the Secretary's statement that I had to be repeatedly reprimanded in a similar way throughout the war for failing to realize the necessity of protecting troops, let me say that the two nervous messages quoted by the Secretary, one in July, 1917, the other in May, 1918, were the only messages of this character that I ever received.

THE DEPARTMENT'S FAILURE TO RECOGNIZE NECESSITY OF PROTECTING MERCHANT TONNAGE.

There is another aspect to the situation which has been similarly misrepresented. Previous to the 1st of April, 1919, the number of troops sent from America to Europe had amounted in all to only about 300,000 in a year. It had taken nine months to get these 300,000 men to Europe. There were seldom more than two or three troop convoys each month on an average during these nine months. While it was always recognized that it was the paramount mission of the forces overseas to protect these troops while en route through the war zones, other considerations could not be neglected. These convoys during these nine months were always fully protected.

At least three times as many destroyers, per vessel escorted, were assigned to duty of escorting them then were ever assigned to any merchant convoys, although the merchant convoys usually had from 5 to 10 times as many ships as the troop convoys. No troop transport was sunk during this period while en route to France.

It should be unnecessary, however, to state again that the submarine campaign against merchant tonnage constituted, at this

time, the greatest threat to the allied cause. If sufficient merchant ships had been sunk by the submarines in 1917 the Allies would have been forced to make peace, and all of the American effort would have been in vain, so far as assisting the Allies was concerned. Therefore, while it was important—and all important to protect the American troops—it was also vitally important to protect the merchant shipping which was carrying supplies and war materials for these troops, for the troops of the allied armies, and for the civilian populations of the allied countries. My problem was not only to protect American troops but also to safeguard, so far as I could, the allied lines of communication.

The forces were consequently so located, in 1917, as to give the maximum possible protection of merchant convoys as well as to troops. Our destroyers escorted 10 merchant convoys for every troop convoy during these early nine months, before our troop movements really began. Without the assistance they gave it is very probable that the allied countries would have been forced into an unsatisfactory peace.

This was, throughout 1917, the Allies' greatest anxiety. The repeated statements that I received from the department indicated that they were considering, not the protection of the whole of the allied shipping, but were concentrating their efforts in protecting American shipping alone. They seemed constantly to fail to realize that our Army in France, and the cause for which we were fighting, was dependent upon the whole of the allied shipping. At this time, in 1917, the American shipping in the war zone was only a very small part of the whole of the allied shipping. Any protection to American ships, however adequate, would not therefore have saved the Allies, if the measures adopted had not protected also the whole of the allied shipping.

The criticisms of the Secretary of the Navy of my attitude in this regard are in reality a condemnation of the attitude which the department took at that time. I realized to the full, just as thoroughly as any official in Washington, the necessity of giving our troopships priority over all other vessels in the war zone in the matter of escort, and they were given this priority. I also realized, what the department seems to have failed to realize, and what the Secretary in his testimony completely ignored, and that was that we were not fighting the war alone, that our cause was inseparably bound up with the cause of the Allies, that the defeat of the Allies might very well have involved our defeat, and that the only means of insuring an allied victory was to maintain and protect their overseas communications, their supply lines, as well as our American troop transports. Consequently, the forces under my command, during the first nine months, were engaged most of the time in protecting these supply lines, not because they were neglecting the protection of troops, but because at this time our troop convoys were so few and far between that if our forces had been reserved for the protection of them alone, it is very probable that the Allies would have been defeated or forced into an unsatisfactory peace before the American effort on the western front could become effective. Too much stress can not be laid upon this point.

ATTACKS UPON MY LOYALTY TO MY OWN COUNTRY.

The Secretary has claimed that during the war I was so pro-British that I failed to safeguard American interests, belittled the activities of the American Navy, accepted everything British without question, was hypnotized by the British, had a mind which genuflected to British views, and failed in loyalty to my own country. Reflections of this sort appear so often that it would be useless to collect together the quotations. Curiously enough, the Secretary has not seen fit to point out the fact that during the war I was also pro-French and pro-Italian.

I may state that this is not the first time that I have been accused of being pro. I once served for four years as naval attaché in France, and it took me a long time after coming back to the American end of the Navy to overcome the idea that I was pro-French. An officer said to me, "If you go down the street the newsboys would come out and offer to sell you the *Petite Journal*, because you do not look like an American officer."

Why should he choose to emphasize my lack of neutrality during the war toward one of the Allies and fail to refer to my equal lack of neutrality for the other European Allies I fail to understand. Doubtless he has good and sufficient reasons for going to such lengths in his attacks upon me because of what he considers my pro-British activities.

No single instance has been brought out in which my so-called pro-British tendencies operated in any way to influence my judgment against the interests of the United States. As I have already shown you, the charge that troops were not adequately protected is baseless and absurd, as the Secretary's own words show. The fact that the British happened to have the greater part of the allied merchant tonnage under their flag and that our forces were engaged in protecting British merchant tonnage is of importance only because during the war this British merchant tonnage was in the allied service and formed the major part of the allied lines of communication. To have failed to protect it with all the means at our disposal would have been a treachery to the whole of the allied cause, and I think that no serious or honest American will question for a moment the policy which was followed throughout the war in this regard, not only by myself, but by the Navy Department as well. Most of the other charges of the consequences of my alleged pro-British feelings fall to the ground of their own weight when examined. For example, my desire for the glory and glitter of foreign decorations, my genuflection to British views, etc.

Inevitably, as the British Navy formed the greater part of the combined allied naval forces, they were the leaders of the allied navies. Their forces were so much larger in number in the war zone than those of any other nation that naturally their views and experiences were of more importance than were those of any other one of the Allies. The department itself recognized this in sending their representative to Great Britain, and at no time has there been any disposition to question the fact that in order to gain the full benefit of war experience it was necessary for us to work as closely as possible and in complete harmony with the British service.

This was all that I endeavored to do, and it seems strange to me that at this date the Secretary of the Navy should consider it necessary to attack me for what during the war he apparently considered one of my greatest virtues—that is, my ability to cooperate with the allied navies, and particularly the British Navy, in facing the problems presented by the war on the sea. For example, the Secretary of the Navy on the 22d of July, 1919, less than a year ago, addressing the House Committee on Naval Affairs, said—this is a strain upon one's modesty even to have to read it:

In the anxious days before duty led the United States to enter the World War, when it was decided to arm merchant ships, the President determined to send to Great Britain a naval officer of high rank and of approved ability to represent our country. He selected for what was then a delicate mission, as it was all during the succeeding months an assignment that called for a man of quickness of grasp, mastery of his profession, and ability to sit as the equal in any conference of the naval leaders of the free nations. The country approved the selection of Rear Admiral William Snowden Sims. He had already shown the qualities which made his mission not only of the greatest service to his own country, but which brought allied navies into warm fellowship, as well as in close cooperation. He was at once welcomed into the conferences of naval leaders, and during the whole war was recognized among our allies, as well as by his own countrymen, as one of the ablest and most brilliant naval officers in the cause that demanded initiative, understanding, and a comprehension, which included among others the hard duty to safeguard the carrying of millions of fighting men across the seas and to defeat the submarine menace.

It is a matter for national gratification that in Rear Admiral Sims America sent as commander of the United States naval forces operating in European waters an officer who served the world with such conspicuous ability as to win the confidence, the approval, and also the sincere admiration of the world. He has been given the highest honors by foreign countries which appreciated his rare accomplishments. He was promoted during the war because of his high merit successively to vice admiral and admiral, and it is just that this highest rank shall be conferred upon him by his countrymen, and that it shall be a decoration for life, of which his children may be proud.

If it would serve any useful purpose, it would be possible to collect a dozen similar quotations from the public addresses, annual reports, and various other papers of the present Secretary of the Navy. At no time were any of these criticisms which he has presented to you expressed or even implied in his public statements until he gave his testimony before this committee on the subject of medal awards last February.

VIEWS OF THE SECRETARY OF THE NAVY ON THE WAR SERVICES OF THE BRITISH NAVY.

I regard it as singularly unfortunate that in endeavoring to discredit me the Secretary of the Navy should have considered it necessary to reflect upon the war service of the British Navy, or to make a scarcely veiled attack upon Great Britain. I regret it, especially, in view of the fact that in his testimony he makes the rather astonishing statement that one of his chief criticisms against me is that *I* have endeavored to disturb the friendly relations with Great Britain. I have taken the privilege of putting that "*I*" in italic.

On page 4841 of his testimony, the Secretary of the Navy, under the heading, "Sims's attempt to disturb our friendly relations," states that it was my evident purpose to arouse prejudice against Great Britain or in Great Britain against the United States; that

In view of the evidence which the Secretary has introduced, it seems to me, at least, inconsistent on his part to charge me with endeavoring to disturb friendly relations with Great Britain.

As I have already said, if the charges made which I have just summarized, which the Secretary of the Navy made against me in his testimony were true, and if, as he intimates, he was aware of these things in 1917, it is plain that in retaining me in my position abroad, in leaving me in a position where I could betray my own country into the hands of another nation, in leaving me in command of the naval forces abroad and following in most cases all my recommendations, the Secretary of the Navy failed in his trust. If the Secretary was not of this opinion in 1917 or in 1918, it is rather strange that he should have changed his opinion so thoroughly and completely since these hearings began.

In conclusion, I think it would be interesting to refer to a public utterance of the Secretary of the Navy just over a year ago:

In my preliminary statement I have expressed the intention of avoiding all personal references, but it would seem advisable to point out that the assumption that an American citizen is pro-British, or pro-French, or pro-Italian does not necessarily imply that he is un-American, or that his judgment is not to be trusted in protecting the interests of his own country. It is true that I admire the British character and am grateful for the assistance I received from the British naval officers and many others in carrying out my duties during the war, and I have taken advantage of proper occasions to express my gratitude for and appreciation of these services, as well as for the friendship and assistance given by Great Britain to the United States in the past, but in doing so I have never quite reached the limit of admiration and brotherly love attained by the Secretary of the Navy, as expressed in a speech that he made in London in May, 1919, which was reported in the London press as follows:

Mr. Daniels began by recalling that it was just 21 years ago that day that Admiral Dewey sailed into Manila Bay and won the victory which made the day memorable in American history.

And in America they loved to remember that in the fateful days that followed, when the German admiral sought to embarrass Dewey, it was a great British sailor, Admiral Chichester, who balked him. The German admiral called upon Admiral Chichester and asked him, "What will you do if I move my ships over to where Admiral Dewey's flagship, the *Olympic*, is anchored?" The British admiral was a diplomat, as were most of the naval officers, and he replied to the German in two words, "Ask Dewey." It was a delphic answer to those who did not understand the significance of it, but if I might say so, it was very illuminating. They could never forget that Dewey's victory was secured by the cooperation and the fine spirit of the British admiral.

He did not know what we should call this war in history, but he trusted and believed that it would be called "the great war against war." The ships of the two navies had different flags, but they were united in everything, and they might as well have sailed under one flag.

Do not forget that this is the Secretary of the Navy who is telling you this.

They were united in sentiment and in valor, and their flag was that of the Anglo-Saxon people fighting for Anglo-Saxon liberty. Their men had brought

back a spirit of comradeship, and to the motto "Match the Navy" might be added to-day another, "Hands across the sea and brotherhood with Great Britain."

ADMIRAL SIMS'S WORK.

Ten years ago Admiral Sims, speaking at a banquet in London, made a speech in which he said that if the time ever came when the soil of Great Britain was threatened with invasion, the American people would fight with the English people, shoulder to shoulder. Nor did they forget that the admiral was rebuked for that speech, for the President, in pursuance of policy, sent him a formal reprimand. The reprimand in the light of this hour was a decoration of honor. He rejoiced that in this cooperation with the British Navy the Navy of the United States was represented by a courageous, a wise, and a brave man—

That is me—

who understood the very heart of the struggle, and who entered into it with sympathy and the heartiest feeling for his British comrades.

It was our pleasure, and we gladly embraced the opportunity shortly after the United States entered the war, to send over a portion of our fleet to be associated with your British Grand Fleet. Our fleet and yours acted together to lay mines in the North Sea, to convoy ships bringing troops, to fight the stilettoes of the sea, stilettoes of the seas in all zones of danger, and in every naval activity courage and skill were united. We kept all other ships of our Navy ready for sailing orders when the Allies felt a larger naval force might be needed, for from the day the United States entered the war there was no thought but readiness for the fullest and quickest cooperation and use of all our sea power where joint naval statesmanship felt it could be best employed.

The CHAIRMAN. Admiral, I think that the whole of that speech has been put in the record.

Admiral SIMS. It has? I did not know that.

The CHAIRMAN. It was in the last day of the Secretary's cross-examination, I believe.

Admiral SIMS. Oh, I did not know it. I will not read the balance of that, then.

The CHAIRMAN. There was a question whether the part which you read about yourself was contained in the speech or not; and if I remember rightly, I put in a quotation from the London Times of May 2, 1919, covering part of what you have read.

Admiral SIMS. I did not know that.

The CHAIRMAN. And also I put in a quotation from the Public Ledger, of Philadelphia, of May, 1920. As this seems to differ from what we have, can you put in the newspaper article to which this refers?

Admiral SIMS. This is copied from the newspaper article.

The CHAIRMAN. Can you give the committee the newspaper article?

Admiral SIMS. Yes; I can send you the newspaper article.

The CHAIRMAN. Very well.

(The remaining portion of the extract read by Admiral Sims is here printed in the record, as follows:)

It was a gratification to us at home to know that British experts regarded our fleet in home waters well disciplined and ready to come over at a moment's notice as an invaluable reserve, as, indeed, we always deemed it. Our fleet at home was kept busy in the invaluable work of training recruits, and especially in training armed crews for merchant ships. It was tedious, and, in a sense, work that brought no glory to the officers and men. It was well done, while our British brothers of the Grand Fleet waited in enforced inaction for the Germans and suffered a great tedium, and both were making ready for the expected crisis, but each in a different way.

Sometimes it is to be feared civilians of both countries never appreciate the essential power and use of these portions of our fleets not in the most interested areas, but removed from the area where we expected—nay, where we hoped—the decisive great naval engagement would give striking proof of the incomparable power of the Allied fleets. In America we hoped for that hour, for which all other hours were only preparations. Here your naval fighters, as ours, were kept for the day when, in fair combat in the open sea, the opposing forces might in battle give the seal and eternal proof that the sea power of our countries might win as notable a victory as Nelson's or Dewey's.

TRIUMPH OF INACTION.

That this opportunity was not given, because the Germans knew the fact in store if they dared win or lose all by the sea fight, it must be confessed, took away some of the anticipated satisfaction of the men of our navies. But we should remember that the victory was all the more complete. Though lacking the glory of a titanic conflict and denying the human satisfaction of demonstrating that the men of the British and American Navies of to-day are of the same stuff as in the days when neither wind nor rain nor guns nor any other power could withstand their naval supremacy.

It was the most humiliating spectacle in the annals of naval history—was the tame surrender of the much-vaunted fleet that was organized with the boasted purpose to conquer the seas, as the Prussian troops were to dominate the land. In truth, that inglorious, limping spectacle of defeat and disaster had a greater significance of complete undoing in the eyes of the world to-day and in history than could have come from a magnificent victory in a sea duel. It was not thrilling nor spectacular. It did not stir the blood—the thing navy men had made ready for and coveted as their heart's desire. But it did more; it wrote on sea and sky the imperishable doom, the "Thou art weighed in the balance and found wanting," and carried the same lasting message as when these fateful words were interpreted by the prophet of old. To Americans and British peoples in the vast expanse of both countries the call is, "Match the navy" of your country in mutual appreciation, in clear understanding, in full fellowship, and in that loving brotherhood and helpful comradeship which will forever unite the two countries in championship and sacrifice for democracy, liberty, and fraternity.

NORTH SEA BARRAGE.

Why match the navy? The most beautiful fruit of cooperative effort and sincere friendship the war has ripened for us is the spirit which characterized the intercourse of our men of the sea. They were privileged to know each other to the core, to plan together, and to test each others' knowledge of strategy and tactics, and weapons of war, to go down together to the sea in ships, unafraid when the perils of the deep called only for men of the best mettle.

Together they undertook the most gigantic task known to navies, the barrage of the North Sea, where a mistake or lack of skill meant instant death, and where the hardships were too great for any except the stoutest and strongest bodies. They and their equally brave Allies hunted the submarine to his jungle in the trackless sea, and together conquered the most insidious and the most evasive and most murderous foe, which, without humane instinct, lay in wait for ships bearing noncombatants, sending ruthlessly to watery graves women and children, in defiance of every law of the sea, except the common law of the days of piracy. They transported millions of soldiers with a safety which seems almost miraculous. We can never forget that British ships brought over a million American soldiers from our shores, and that the only limit of this invaluable contribution of the British was the limit of your large facilities. It was a service of such emergency and of such capital importance that American appreciation is beyond any expression in words.

AMERICAN LOVE FOR BRITISH NAVY.

We love to think in America, and always with deeper love for the British Navy and the British people, of the spirit of friendship displayed by your Admiral Chichester at Manila. Every American officer on duty in southern waters at Vera Cruz in 1914 felt the same grief which bowed down the British

Navy when the news came of the death of your Admiral Craddock, when superiority in gun powder gave victory to the Germans at Coronel.

Close association at that time gave us to see the wisdom and statesmanship of your admiral and to conceive for him genuine admiration and regard. His spirit hovers over us now, drawing the nations nearer together in imperishable friendship. May we not in confidence assert the peoples of both countries will "match the navy" in actual regard, interchange of ideas and closer fellowship which make the intercourse between the nations as noble and helpful as that which existed between the men of both navies?

NAVAL COOPERATION.

I believe I am the interpreter of American wishes from one end of our country to the other when I say that the spirit of comradeship which Chichester and Dewey sealed in Manila Bay is the spirit which the American people devoutly trust may prevail between us to the end of time. Americans want naval cooperation, not naval competition, with Great Britain—cooperation in the maintenance of human liberties the world over, such cooperation as they carried out in European waters during the Great War and such cooperation, under God's providence, as they will carry out again wherever and whenever freedom is assailed by the powers of evil and tyrannical aggression.

Admiral Sims. If any expression of admiration for the services of the British and the British Navy during the war, and before the war, is conclusive evidence that the person expressing such sentiments can not be trusted, what conclusion may we draw from the above speech?

The CHAIRMAN. Is that all?

Admiral Sims. Yes.

(The newspaper article referred to above by Admiral Sims is here printed in the record, as follows:)

SIMS AND BRITAIN'S NAVY ACCLAIMED BY DANIELS IN 1919. VILIFIED IN 1920.

SPEAKING IN LONDON, SECRETARY SAID THE PRESIDENT'S REPRIMAND OF ADMIRAL FOR PROBRITISH SENTIMENT "HAS BECOME A DECORATION OF HONOR"—REJOICED THAT UNITED STATES NAVY WAS REPRESENTED IN ENGLAND BY "COURAGEOUS, WISE, AND BRAVE MAN"—TOLD OF CHICHESTER'S BACKING UP OF DEWEY, OF BRITISH SHIPS TAKING OVER AMERICAN SOLDIERS, ONLY A YEAR LATER TO APPROVE WILSON'S TAUNT THAT THAT NAVY WAS PANIC-STRICKEN.

[By Frederic William Wile. Copyright, 1920, by Public Ledger Co.]

PUBLIC LEDGER BUREAU,
Washington, May 16.

Almost a year to the week before Josephus Daniels trained his 16-inch guns on Admiral William S. Sims and poured an equally ruthless broadside into the British Navy the Secretary of the Navy was in England lavishing unstinted praise on the achievements of Sims and of British sea power in the late war. Addressing the Anglo-American Society in London on May 1, 1919, Mr. Daniels singled out, in the case both of Admiral Sims and the British Admiralty, the very things which the naval Secretary and President Woodrow Wilson between them last week condemned in such brutal and amazing fashion.

Mr. Daniels acclaimed Admiral Sims's "pro-British sympathies"; said that the presidential reprimand Admiral Sims received in 1910 for voicing them "now had become a decoration of honor" and rejoiced that the United States Navy, during the war, "was represented in England by a courageous, wise, and brave man, who understood the very heart of the struggle and entered into it with sympathy and heartiest feelings toward his British comrades."

If that deadly parallel, as regards Admiral Sims, stultifies Josephus Daniels, North Carolina's leading naval expert is made even more ridiculous by his former views of British naval strategy. Last week Mr. Daniels made public with his own unmistakable approval President Wilson's remarkable taunt that "nothing ever happened" in the British Navy because it was "panic-stricken."

On May 1, 1919, Mr. Daniels was on his feet in London eloquently asserting that the final, bloodless triumph won by allied sea power "had a greater significance than could have come from a magnificent victory of a sea duel. He eulogized the valor and patience of "our British brothers of the Grand Fleet who waited in enforced inaction for the Germans."

SAID NAVIES WERE UNITED.

He proclaimed "that while ships of our two navies had different flags, they were united in everything and might as well have sailed under one flag." He said that America was "gratified" to have British experts look upon the United States Navy "as a reserve."

Nor did Mr. Daniels attempt while on British soil to "hog" credit for the North Sea mine barrage as he did before the Senate subcommittee last week for the American Navy. He said in London that "together the American and British navies undertook the most gigantic task known to fleets." And finally, perhaps in most glaring contrast to any of his statements at the Senate hearing, Mr. Daniels told his British audience that "we can never forget that British ships brought over a million American soldiers from our shores—a service of such emergency and capital importance that American appreciation is beyond any expression in words."

Mr. Daniels's speech by a happy coincidence was delivered on the twenty-first anniversary of the Battle of Manila, and he chose the celebrated Dewey-Chichester episode as his opening theme. Among those who heard his panegyric on the British navy were the Duke of Connaught and the American ambassador.

The following report of Mr. Daniels's remarks appeared in the London morning papers of May 2, 1919, and is virtually verbatim:

"Mr. Daniels began by recalling that it was just 21 years ago that day that Admiral Dewey sailed into Manila Bay and won the victory which made the day memorable in American history.

"And in America they loved to remember that in the fateful days that followed, when the German admiral sought to embarrass Dewey, it was a great British sailor, Admiral Chichester, who balked him. The German admiral called upon Admiral Chichester and asked him: 'What will you do if I move my ships over to where Admiral Dewey's flagship, the *Olympic*, is anchored?' The British admiral was a diplomat, as were most of the naval officers, and he replied to the German in two words, 'Ask Dewey.' It was a delphic answer to those who did not understand the significance of it, but if I might say so, it was very illuminating. They could never forget that Dewey's victory was secured by the cooperation and the fine spirit of the British admiral.

"He did not know what we should call this war in history, but he trusted and believed that it would be called 'the great war against war.' The ships of the two navies had different flags, but they were united in everything, and they might as well have sailed under one flag. They were united in sentiment and in valor, and their flag was that of the Anglo-Saxon people fighting for Anglo-Saxon liberty. Their men had brought back a spirit of comradeship, and to the motto 'Match the navy' might be added to-day another, 'Hands across the sea and brotherhood with Great Britain.'"

ADMIRAL SIMS'S WORK.

"Ten years ago Admiral Sims, speaking at a banquet in London, made a speech in which he said that if the time ever came when the soil of Great Britain was threatened with invasion, the American people would fight with the English people shoulder to shoulder. Nor did they forget that the admiral was rebuked for that speech, for the President, in pursuance of policy, sent him a formal reprimand. That reprimand, in the light of this hour, was a decoration of honor. He rejoiced that in this cooperation with the British Navy the Navy of the United States was represented here by a courageous, a wise, and a brave man, who understood the very heart of the struggle, and who entered into it with sympathy and the heartiest feeling for his British comrades.

"It was our pleasure, and we gladly embraced the opportunity shortly after the United States entered the war, to send over a portion of our fleet to be associated with your British grand fleet. Our fleet and yours acted together to lay mines in the North Sea, to convoy ships bringing troops to fight the

stilettoes of the seas, stilettoes of the seas in all zones of danger, and in every naval activity courage and skill were united. We kept all other ships of our Navy ready for sailing orders when the Allies felt a larger naval force might be needed, for from the day the United States entered the war there was no thought but readiness for the fullest and quickest cooperation and use of all our sea power where joint naval statesmanship felt it could be best employed.

"It was a gratification to us at home to know that British experts regarded our fleet in home waters well disciplined and ready to come over at a moment's notice, as an invaluable reserve, as indeed we always deemed it. Our fleet at home was kept busy in the invaluable work of training recruits, and especially in training armed crews for merchant ships. It was tedious, and, in a sense, work that brought no glory to officers and men. It was well done, while our British brothers of the grand fleet waited in enforced inaction for the Germans and suffered a great tedium, and both were making ready for the expected crisis, but each in a different way. Sometimes it is to be feared civilians of both countries never appreciated the essential power and use of these portions of our fleets not in the most infested areas, but removed from the area where we expected—nay, where we hoped—the decisive great naval engagement would give striking proof of the incomparable power of the allied fleets. In America we hoped for that hour, for which all other hours were only preparation. Here your naval fighters, as ours, were kept for the day when, in fair combat in the open sea, the opposing forces might in battle give the seal and eternal proof that the sea power of our countries would win as notable a victory as Nelson's or Dewey's.

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"It was the most humiliating spectacle in the annals of naval history—was the tame surrender of the much-vaunted fleet that was organized with the boasted purpose to conquer the seas as the Prussian troops were to dominate the land. In truth, that inglorious, limping spectacle of defeat and disaster had a greater significance of complete undoing in the eyes of the world to-day and in history than could have come from a magnificent victory in a sea duel. It was not thrilling nor spectacular. It did not stir the blood—the thing navy men had made ready for and coveted as their hearts' desire. But it did more; it wrote on sea and sky the imperishable doom, the 'thou art weighed in the balance and found wanting,' and carried the same lasting message as when these fateful words were interpreted by the prophet of old. To Americans and to British peoples in the vast expanse of both countries the call is 'Match the navy' of your country in mutual appreciation, in clear understanding, in full fellowship, and in that loving brotherhood and helpful comradeship which will forever unite the two countries in championship and sacrifice for democracy, liberty, and fraternity.

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fluence of every law of the sea except the common law of the days of piracy. They transported millions of soldiers with a safety that seems almost miraculous. We can never forget that British ships brought over a million American soldiers from our shores, and the only limit of this invaluable contribution by the British was the limit of your large facilities. It was a service of such emergency and of such capital importance that American appreciation is beyond any expression in words.

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"We love to think in America, and always with deeper love for the British Navy and the British people, of the spirit of friendship displayed by your Admiral Chichester at Manila. Every American officer on duty in southern waters at Vera Cruz in 1914 felt the same grief which bowed down the British Navy when the news came of the death of your Admiral Craddock, when superiority in gun power gave victory to the Germans at Coronel. Close association at that time gave us to see the wisdom and statesmanship of your admiral and to conceive for him genuine admiration and regard. His spirit hovers over us now, drawing the nations nearer together in imperishable friendship. May we not in confidence assert that the peoples of both countries will 'match the navy' in actual regard, interchange of ideas, and closer fellowship, which make the intercourse between the nations as noble and helpful as that which existed between the men of both navies?

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"I believe I am the interpreter of American wishes from one end of our country to the other when I say that the spirit of comradeship which Chichester and Dewey sealed in Manila Bay is the spirit which the American people devoutly trust may prevail between us to the end of time. Americans want naval cooperation, not naval competition, with Great Britain—cooperation in the maintenance of human liberties the world over, such cooperation as they carried out in European waters during the Great War and such cooperation, under God's providence, as they will carry out again wherever and whenever freedom is assailed by the powers of evil and tyrannical aggression."

The CHAIRMAN. The committee will stand adjourned until 2 o'clock this afternoon.

(Thereupon, at 1 o'clock p. m., the subcommittee took a recess until 2 o'clock p. m.)

AFTERNOON SESSION.

The subcommittee reconvened, pursuant to the taking of the recess, at 2 o'clock p. m., Senator Frederick Hale (chairman) presiding.

TESTIMONY OF ADMIRAL W. S. SIMS—Resumed.

The CHAIRMAN. Admiral Sims, was the North Sea barrage ever completed?

Admiral Sims. No, sir; it was not entirely completed. They had not laid down all of the fences, as they called the strips of mines that they intended to lay down; and as a matter of fact, it would never have been completed until the war was over, because we would have continued to lay fences.

In an article which appears in this month's issue of the *World's Work* on the mine barrage, I think I have explained that a mine barrage is never complete. Nobody ever thinks of laying down mines enough to make it entirely sure that any submarine crossing

it would hit a mine; but what we aim to do is to put down enough mines so that the chances of destruction are greater than the enemy would feel justified in taking. In discussing that thing with the people on the other side we estimated that if we had a barrage that made it sure that out of every five submarines that went across it and came back one got lost, it would probably stop them attempting to cross it at all; although of course we would have made it denser as time went on.

The mine barrage was laid in three pieces, three rectangles. We had the big rectangle in the middle and Great Britain had a rectangle on the Norwegian coast and a rectangle on the north side of the Orkney Islands. We assisted to a certain extent in each of those.

Between the northern end of the Orkney Islands and the Norwegian coast there was a gap that had not yet been filled in. The commander of the grand fleet felt that he had to have that hole to go through where there were no mines. They laid deep mines there and patrolled the area of that passage in order to force the submarines down into the mines; but nobody has complete confidence that the mechanism of a mine will do what you want it to do, and that some of them will not come up to the surface.

Besides all that, there was the Pentland Firth, which is one of the most extraordinary pieces of water in the world, due to the fact that the tide runs through there at times at 10 miles an hour. That was also left open so that the fleet could get out to the westward in case of necessity to chase German battle cruisers, without having to go all the way around the Orkney Islands; but it was a very dangerous passage, and one only used by the most expert submarine commanders.

The CHAIRMAN. Was the barrage ever closed to the extent that it was an effective barrage, before the armistice?

Admiral SIMS. No; it never at any time was an entirely effective barrage; but it had got to the position where it was so dangerous to cross it as to make the submarines very cautious and to interfere with their morale, I believe, to a considerable extent.

We knew that the German submarines had orders—when they were coming back, for example, we learned that they had orders—to cross the barrage in a certain place if the weather was smooth and it was daylight, and they came across that way sometimes successfully and sometimes they did not. Sometimes they were fearfully injured and were able to get back. I remember on one occasion one submarine came across and was going into the Skegerrak and she received a call for help from another submarine which was following her that exploded a mine, but the mine did not sink her, although it injured her. But never at any time was it an absolute barrier nor was it ever anticipated that it would ever be an absolute barrier, but it would have been a sufficient barrier to keep submarines from going across if the war had continued for a certain length of time more. But we were continually building the mines and sending them over. The flow had not stopped at all at the time of the armistice.

The CHAIRMAN. During how much of the war, if at any time, was it an effective barrage?

Admiral SIMS. That is a little difficult to say about an effective barrage. It depends on what you mean by effective. I think from

a certain date you might say that it had an effect on the morale of the Germans. Before any mines are laid at all we have to notify everybody, all nations, that a certain area is to be mined. I think you have got to give them three weeks' warning. At the end of that three weeks, of course, the enemy does not know where you have begun to lay mines. It begins from that time to have an effect upon the morale of his forces. After some submarine gets into trouble that effect is greater. We fixed the date for the beginning of the laying of the barrage about the 1st of April, 1918, but the mine layers—converted mine layers—had not been completed in this country and they did not begin until about the first week in June, 1918. Then they had trouble with the mines.

The CHAIRMAN. Why did we not begin the 1st of April?

Admiral SIMS. The mine layers were not ready, the ones that were transportable from over on this side; the work had not been completed in making them ready to drop mines—putting elevators in them, etc.—so that they did not begin until the first week in June to lay mines. Then this was a new mine that had not been experimented with except individual mines, and there had been no experiments in laying numbers of these mines before, and the firing mechanism is a very delicate thing, that depends upon a very, very small spark of electricity, and there were defects of some kind in there that we did not know about, so that when they would lay a bunch of mines from a ship you would find that perhaps 15 or 20 per cent of those mines would explode automatically, due to some defect of some kind; they did not know what; so that we had to arrest the mine laying for about six weeks and did not begin until nearly two months—did not begin again until the month of August, 1918, and by that time we did not have more than from 3 to 4 per cent of explosions.

Then they went ahead and laid all the mine fields with very considerable rapidity, interrupted only by the ordinary accidents of navigation and bad weather, and they continued until right up to the armistice.

The CHAIRMAN. In the testimony of the Secretary of the Navy, Admiral, I think he stated that you furnished escorts for convoys into St. Nazaire—escorts of destroyers—

Admiral SIMS. Yes.

The CHAIRMAN (continuing). And that after they had reached St. Nazaire you removed the destroyers and ordered them back to their base.

Admiral SIMS. Yes. The troop ships, etc., were met about 300 or 400 miles to the west of Ireland, according to the position that the submarines were operating in, and were taken from there up to the very harbor of St. Nazaire, or Brest, as the case might be, where they were met by any small vessel from the French port that would bring a pilot out with the latest information as to which channels were clear. Then the destroyers immediately went back to Queenstown, where they would stay three days and then go back for another convoy.

The CHAIRMAN. You did not escort vessels back from St. Nazaire, coming out?

Admiral SIMS. You mean empty vessels?

The CHAIRMAN. Yes.

Admiral SIMS. No; those vessels stayed in there until they got their troops out and got out what freight they carried, and then they were escorted off the coast by the French forces.

The CHAIRMAN. And your orders were for the destroyers to go back to the base immediately on leaving them at St. Nazaire?

Admiral SIMS. The destroyers had to go back there because they were working to the extreme limit then to bring in all the convoys that were coming in through the English Channel and through the south channel to the Irish Sea. The north channels were handled by destroyers that were stationed at Duncannon. Those destroyers were working at that time to the extreme limit to which we could push them. There were about four destroyers that were out of commission all the time, due either to boiler troubles—that is steaming too much without being able to properly overhaul—and accidents of navigation, and so forth, that would have driven any commander to put some of them out of commission; and the personnel could not stand much more than seven days out and three days in, in the duty that they had to perform; so that we had to take the risk of escorting empty transports off the coast with yachts, and so forth, on the French coast. It would have been better for those vessels if we could have given them destroyers, of course. Sometimes we were able to do it, but not very often, depending on the arrival of convoys that would coincide with the dates of convoys going out; but that did not often happen, because the instructions from the Navy Department, in accordance with the request of the War Department, were to make the turn around of transports as rapid as possible; so that when, say, six transports came in, instead of waiting until all six were discharged, we sent them out as they had to take their turns at the wharf; we would send out perhaps one or two or three of them only as quickly as they could be discharged, so that they could go back to make another turn around and another convoy. The whole business was a question of time in what they called the turn around.

The CHAIRMAN. Have you any questions, Senator Ball, to ask the witness?

Senator BALL. No, sir.

The CHAIRMAN. Have you any questions, Senator Pittman?

Senator PITTMAN. Admiral, what evidence did you have in your possession when you first came before this committee that you did not present, that you have presented this time?

Admiral SIMS. Is there any particular point that you have reference to?

Senator PITTMAN. No. If you do not understand my question I will repeat it.

Admiral SIMS. Yes; I understand the question, but it is a very comprehensive question. I was wondering if I could remember them all. Do you have reference, for instance, to the telegram that was sent to me by the President? That was one thing that I did not put before the committee at that time, and I think the reason is perfectly clear, from the telegram itself that was sent to me by the President, in which I was given to understand that I would keep this thing entirely confidential.

Senator PITTMAN. Is there any other evidence that you had in your possession when you first testified that you did not present to the com-

mittee, that you have presented on this occasion, other than that telegram you have just mentioned.

Admiral SIMS. There is one little piece of evidence there, about the establishing of a planning section in the Office of Operations, that I did not put in the last time, I believe; but that is not of any particular importance. It is in the testimony this time, with the telegrams that were sent over requesting advice or suggestions as to the composition of the planning section and what subjects it should take up and what its personnel should be, etc. There may be others that I can not recall right now.

There is a considerable amount of text that has been submitted this time that was not submitted last time, and as I remember I specifically invited the attention of the committee to the fact that I was supporting and substantiating certain statements of mine by extracts from cables and letters and that I had not included the whole of the letter or cable; but I suggested that the committee should ask the Navy Department to supply them with the full text of all letters from which I had made quotations. Whether the chairman applied for those letters, and if he did, whether he got them or not, I do not know. In certain parts of this testimony I have included the whole of a letter from which I had previously given quotations.

Senator PITTMAN. Yes.

Admiral SIMS. In a number of instances I have done that.

Senator PITTMAN. Is that the extent to which you have placed before this committee testimony now that you had in your possession on the former hearing that you did not present to the committee then?

Admiral SIMS. There were certain personal letters and certain extracts from personal letters that were not necessary to be put in then, but were necessary to put in now as a defense against certain allegations that were made against me by various witnesses.

The CHAIRMAN. And also certain newspaper extracts?

Admiral SIMS. Yes. I would have to go through the testimony pretty carefully to be sure that I could remember all those things now. I only included in my other statement and in this statement the documents and the evidence that I thought was necessary under the situation. There are a good many documents, of course, that I have knowledge of the existence of that I could have gotten from the Navy Department, I suppose, in further substantiation of certain ones of these statements; but I have put in the ones, all that I thought were necessary to bring out facts, and I have not kept back any documents of any kind that I know of that would have enlightened this committee in any way. I can assure you that I have made every effort to bring out the facts as they exist according to my estimation of what they mean, and have no other idea or no other intention at all.

Senator PITTMAN. My purpose in asking that was simply this, admiral, to ascertain whether or not there were any matters that I might consider the cross-examination would develop for the benefit of the committee, and I do not want to take up time in cross-examination unless it will further enlighten the committee; and as there seem to be very few new matters brought out that were not discussed in the former hearing quite fully, I—

Admiral SIMS. I should say, generally, that there is no new matter brought out that bears upon the object of the investigation. There

necessarily has been a good deal of matter brought out that was not at all necessary, too, in order to answer what I conceived to be misinterpretations and mistaken statements that have been made by certain of the witnesses; but most of those things have nothing to do with the real object of the investigation. I should say the bulk of them, you might say, were in justification of my actions and in defense of my personal character, that, of course, I did not bring in before. I did not think it would be necessary.

Senator PITTMAN. I do not desire to cross-examine, of course, in regard to opinions, and I am not denying that you have a right, you understand, in answering an attack on you, to make any argument you see fit, in the matter.

Admiral SIMS. Yes.

Senator PITTMAN. But I consider it a waste of time to cross-examine a witness as to his opinions based upon facts, when he has submitted the facts.

Admiral SIMS. It is my opinion that all of the evidence as far as I am able to introduce it, is in. It is quite true that in reference to certain subjects I have brought in other details which I did not consider necessary when I had my first hearing, and which I only came to consider necessary because those particular subjects were made the basis of really an attack against my judgment and to a certain extent against my personal character, and therefore I thought it necessary to bring in other facts which I did not think were necessary and which were not necessary before, and largely for the defense of my actions; but that is all. I do not think there is anything that bears on the case at all.

The CHAIRMAN. As a matter of fact, Admiral, your statement consists largely, does it not, of a marshalling of the testimony that has already been given by witnesses?

Admiral SIMS. Yes; by witnesses.

The CHAIRMAN. And those witnesses have all been examined and cross-examined?

Admiral SIMS. Yes. Those witnesses have all been examined and cross-examined; and in this statement I have presented now I have referred only incidentally, a couple of times, to certain of the witnesses that have been called here at the request of the committee, and have based the rebuttal statement nearly exclusively upon the testimony of witnesses called at the request of the Secretary of the Navy.

Senator PITTMAN. In view of this statement of the chairman and of your answer to it, I have no cross-examination.

The CHAIRMAN. I will not answer for everything, of course, that is in the testimony, for I can not recall everything, but that is my impression.

Senator PITTMAN. I do not want to examine the witness as to matters of argument and conclusions, but as to facts.

The CHAIRMAN. New facts?

Senator PITTMAN. New facts; yes.

The CHAIRMAN. This morning, Admiral, you stated to the committee that you had not had an opportunity to examine the last 600 or 800 pages of the testimony.

Admiral SIMS. In cross-examination, I think.

The CHAIRMAN. Which consisted principally of cross-examination?

Admiral SIMS. Yes.

The CHAIRMAN. Of the Secretary of the Navy. Have you had an opportunity to go over this testimony yet?

Admiral SIMS. No, sir; I have not.

The CHAIRMAN. You suggested this morning that you be allowed to put in a supplementary statement if you thought it was necessary, covering this matter, and I told you that—

Admiral SIMS. It would not be admissible.

The CHAIRMAN (continuing). We could not consent to it because it would hardly be fair, because it would not leave an opportunity for cross-examination.

Admiral SIMS. Yes.

The CHAIRMAN. Now, if the committee feels otherwise about it, I am entirely willing to have you do that.

Admiral SIMS. I do not know anything about the statements beyond the copies that were sent me, and I think that includes practically all of the cross-examination except the small squibs that I have seen in the press, which, of course, were not complete.

The CHAIRMAN. If you want to wait, you can take your time to examine these last pages of the testimony and appear again before the committee. What would you suggest, Senator Pittman?

Admiral SIMS. No; I would not like to do that; with all due respect to the committee, I am tired of appearing before the committee.

Senator PITTMAN. I think that is almost unanimous.

Admiral SIMS. Yes; I am quite sure of it.

The CHAIRMAN. What would you suggest, Senator Pittman? Would you have any objection to his putting in a supplementary statement? There has been very little examination on his statement so far, and there probably would not be much on this.

Senator PITTMAN. From the admiral's statement, I do not think that he has any hopes of finding anything new, but—

Admiral SIMS. You never can tell when the Secretary testifies. He has surprised us several times.

Senator PITTMAN. A person very frequently thinks of belated repartees; I have noticed that myself. I generally think of my repartees going home.

The CHAIRMAN. Have you any objection to the admiral making some additional statement?

Senator PITTMAN. The only objection I have, Mr. Chairman, is that we have all been buoyed up with hopes for two days that this was going to end, and I can conceive if we open the door to one side to put in a written statement the other side will then insist upon putting in another written statement, and it is really interminable argument. The facts are all in and argument should be left to the committee. If we do not agree on some things, we will argue them; but the facts are all before us.

Admiral SIMS. I will be entirely satisfied to abide by any decision the committee makes. If the committee wants a statement, I am perfectly willing to make it if I find I can carry it on. If they do not, I am perfectly willing to let it go.

Senator PITTMAN. Personally, I would like to start to work to examine this mass of evidence with the hope of being able to make a report in the near future, and we could not do that as long as there was a door open to the injection of something new.

The CHAIRMAN. When could you supply us with this supplementary statement? I do not know that you would have any to make.

Admiral SIMS. I do not, either.

The CHAIRMAN. We want to give you a fair opportunity, that is all.

Admiral SIMS. I think we had better drop the whole business, then. I do not think there could be anything of particular importance, and if the committee does not care to have it I do not care about it particularly. As a matter of fact, it is up to the committee. If they want it overhauled, I am willing to do it.

The CHAIRMAN. It simply covers the last three days of the cross-examination, does it not?

Admiral SIMS. It does; about. Really, I want to put this up to the committee: If they would like to have me overhaul that testimony and make any statement about it, I am willing to do it; if not, I will be glad to get out of it.

The CHAIRMAN. It is not the committee caring about it; it is simply giving you the opportunity. You do not care about it?

Admiral SIMS. No, sir; I do not care about it.

The CHAIRMAN. Then, Admiral Sims, you may be excused.

Admiral SIMS. I would like to express to the committee my appreciation for the courtesy with which I have been received and handled in this matter, and I also wish to say that if I have at times shown a little bit of temper, I am sorry, especially with reference to my friend Senator Pittman.

Senator PITTMAN. I assure you, Admiral, I have no hard feelings about it. I enjoyed it as much as you did.

Admiral SIMS. Thank you.

The CHAIRMAN. During the course of the testimony given by the Secretary of the Navy criticisms were made of Admiral Fiske and Admiral Wilson for what were characterized as attempts on their part to Prussianize the Navy. Both of these officers have written me, stating that they would like to answer these criticisms. I suggested that they should prepare statements for the committee instead, and they have done so, and these statements I now have before me, and I will read them to the committee if the committee thinks that that is the proper action to take in regard to these statements. Both of these officers are in the room at the present time. If the committee would rather have them go on in person, I suppose we can put them on the stand at the present time. However, I think it will be entirely satisfactory if the statements are read.

Senator PITTMAN. The only thing I suggest is this: That if the statements are put into the record the Secretary be given three or four days, if he wants to, in which to reply by written statement filed with the committee to any new matter that he may consider brought out in them. As a matter of fact, I doubt if there is anything brought out one way or the other.

The CHAIRMAN. I will ask Senator Pittman and the other members of the committee whether you would rather have these two admirals go on the stand, so that you can cross-question them yourselves, when they have gotten through, if you see fit to do so?

Senator PITTMAN. I do not think it would serve any purpose, if I understand the scope of their statements.

The CHAIRMAN. I have not read their statements. I do not know how much scope they cover. One statement is a fairly long statement.

Senator PITTMAN. How would it do to let me have a copy of those two statements and postpone this matter until 10 o'clock Monday morning, and by that time I can look them over and see whether or not it is bringing new matter in that would require recross-examination?

The CHAIRMAN. I would like very much to get over with the matter to-day, if I can. I think your first suggestion, that the Secretary be allowed to make a written statement and to put that in the record after he has read these statements, if he sees fit to do so, is all right.

Senator PITTMAN. I think that is sufficient.

Senator KEYES. Would his statement cover these particular matters?

Senator PITTMAN. Undoubtedly.

Senator BALL. No new matter?

Senator PITTMAN. Nothing new.

Senator BALL. I think that would be the most satisfactory.

Senator PITTMAN. It would be to me.

Senator BALL. It would to me.

The CHAIRMAN. If that is the sense of the committee, we will take that action.

I will read first the letter of Admiral Fiske.

Senator PITTMAN. Just put them in without reading them.

The CHAIRMAN. I think I would like to see what they have said. I would like to read them, if you do not mind. You are not going to cross-examine on them.

Senator PITTMAN. No; not at all. I dislike very much to separate myself from the committee, and I like to hear the chairman read as much as I like to hear the others. There will be nothing else done except this?

The CHAIRMAN. No; and after reading these statements I think the committee will adjourn, subject to the call of the chairman.

Senator PITTMAN. As I understand, after reading these statements there is no other evidence or anything else to be filed before this committee except the statement of the Secretary answering these statements.

Senator BALL. The statements made in these letters.

Senator PITTMAN. Undoubtedly.

The CHAIRMAN. Some new matters may come up that we may want to consider. I do not mean putting on any other witnesses, but some belated statement may come in. For instance, I have asked for plans from officers on the question of reorganization of the Navy, and some have replied and some have not, and there are undoubtedly other papers at different times that will come in.

Senator PITTMAN. Things that have been heretofore asked for; is that it?

The CHAIRMAN. Yes.

Senator PITTMAN. That is true; but I mean going to open up this hearing.

Senator FALL. That is letting in any additional evidence on the matter before us.

Senator PITTMAN. And we are not going to ask for any additional evidence besides what we have got before us, excepting the things we have asked for.

The CHAIRMAN. Now, one minute. The Secretary has explained that he wants to put in a certain matter that has come up about tables.

Senator PITTMAN. Well, that has been all agreed—that he shall put that in—has it not?

The CHAIRMAN. Oh, yes. I do not know whether he is going to put them in himself or another officer.

Senator PITTMAN. I do not object to other things going in so long as it stops somewhere.

The CHAIRMAN. We all want to stop; but I do not want to make any hard-and-fast rule whereby something will be objected to on a technicality.

Senator PITTMAN. You are going to adjourn after this to-day?

The CHAIRMAN. Yes; subject to the call of the chairman.

This is the statement from Admiral Fiske [reading]:

WASHINGTON, D. C., May 28, 1920.

TO THE SENATE SUBCOMMITTEE ON NAVAL AFFAIRS.

GENTLEMEN: (1) On May 24 and 25 Secretary Daniels, in his testimony before you, denounced certain acts of mine while aid for Operations and made statements that reflected adversely on my character, mentality, and professional ability.

(2) I do not think it necessary to defend myself against these statements because of the following facts:

(3) At your afternoon hearing on May 25 your chairman read into the record an official letter from the General Board to the Secretary of the Navy, dated August 1, 1914. At the same time your chairman read an official letter, signed by the Secretary, dated April 21, 1916, addressed to the Senate, in response to a resolution by the Senate, dated April 12, 1916. In this letter Secretary Daniels made the statement to the Senate "That the letter of August 1, 1914, does not refer to 'the necessity of bringing the Navy to a state of preparedness,' as stated in the resolution of your body." Yet the first paragraph of the letter of August 1, 1914, from the General Board, read:

"In view of the immediate danger of a great war in Europe, and in pursuance of its duties as laid down in paragraph R 167 (1) of the Navy Regulations, the General Board earnestly urges that the battleships be brought home, docked, and put in perfect readiness, with the exception of the ships actually necessary in Caribbean and Mexican waters."

The last two sentences of this letter read:

"* * * * * and if the end of the war should find Germany stronger than ever in her European position, and with her fleet practically unimpaired, the temptation will be great to seize the opportunity for obtaining the position which she covets on this side of the ocean. We should prepare now for the situation which would thus be created."

(4) On November 5, 1914, I handed to Secretary Daniels a letter I had written to him reporting that the Navy was unprepared for war, and specifying in what particulars. This letter was filed with the Navy Department under date of November 9, 1914. In his letter of April 21, 1916, just mentioned, Secretary Daniels, referring to my letter, said:

"I did not know of its existence until long after it was written."

(5) While I was aid for Operations I was the Secretary's senior aid and the officer specially charged by the regulations with advising him in matters of naval strategy, fleet operations, and the readiness of the Navy for war.

(6) I soon realized that even in peace the organization of the Navy Department was inefficient; in war it would have been inoperative. There was no adequate agency for making war plans, no means of expanding the personnel without depleting the trained crews of the battleships, no method for insuring prompt mobilization, no machinery for handling the necessary mail and telegraph service, no way of knowing the state of preparedness of the various bureaus, no system for coordinating their efforts.

(7) When the war broke out in Europe on August 1, 1914, I explained the situation to the Secretary, but was met with the assertion that there was no danger whatever that the United States would get into the war. Realizing the necessity for getting an operative organization, I persistently presented my views. On several occasions when I attempted to point out the forces that were dragging us toward war, I was told to "trust the President."

(8) You know the various acts which I performed in order to get the organization established which later handled the Navy throughout the war. These are the acts for which the Secretary denounced me. Had I not performed them, the Navy would have gone into the war without the two principal agencies which the Secretary and his supporters have declared to you were vital—I mean, the office of Chief of Naval Operations and the administrative plan.

(9) Had I not done what I did, the Secretary himself would surely have been disgraced soon after we got into the war, for the unpreparedness of the Navy would then have burst suddenly on the people, and he would have become the object of their wrath.

Instead of abusing me, I submit that the Secretary ought to thank me for saying not only the Navy but himself.

Respectfully,

BRADLEY A. FISKE,
Rear Admiral, United States Navy (Retired).

(The following communication was subsequently received from the Secretary of the Navy, and is here printed in the record, as follows:)

THE SECRETARY OF THE NAVY,
Washington, June 2, 1920.

DEAR MR. CHAIRMAN: I am told that at the last day of the hearings Rear Admiral Fiske, retired, who had been heard at length, airing his grievances earlier in the hearings, came forward again and presented a letter which was placed in the hearings purporting to be an answer to my testimony. It is far from my purpose to make any detailed answer to his nine absurd statements except to refer to my direct testimony and cross-examination and to add six brief observations.

First. Rear Admiral Fiske's plan of organization of the Navy Department was repudiated in the act of Congress, and therefore had nothing whatever to do with the operations of the Navy in peace or war. His Prussianized plan was as much like the plan proposed by me and adopted by Congress and operated successfully during the war as Von Tirpitz is a counterpart of Abraham Lincoln. The preparation under the administrative plan owed nothing to him in conception or execution. His egotism, as I told your committee, is monumental and his obsession that he was responsible for even a scintilla of naval efficiency is born of supervanity and has no basis to rest upon. He had nothing to do with any preparation for war, nothing to do with the splendid organization.

Second. Although nearly every other retired officer volunteered for service of any character in March or April, 1917, he wrote a letter either the latter part of March or early in April asking me not to call him into active service in the war, giving as his reason that he was working on a torpedo plane, and said: "We expect that it will be ready before June 1, 1917," and "expect to produce a large torpedo plane by September," and added, "I beg leave to express the hope that I shall be permitted to proceed with this work, as I believe I can do more good this way than in any other way." Other officers volunteer to come back and do what the department thought would help win the war. He chose his own field and experimentation and did not serve in the Navy in the days when other officers were donning the uniform. His request not to be called to duty was granted. Much later in the war he wrote, making application to be assigned to naval duty. His letter was as follows, written 14 months after war was declared:

128 WEST FIFTY-NINTH STREET, NEW YORK,
June 17, 1918.

From: Rear Admiral B. A. Fiske (retired).
To: The Secretary of the Navy (Bureau of Navigation).
Subject: Applying for duty.

1. I respectfully apply for whatever duty the department may assign me.
2. On account of the dangerous illness of my wife, who is practically helpless and dependent on me, I should prefer duty near New York.

B. A. FISKE,
Rear Admiral, United States Navy (Retired).

His services were not needed then, and he was not called. His egotism, his obsession of Prussian infallibility, and his visionary and impracticable ideas were such that he could have rendered no valuable service. He would only have been a hindrance.

In view of the fact that at the beginning of the war he definitely requested not to be called to active service, the following statement, on page 680 of his book, is one which it is difficult to reconcile with the facts:

* * * "On November 11 an armistice was signed, and the war virtually ended.

"This caused great rejoicing among all the allied nations; but it brought me face to face with the fact that I had not been officially employed during the entire war, though I had made official application for duty and many retired rear admirals older than I had been employed who had not had as complete and varied experience as I. No reason (I mean, of course, no good reason) for not employing me occurred to me."

Third. While Rear Admiral Fiske was called aid for Operations—his true title should have been "Obstacle to Operations"—he made my life a burden urging me to appoint him commander in chief of the Atlantic Fleet. This exhibition of self-seeking and lack of the proprieties was as reprehensible as it grew tiresome. If I had granted his request and inflicted him on the Atlantic Fleet the public would have heard none of his absurd criticisms and pretensions, but the efficiency of the fleet would have suffered. My sense of duty would not permit me to assign an officer so unfit for that duty as commander in chief of the Atlantic Fleet.

Fourth. Rear Admiral Fisks opposed my policy of giving enlisted men an opportunity for education, and grew furious over my wine-mess order. He went so far as to write me a letter which was a grave and unjust reflection upon the officers of the Navy, saying:

"Another effect would be the increased temptation to officers to secrete whisky in their rooms and to drink whisky (a most dangerous thing) instead of wine or beer. Another effect would be an increased temptation to use cocaine and other drugs."

The order has been in effect for more than six years, and nobody has ever heard of a single officer either "secreting whisky in their rooms and drinking whisky, instead of wine or beer, or using cocaine and other drugs."

Fifth. Rear Admiral Fiske has taken great credit to himself that he "resigned" as a protest against me in some way. He resigned verbally on April 1, 1915, a position which the act of March 4, 1915, had required to be abolished, and according to his own statement in his book, his written resignation was submitted on April 2, no reason being given in it, but his reason being that according to a newspaper the Secretary was considering the idea of appointing another officer to the new position of Chief of Naval Operations. Admiral Fiske says that when he heard this "I realized immediately that I had to act at once or be put in a very mortifying position." Such was the high motive behind his much-advertised resignation.

Sixth. I have never "denounced" Rear Admiral Fiske or "abused" him. On the contrary, I marvel at my standing him so long. I thought for a long time, though he worshipped Prussianism and sought vainly to convert me to it, that he was loyal to the Secretary of the Navy, for he was always preaching that loyalty was the first essential of a good naval officer. Indeed, I did not know the full extent of his disloyalty until I read in his book, his so-called diary, in which he relates his version of conversations, always making himself out a reincarnated Mahan. One extract alone from his diary shows that I should have dismissed him from a position in the department long before I interned him for the efficiency of the Navy.

Admiral Fiske, in a confidential position requiring peculiar loyalty to his superior, could have resigned at any time in protest against any policy or action which he considered detrimental to the Navy. He chose to cling to his office to the last minute and secretly and surreptitiously to "bore from within" in a most disloyal manner. The following quotation from his book is a complete demonstration of this:

"December 27. Sunday. Called on Hobson in p. m. and explained why a General Staff is absolutely essential if one is to have a Navy of maximum effectiveness, though it is not necessary if one is to have merely a Navy.

"January 3. Sunday. Had long interview in p. m. with Hobson at his residence in regard to General Staff, etc. I took many documents with me, and Hobson became thoroughly interested. We concluded that it might be better-

not to attempt to get through legislation for any modification of aid system, because Secretary would say present aid system is adequate and that it might be better to propose a new scheme whereby an addition would be made to present system and additional means be provided to accomplish preparation for war. So I asked Capts. H. S. Knapp, Hood, and Oliver, and Lieut. Commanders Cronan, Madison, and Knox to be at Hobson's at 8.30 p. m. We all met there in Hobson's study, and sat till after 11 p. m., when we adjourned. We agreed on program whereby Chief of Naval Operations is to be legislated for and to have 15 assistants.

"The entries under head of December 27 and January 3 give the outlines of a good deal of work that Hobson and I did on those days and in the intervening week. The plan which we drew up was drawn up in the light of my knowledge of strategical requirements and Hobson's knowledge of congressional requirements. When the six officers arrived that evening they came secretly, because they were engaged on an exceedingly dangerous mission."

It is needless to add more to show that his testimony deserves no consideration. This statement should appear in the hearings just after Rear Admiral Fiske's letter of May 28, 1920.

Sincerely, yours,

JOSEPHUS DANIELS.

HON. FREDERICK HALE,
Chairman of Naval Subcommittee,
United States Senate.

This is the statement from Admiral Fullam [reading]:

WASHINGTON, D. C., May 24, 1920.

From: Rear Admiral W. F. Fullam, United States Navy, retired.

To: The subcommittee of the United States Senate investigating the conduct of the war.

Subject: Charges and insinuations made by the Secretary of the Navy as to the acts and motives of Rear Admiral Fullam concerning the reorganization of the Navy Department, and the preparedness of the Navy for war.

1. It has come to my attention that the Secretary of the Navy in his written statement to this committee, under certain captions such as: "They wish to destroy the American policy of civilian control;" "Obsessed with ideas of Prussianizing the American Navy," etc., has linked my name with the names of Admiral Fiske and others and has charged, either directly or indirectly, that I am a "disciple of Von Tirpitz"; that I am by implication classed with those who "have frankly avowed their advocacy of Prussianizing the Navy"; that they seek to "camouflage their Prussian ideas," etc.

2. The seriousness of these charges is perfectly evident. They have been published in the press all over the country, and my name has appeared in the newspapers in connection with these published statements.

3. As a citizen of the United States, and as an officer of nearly 47 years service in the Navy, I conceive it to be my right, as well as duty, to most emphatically deny the justice and the truth of these charges, and to declare that these statements and insinuations as to my conduct and motives regarding the organization of the Navy Department and the preparedness of the Navy for war have not the shadow of a foundation in fact.

4. In order that I may justify myself before the Congress, the people, and the Navy, after serving them loyally since the day I entered the Naval Academy in 1873, I beg to submit as briefly as possible a true account of my work and the motives that have inspired all my acts and thoughts in connection with the two great subjects, organization and preparedness, the two problems which, if not properly solved, must inevitably leave the Navy in a state of unreadiness for war and thus imperil the safety of the country.

5. In the beginning, let me say that I deem it an honor to have my name linked with the names of Fiske and Sims, and the other officers who have testified as they have before this committee in favor of reorganization and preparedness, and in criticism of the organization and policies of the Navy Department, which, I affirm, sent the Navy and the fleet of the United States into the World War unprepared as a whole, in personnel and material, and in all other practical details that have a direct bearing upon the instant readiness of the Navy for battle—the one condition above all others which every naval officer should constantly advocate, in that this condition of readiness:

constitutes the only return the people can get for the annual expenditure of hundreds of millions of dollars in the maintenance of a Navy.

6. In this connection I beg to emphasize the fact that naval officers are educated at great expense to the Government of the United States and for but one purpose—to prepare and maintain themselves and the Navy in a condition that will most surely and effectively defend their country in war. If they fail in this they fail to faithfully and properly perform the one duty that justifies their existence. They have no right to neglect this sacred duty, and then accept the salaries and emoluments which the Navy offers them and the ultimate benefit of the retired list. They should have the courage to stand squarely for this principle at all times, regardless of any personal discomfort or any personal disfavor or disadvantage which they may incur by such devotion to duty. The disfavor that results from a manly refusal to surrender a principle is a distinction, and the greater the disfavor the greater the distinction.

DEPARTMENTAL ORGANIZATION.

7. It will not be denied that departmental organization is the key to naval efficiency and naval preparedness. The officers and men of the Navy will find themselves powerless to prepare for war or to wage war with the maximum of success if the Navy is handicapped by a faulty organization of the Navy Department. The department deserves the severest possible censure if it neglects to coordinate all agencies, and if it falls by its acts and policies to inspire the constant effort, the constant zeal, and the constant enthusiasm of the Navy personnel in promoting real fighting efficiency. And the result may be still worse if officers are professionally discouraged, if their intelligence is not utilized, if their efforts and abilities are not rewarded, if their good will and respect are alienated and their confidence destroyed.

8. It was for patriotic reasons that Admirals Mahan, Luce, Taylor, and other distinguished officers of the Navy have unceasingly advocated a thorough reorganization of the Navy Department almost from the time of the Civil War to the day they died. In this they did not, nor did those who followed them, reflect upon nor deny the necessity for the bureaus and other agencies of the Navy Department. They fully recognized the need of, and the excellent work of these bureaus, as well as the efficiency of their chiefs. They sought to destroy nothing, and they did not advocate the abolition of any agency, but they simply sought to so group and coordinate these agencies that the whole machine might work as a unit. Still less did these distinguished men and their disciples advocate the slightest possible diminution in the authority, the necessary and supreme authority, of the Secretary of the Navy.

THE MAHAN-MOODY COMMISSION.

9. After many years of vain effort by these officers and by various Secretaries of the Navy to secure from time to time a reorganization of the Navy Department, President Roosevelt, in the fall of 1908, became actively interested in this important subject. He was urged by several naval officers, especially by his aide, Capt. (now Rear Admiral) Cameron McRae Winslow, and Lieut. (now Rear Admiral) William S. Sims, to appoint a commission to formulate a plan of departmental reorganization.

10. This commission was appointed early in 1909. It is interesting to note at that time Lieut. Sims was very active in this movement and worked unceasingly in the support of President Roosevelt's plan for naval reforms. I have many letters from him dating from October, 1908, until the commission was finally appointed. Among them is the following which I beg to insert as proof of his connection with this most important reform:

Confidential.

WASHINGTON, D. C., January 6, 1909.

MY DEAR FULLAM: Your letter of yesterday just received. I have been absolutely up to my eyes in work in reference to the famous commission.

If you will go and see Admiral Luce he will show you letters that I wrote to him yesterday and the day before and which make it appear that the commission is to be appointed. The consent of Justice Moody, Mr. Morton, and others has been obtained, and Admiral Luce, Capt. Mahan, Admiral Folger, and Admiral Evans have been ordered to be on the commission. The President insisted upon the latter name.

He sent an order this morning to the Navy Department that he wished you notified that you would act as secretary to the commission, but not as a member.

You will see by the letters I wrote to the admiral, that the commission is now recommended by the Secretary, so that there seems hardly any possibility of the thing falling through again.

In view of the above information I think you may reasonably conclude to cheer up!

Very sincerely, yours,

WM. S. SIMS.

11. In compliance with orders from President Roosevelt the commission met at the Navy Department and took up its work. As stated in my previous testimony I personally furnished each member of the commission with files and data showing the details of organization of the navies of Great Britain, Germany, France, and Japan.

12. There being but a few weeks before the end of President Roosevelt's administration, the commission wishing to submit a report before March 4, 1909, confined itself to a mere outline of an organization and asked Admiral Mahan to formulate a declaration of principles which in his opinion should form a basis for departmental organization. It is not necessary to file at this time all the subject matter in the work of the commission. It will suffice to read and insert the statement of principles prepared by Admiral Mahan, which was enthusiastically approved, signed by all members of the commission and forwarded with their report to the President, who approved of the whole and sent the following letter of appreciation to Justice Moody, the president of the commission:

THE WHITE HOUSE,

Washington, D. C., February 26, 1909.

SIR: I have received the three reports transmitted by the commission. I can not too highly thank the commission for the work it has performed, and I appreciate to the full the personal sacrifice involved in such performance. I regret that it is not in my power to do no more than to thank you in behalf of the public for a great public service. In accordance with your request the military members of the commission will be relieved from further duty and the civilians are hereby excused.

Again most heartily thanking you, believe me,

Sincerely, yours,

THEODORE ROOSEVELT.

HON. WILLIAM H. MOODY,

Associate Justice, Supreme Court of the United States.

NOTE.—This was written by Admiral Mahan, and approved by the commission:

WASHINGTON, D. C., February 20, 1909.

GENERAL PRINCIPLES GOVERNING NAVAL ORGANIZATIONS.

To the PRESIDENT:

(1) The office of the Secretary of the Navy being executive in character, nothing should be admitted into an organization of the department which would qualify his authority or diminish his ultimate responsibility. He has been in the past, and in the future, should be a civilian. He is the representative of the President, the constitutional Commander in Chief of the Army and Navy, under whose direction his authority is exercised.

(2) The duties in charge of the Secretary divide under two principal heads, closely related but generically distinct, civil and military.

The civil duties embrace the provision or preparation of all the material of war. This is the function of the present bureaus.

The military duties concern the use of that material, whether in war or in such exercises as conduce to fitness for operations of war.

For the direction of these military duties no subordinate provision corresponding to the bureau on the civil side exists in the present organization established by statute.

(3) The discharge of both these classes of duty involves a multitude of activities, quite beyond the immediate personal knowledge and supervision of a single man. This necessitates a subdivision of the duties by which means the supervision of the Secretary is exerted through the medium of responsible

subordinates. In this subdivision the principle of undivided responsibility, within the appointed field of subordinate supervision, should obtain, as it does in the superior office of the Secretary.

The bureau system, as now established by law for the civil activities of the department, insures for each bureau this undivided responsibility, qualified only by the authority of the Secretary, which, if exerted, does not divide the responsibility but transfers it to the Secretary himself. Independent authority with undivided responsibility, though in principle proper, suffers historically from intrinsic inability to cooperate where a number of such independent units are present. The marshals of the First Napoleon—especially in Spain—in the absence of the emperor, offer a familiar illustration. The bureau system, as at present constituted by law, contains no remedy for this inherent defect.

(4) The coordinating power is in the Secretary's authority; but, owing to the shortness of tenure in office, and to the inevitable unfamiliarity with naval conditions with which an incumbent begins, authority, though adequate in principle, is not so in effect. This inadequacy consists in lack of personal familiarity with the subjects before him, not merely severally, but in their collective relations; in short, lack of specific knowledge and experience. The organization should provide him with such knowledge and experience, digested formally, so as to facilitate his personal acquirement. In short, an advisory body, equipped not with advice merely, but with reasons. In order to avoid the interruption of continuity attending each new administration, entailing the recurrent temporary unfamiliarity of each new Secretary, it is expedient that this advisory board be composed of several persons; but while this provision would insure the continuity which inheres in a corporate body (in this case continuity of knowledge and of progress), the principle of undivided responsibility would dictate that one only of them should be responsible for the advice given to the common superior—the Secretary.

(5) As regards the composition of the advisory body, the principles to be regarded are two: (A) The end dictates the means; (B) responsibility must be individual, in advice as well as in executive action.

A. The end is efficiency for war. The agents in war are the military naval officers. Their profession qualifies them best to pronounce upon the character of the preparations for war of every kind, including not only schemes of campaign and tactical systems but the classes, sizes, qualities, and armaments of ships of war.

What the Secretary needs, specifically and above all, is a clear understanding and firm grasp of leading military considerations. Possessed of these, he may without great difficulty weigh the recommendations of his technical assistants, decide for himself, and depend upon them for technical execution of that which he approves.

However constituted in detail, the advisory body should be taken entirely from the class to which belongs the conduct of war, and upon whom will fall in war, the responsibility for the use of the instruments and for the results of the measures which they recommend.

B. As regards individual responsibility for advice, it is suggested that the Secretary of the Navy nominate to the President the officer whom he deems best fitted to command the great fleet in case of war arising; and that this officer, irrespective of his seniority, should be head of the advisory body. He alone should be the responsible adviser of the Secretary.

The provision of a responsible adviser does not compel the Secretary to accept his advice, nor prevent his consulting whosoever else he will. The provision suggested does not limit the authority of the Secretary; but it does provide him with the weightiest and most instructed counsel, and it lays upon the prospective commander in chief the solemn charge that in all he recommends he is sowing for a future which he himself may have to reap.

An essential principle in the constitution of such an advisory body is that the majority of the members should be on the active list and should go afloat at not infrequent intervals; and, specifically, the head of the body, the prospective commander in chief, should during the summer months take command of the concentrated battleship force for maneuvers, target firing, and practice of every kind. This will insure also his sustained familiarity with administrative routine of the fleet and other practical matters.

(6) In the two principal classes into which the duties of the Secretary of the Navy divide, civil and military, as enunciated in section 2 above, the word "civil" corresponds largely to the activities known as technical, and there is no reason apparent why the same principle of undivided immediate responsibility

should not be realized in the Navy Department in two chief subordinates, responsible the one for military supervision, the other for technical supervision, and for all information and advice given to the Secretary under these two heads. It is, of course, apparent that a perfectly suitable Secretary may come to his office with as little previous knowledge of the kind called technical as he has of military; nay, he may be perfectly efficient and yet not acquire in his four years of office either the technical or military knowledge presumable in men whose lives have been given to the two professions. Under the most favorable conditions every superior must take decisions largely on advice, which means not accepting another's opinion blindly, but accepting statements of facts and weighing reasons.

The principle of the Secretary's ultimate individual responsibility dictates that he be at liberty to consult as many advisers as he thinks necessary, but the principle of the individual responsibility of two chief advisers, for the advice given, tends to insure the most exhaustive consideration on the part of men selected for their special competency. Careful consideration with special competency gives the best guaranties for advice, and a Secretary overruling it would do so under the weightiest sense of personal responsibility.

As a matter of detail, but yet so broad in bearing as to amount to a principle, it may be noted that while the adjective "military" is somewhat narrow in application, "technical" is extensive in scope. Naval construction, ordnance, and steam engineering are all technical professions. The selection of a chief assistant to the Secretary might, therefore, be made from the responsible technical experts of the Navy, under any of the three heads named, or a competent civilian engineer and naval architect may be appointed as Second Assistant Secretary of the Navy, under whom the four technical bureaus may be coordinated.

(7) In conclusion, it should be distinctly laid down as a cardinal principle that no scheme of naval organization can possibly be effective which does not recognize that the requirement of war is the true standard of efficiency in an administrative military system; that success in war and victory in battle can be assured only by that constant preparedness and that superior fighting efficiency which logically result from placing the control and responsibility in time of peace upon the same individuals and the same agencies that must control in time of war. There should be no shock or change of method in expanding from a state of peace to a state of war. This is not militarism; it is a simple business principle based upon the fact that success in war is the only return the people and the Nation can get from the investment of many millions in the building and maintenance of a great navy.

We have the honor to be, very respectfully,

William H. Moody, associate justice, Supreme Court of the United States; Alston G. Dayton, judge of superior court, State of West Virginia; Paul Morton; S. B. Luce, rear admiral, United States Navy, retired; A. T. Mahan, rear admiral, United States Navy, commanding North Atlantic Fleet; William M. Folger, rear admiral, United States Navy, retired; William S. Cowles, rear admiral, United States Navy; William F. Fullam, commander, United States Navy, secretary.

13. Special attention is invited to the first and the last paragraphs of this remarkable and dignified statement of governing principles. In the first paragraph the greatest possible care is taken to emphasize the supreme authority of the Secretary, namely, "Nothing should be admitted into an organization of the department which would qualify his (the Secretary's) authority or diminish his ultimate responsibility." The supremacy of the civil power was thus clearly emphasized, and it always has been emphasized and always will be by the most determined advocates of departmental reorganization. Any insinuations to the contrary are absolutely groundless and reflect upon the loyalty of those who wish to see the Navy so organized that it may pass from a state of peace to a state of war without a jar in its machinery.

THE SWIFT BOARD—THE AID SYSTEM OF SECRETARY MEYER.

14. Inasmuch as the Mahan-Moody commission submitted a mere outline of organization, Secretary Meyer appointed a board, of which Admiral Swift was president, to complete the details and submit a report. This resulted in the aid

system adopted by Secretary Meyer. Although this system was not legalized by Congress, it served to coordinate the bureaus under the aids and thus secure many of the benefits of good organization. This system was in great measure abolished by Secretary Daniels in the spring of 1915. He appeared to disapprove of it, and in an article published in Hearst's Magazine in 1917, during the war, he stated that when he entered the department he found it "encumbered" by a system of aids. In effect, this was a condemnation of the work of Admiral Mahan, the greatest authority on naval organization in this or any other country. That the Navy Department should find itself "encumbered" by the principles of Mahan may well be viewed with astonishment.

15. Previous testimony before this committee describes the legislation initiated by Admiral Fiske and Capt. Hobson resulting in the present Office of Operations. It has been shown that by the insistence of the Secretary the word "responsibility" was stricken from the bill as originally framed by Admiral Fiske and Capt. Hobson, although it had been unanimously approved by the Naval Committee of the House. In omitting the word "responsibility" the Chief of Operations was left with no real or direct authority over the bureaus in his work of preparing for war and in directing the operations of the fleet. In other words, this left the Office of Operations somewhat in the condition of Hamlet, with Hamlet left out. As a matter of fact, owing to this unfortunate change in the law, there was, in many respects, less coordination than under the old aid system of Secretary Meyer. In other respects there was an improvement. But in any case the Office of Operations appears to owe its existence to Admiral Fiske and Capt. Hobson.

THE CHARGE OF PRUSSIANIZING THE NAVY.

16. Referring to the charge that Admiral Fiske and myself sought to Prussianize the Navy in our advocacy of such reorganization as would put back the important provision cut out by Secretary Daniels, a remarkable situation now presents itself in the testimony before this committee. It appears that Admirals Fletcher, Benson, Wilson, Rodman, Strauss, McKean, and Capt. Pratt in this year, 1920, after the World War, are found strongly insisting that the Chief of Operations shall have "responsibility" and "authority" over all bureaus and other departmental agencies. In other words, they now favor the principles originally advocated in the Fiske-Hobson bill, which was stricken out by Secretary Daniels. In this stand, therefore, all of these seven officers, who are highly praised by Secretary Daniels, and who testified in behalf of the Navy Department, are now found in the ranks with Admiral Fiske. Admiral Sims, and myself, favoring an organization which Secretary Daniels condemns. They, too, appear to be in the category of "disciples of Von Tirpitz," who seek to "Prussianize the Navy of the United States." There is, of course, one difference—Fiske, Sims, and I ventured to advocate this principle before the war, while these distinguished officers advocate it after the war. We are the ante mortem and they the post-mortem advocates of this principle. They are advocating in 1920 what Admiral Sims sought to secure in 1908. Thus they are 12 years behind Admiral Sims and several years behind Admiral Fiske, unless, perchance, they may have silently and secretly advocated this principle in previous years, unknown to the Navy.

17. We can only surmise as to the reason for the opposition to Secretary Daniels on the part of these officers at this time, after they have testified so strongly as to the efficient working of the Navy Department organization during the World War. The situation is somewhat bewildering and demands explanation on their part. If the Navy Department prepared us for war and carried us through the World War with unqualified success, why change its organization? Why should we gild pure gold?

ADMIRAL BENSON AND CAPT. PRATT ON DEPARTMENTAL ORGANIZATION.

18. In further investigation of this subject we find in the testimony of Capt. Pratt (Part 1, p. 4), the following remarkable statement: "Nor was the organization or administration of the department at home such that it lent itself to the most efficient handling of a great war at the beginning."

19. And again on page 8, of Part 1, we find this illuminating declaration: "The reorganization and expansion of the Office of Operations and of the bureaus had to be undertaken. The coordination of the bureaus with this

office had to be developed; the methods of administration had to be divested of their prewar conservatism, the red tape abolished, and more authority given to subordinates in matters of detail," etc. There would appear to be little doubt as to the meaning of these words. Capt. Pratt was Admiral Benson's assistant in the Office of Operations. In this one statement he has admitted that we were practically forced to reorganize the Office of Operations and the whole Navy Department after we entered the World War. His reasons for joining the "disciples of Von Tirpitz" are thus clearly given, and must be recognized as quite sufficient. Capt. Pratt clinches the evidence of departmental inefficiency in the following pathetic review found on pages 14 and 15, of Part 5:

20. "You have by law appointed a head, but have not definitely fixed degrees of responsibility. As the head of an organization there is the perfectly natural inclination to perform such acts as in his judgment he deems wise, but upon these acts depends the entire present and future of our Naval Establishment, its development, maintenance, and operation. To efficiently effect this requires the most intimate knowledge of the Navy and the power to coordinate its many activities. As its development, maintenance, and operation is conducted, so fares the fate of the country's first line of defense.

"To administer the duties of chief executive of this department there is called a civilian. Gentlemen, please do not misunderstand me. Under no circumstances should the supervisory head be other than a civilian, who in this capacity is best able to coordinate the Navy's activities with Congress, and who in his person is the strongest connecting link between us and the people. He comes to the office as an individual, a splendid man, able, efficient, highly trained in some subjects, but not technically trained in the activities of the Navy, nor a student of the art of war. This system functions after a fashion in peace, but it does not function when preparation for war becomes necessary, nor does it function in war. It is necessary that at the outbreak of hostilities the military head should assume the direction of and responsibility for the conduct of military operations, for whose preparation he has had, by law, no direct control nor authority to coordinate in peace. Such is the system we work under to-day, and did at the outbreak of war. Thanks to the voluntary cooperation of every distinct departmental organization, including the Secretary, the Navy was able to pull itself together and to work exceedingly well in war.

"If any lack of preparation existed within the Naval Service prior to our entry into the war, if any lack of harmony existed then or exists now within our Navy, it can be laid more justly to the system or organization the department labors under than upon the shoulders of any individual."

This frank and manly admission by Capt. Pratt drives the last nail into the casket of a defunct administrative system which violated Mahan's principle that "there should be no shock or change of methods in expanding from a state of peace to a state of war."

21. But the discussion of this important subject would not be complete without the testimony of Admiral Benson, who served as Chief of Operations during the World War. When asked what the Navy Department would have done without the Office of Operations the admiral replies, "The good Lord only knows."

22. In reply to further questions regarding the status of the Chief of Operations, Admiral Benson declared as follows:

"The CHAIRMAN. But he (the Chief of Operations) should have the authority?

"Admiral BENSON. He should have the authority to coordinate all of the technical activities of the Navy Department, and he should be held responsible for their efficient coordination and cooperation.

"The CHAIRMAN. And, having that authority and that responsibility, he should be free to give his views to Congress, should he not?

"Admiral BENSON. He should, in that position; and there should be some arrangement by which he should be kept fully informed as to the policies of the Government—I mean the political policies of the Government; what international problems were pending, what the international policy of the administration is at the time, and changes that might involve the distribution of forces. But he should be particularly held responsible for the proper and efficient coordination of all the naval activities. But he should have the authority and it should be understood. For instance, he should be able to give directions to all the bureau chiefs. In addition to material and operations, he should particularly have directly under him the question of personnel. I think he should have a voice in the selection, and be almost responsible for the selection, of

all officers for prominent positions, both in the Navy Department and in the fleet.

"The CHAIRMAN. How do you mean, almost?"

"Admiral BENSON. Of course, I do not want to sidetrack the Secretary. He, as the head of the department, of course is held responsible to the country for the department. But it should be so well established that he be the Chief of Operations, has the right that the Secretary would not go counter to it unless there were most excellent reasons. You might possibly get a Chief of Naval Operations that was not efficient, or he might have prejudices, and he might have all kinds of things, and there should be some check on him, and the Secretary should have that authority, because in the last analysis the Secretary is responsible.

"But I do think that in order to have the organization what it ought to be that change should be made. I think I can illustrate my point. If you will remember, the administration came into power on the 4th of March, 1917, and we went to war on the 6th of April. If you had had an entirely new Secretary come in on the 4th of March, with the old organization before the Office of Operations was established, you would practically have had nothing to coordinate the technical activities of the department except a new Secretary of the Navy.

"The CHAIRMAN. And is that true of your organization you now have?"

"Admiral BENSON. It is not true now, but we have not gone far enough, in my opinion. I think we saved the day—I dislike to refer to it, as I happened to hold the position, but I have a firm conviction in my own mind that what saved the day in this whole war, certainly so far as we are concerned, was the establishment of the Office of Operations in the work it did during the war; but I think it ought to go further and along the lines that I have stated.

"The CHAIRMAN. You say that the Chief of Operations should have practically the power of appointing his subordinates in Operations?"

"Admiral BENSON. For instance, the chiefs of bureaus. I think he should have a decided say in who should be chiefs of bureaus.

"The CHAIRMAN. But always subject to the approval of the Secretary?"

"Admiral BENSON. Always subject to the approval of the Secretary; yes."

23. In answer to the final questions as to the desired knowledge of the Chief of Operations concerning the policies of the administration, Admiral Benson testified as follows, on pages 4547 and 4548:

"The CHAIRMAN. We would like your ideas on the matter, concretely put, so that there can not be any mistake about them.

"Senator BALL. May I ask a question here?"

"The CHAIRMAN. Yes."

"Senator BALL. He—the Chief of Operations—would be a part of the administration?"

"Admiral BENSON. Yes; but as he is now, I understand he is not necessarily kept informed of all the different policies.

"The CHAIRMAN. Is the Secretary?"

"Admiral BENSON. I assume, of course, being a member of the Cabinet, that he is.

"The CHAIRMAN. Is not that sufficient, then, if the Secretary of the Navy is kept informed?"

"Admiral BENSON. If the Secretary always keeps the Chief of Naval Operations fully informed, however he may get it. That is a detail, as to how he should get it; but it should certainly be understood that the Chief of Naval Operations is kept informed.

"The CHAIRMAN. If the President has private plans about foreign policies, and he does communicate them to the Secretary of the Navy, do you think that he should also be required to communicate them to the Chief of Operations, or through the Secretary to the Chief of Operations?"

"Admiral BENSON. I think if there is any question at all, sir, that the Chief of Naval Operations is not being kept fully informed, he should have the privilege of being informed by the President of the United States, if necessary, and he should attend Cabinet meetings where policies of that kind are discussed."

24. It is important to note and analyze this testimony of Admiral Benson after his experience of four years as Chief of Operations. It must be clear that he has out-Elsked Admiral Fiske in his recommendations concerning the responsibilities, the authority, and the general status of the Chief of Operations, in that he makes the suggestion that the Chief of Operations shall have

the right to sit at Cabinet meetings. It can only be surmised that his experience in attempting to run the Office of Operations in its present condition, with no real power to coordinate departmental agencies, has forced him to place himself at the head of the "disciples of Von Tirpitz." Has not Admiral Benson completely deserted the Secretary of the Navy in this campaign for reorganization? I forbear to comment further than to submit that the officers who humbly and conscientiously sought to reorganize the Navy Department before the war are not more subject to condemnation in the eyes of the people than those who advocate the same policy after the war. It would appear that these gallant officers, headed by Admiral Benson, in a tardy desire to "Prussianize the American Navy," are each of them subject to the charge of condemning the Navy Department in this matter. The words of sorrowful reproach, "and you, too, Brutus," might be appropriately used by the Secretary of the Navy in their cases.

25. In concluding the defense of my acts in connection with the respectful advocacy of departmental reorganization, I beg once more to declare my hatred of anything that savors even remotely of Prussianism and a desire on my part to see the United States Navy so organized and so ready at all times that it can smash Prussianism wherever and whenever it appears with the least possible delay.

It is respectfully submitted that this is true Americanism. If not, what is Americanism?

PREPAREDNESS FOR WAR.

26. In his testimony the Secretary states that "Admiral Fullam told how the officers in the Pacific worked to get armored cruisers ready for war." This is quite true. But this is not all that I said. I also stated that the officers succeeded in getting these ships away from the docks not by reason of assistance from the Navy Department but in spite of the policy of the department. I stated that the department initiated no means to provide personnel and failed to coordinate with the bureaus for 11 long months as regards the work of getting these ships materially ready for war. I gave conclusive evidence of these facts. Why did the Secretary fail to quote me fully in this respect?

27. I can not permit my name to be used in apparent defense of the Navy Department's acts and policies between 1915 and 1917, nor in support of the astounding claim that the Navy and the fleet were ready for war in 1917. On the contrary, I affirm that the Navy was unprepared for war in every possible respect—personnel, matériel, aviation, organization, and as to the conditions in the fleet taken as a whole. It is my opinion that any naval officer who comes before this committee and states that the Navy was prepared for war in the spring of 1917 is contributing to a propaganda which is calculated to deceive the good loyal people of this country, and I base this statement upon the facts brought out in the testimony of Admiral Benson, Capt. Pratt, and others who testified for the Navy Department and ignoring the testimony of those officers who have supported Admiral Sims.

28. It is true that the officers did work most unrelentingly to get the armored cruisers and other vessels away from the docks; but they could not get these ships completely ready for war, or for battle, because there was a fatal shortage of personnel, officers, and men. And as a result of this shortage right up to the declaration of war, I can personally and solemnly swear that not less than 15 armored and other cruisers left the Pacific or passed through the Pacific from the Asiatic station in a criminal condition of unpreparedness for battle. They were either not fully officers or manned or their crews were so largely composed of recruits and officers of little experience that they could not have met a fully manned enemy vessel of the same class with any reasonable hope of success in battle; and this, too, notwithstanding the fact that the officers and men in our Navy have no equal in bravery, ability, and devotion to duty. There are certain things that are impossible in connection with readiness for battle. Both Admiral Badger and Capt. Pratt have told you that it would take from three to six months to prepare a half-manned ship for battle against a fully manned ship. This was exactly the case with these ships. Is this condition of preparedness, considering that the world had been on fire for three years, satisfactory to the red-blooded people of this country or to the officers of our Navy? I can not believe it, and I will not believe that the people will condemn an officer for telling the whole truth. I believe the people wish to know the truth.

VITAL IMPORTANCE OF PERSONNEL.

29. The personnel is the key to preparedness for battle. Strictly speaking, the fleet is the Navy. The Navy Department is not the Navy. We may say that in war the Navy is the part that fights. And the part that fights is the part that floats.

The fleet and the ships are the only parts of the Naval Establishment that float and do the fighting. And they can not fight without officers and men. And officers of the Navy can not unaided manufacture personnel after war begins—personnel that is prepared to go into battle. Here is where the Navy Department comes in. The Navy Department alone can adopt the policy and insist upon the means that will secure the officers and men necessary to enable our ships to fight. If the Navy Department fails to do its duty, the fleet will not be manned and it can not fight—not with certainty of success, not as the people of this country want it to fight. Right here we must remember that there were no fleet actions and no battles between our ships and German ships in this war.

30. I will briefly cover the question of personnel shortage. In November, 1914, the General Board informed the Navy Department that we needed 19,600 men to man our fleet, and it stated the invulnerable principle that ships without men were mere "masses of steel," "useless for purposes of war," and that such a condition would lead to a "false sense of security." In the spring of 1915 the commander in chief of the Atlantic Fleet, the most important unit in our whole Navy, stated that he needed 5,000 men to properly man his force. In the same year Capt. Taussig states that we had—

(a) Forty-two ships with only three-tenths of a peace complement.

(b) Sixteen ships with only one-tenth of a peace complement.

(c) Thirty-eight ships out of commission with no personnel on board. And that there was no personnel available for these ships.

It is recorded that Capt. Taussig wrote an article in 1915 on the needs of the Navy as to personnel and the Secretary of the Navy forbade its publication.

31. On March 6, 1916, after working for six months to get the armored cruisers away from the docks in the Pacific, I received the following letter from Capt. J. A. Dayton, Acting Chief of Personnel:

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., March 6, 1916.

DEAR ADMIRAL: Your letter of February 24 has been received. Rear Admiral Blue is on leave; therefore, I am answering it.

I regret we can not give you the officers and men necessary to put your excellent scheme into effect. There are no officers of the rank of commander available, and the only way to get officers below the rank for commander would be to take them from the battleships of the Atlantic Fleet, which, of course, would not be practicable. In regard to the men, we have got to provide crews for the *Nevada*, *Pennsylvania*, *Oklahoma*, *Wainwright*, *Porter*, *Tucker*, *Maumee*, *Sampson*, *Rowan*, *Davis*, and about 12 submarines within the next six months; and, in addition, the Naval Academy practice squadron will have to be filled up, so the situation is rather hopeless from our point of view. However, we will do the best we can.

With kind regards, I am,

Very sincerely, yours,

J. H. DAYTON.

Admiral WILLIAM F. FULLAM,

United States Navy, United States Pacific Reserve Fleet,

San Francisco, Calif.

32. On July 5, 1916, after repeated requests for officers for the armored cruisers, I received the following letter from Rear Admiral Blue, Chief of the Office of Personnel:

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., July 5, 1916.

MY DEAR ADMIRAL: Replying to your letter of June 20. I regret that it is impracticable to send any additional officers to the reserve ships unless mobilization takes places and retired officers are ordered to duty and officers from shore are ordered to sea.

Sincerely, yours,

VICTOR BLUE.

Rear Admiral WILLIAM F. FULLAM, U. S. N.,

Commander Reserve Force, Pacific Fleet.

33. On March 24, 1917, two weeks before war was declared, I sent the following telegram to the Navy Department:

MARCH 24, 1917.

From Flag *Pueblo* to Secretary of the Navy via MPG.:

In view of the need of men in the Reserve Force will the department authorize me to stimulate recruiting on this coast by stating to the press over my signature the number needed to fully man ships? I am advised that the result may be excellent. Request telegraphic reply.

MARCH 25, 1917.

From *Bunra* to commander Reserve Force via NPG.:

You are authorized to publish the fact that the President has signed an Executive order calling for an emergency increase to 87,000 enlisted men. Give widest publicity. You are authorized to state number of men needed in your force and to enlist and retain on board men to fill vacancies.

35. In response to these instructions, I at once appealed to Pacific Coast States for from 3,000 to 5,000 men immediately needed to man reserve ships, including the armored and other cruisers—the best cruisers in our Navy, ships that should have been with the fleet in a condition of instant readiness for war. I repeat that these ships were not ready for battle. They were only half manned. In the words of the General Board, they were in great measure “masses of steel” approximately “useless for purposes of war,” and so far as their readiness for battle was concerned their condition could only give a “false sense of security.” This is only a small part of the evidence, but it will suffice to prove beyond cavil that we were fatally short of personnel in 1917. Is such a Navy ready for war?

READINESS OF THE BATTLESHIP FORCE.

36. Admiral Mayo, Admiral Wilson, Admiral Rodman, and Admiral Plunkett have testified and have been quoted to the effect that the battleships when they came north from Cuba in the spring of 1917 were in a high state of efficiency, and that their record at target practice was remarkable. Grant all this. But how long did they remain in this high state of battle efficiency? Why was the testimony on this point omitted or clouded? It is known that many trained men and nearly half the trained and experienced officers of the battleship force of the Navy were taken off to man merchant vessels, destroyers, and other ships, leaving this force—the backbone of the Navy—in a condition of unreadiness for battle. Of what avail is it that these ships were ready for battle in February if they were not ready in April? This condition reminds us of the sorrowful wall of a chief of bureau who once said: “I had my bureau in perfect working order, with everything running smoothly, when along came the Spanish War and smashed up everything.” Admiral Plunkett, the director of target practice, stated that “It takes years to train new officers and men to conduct the gunnery of a modern battleship in battle.” Even supposing that it can be done in a few months, we were not ready for battle after these men and officers were taken off our battleships. If it is claimed that we were ready at that time, we can safely abolish the Naval Academy and waste less time and ammunition in target practice.

GENERAL UNREADINESS FOR WAR.

37. To substantiate the statement that the Navy was completely unready for war in the spring of 1917 the fatal deficiency in personnel has been demonstrated. To complete the proof it is necessary to quote only from the testimony of Admiral Benson and Capt. Pratt of the Office of Operations, the two chief advisers of the Secretary of the Navy.

38. From the testimony of these two officers it had already been shown that the Navy Department was not properly organized for conducting a war. Speaking of our failure to get ships quickly into the war zone, Capt. Pratt says, on page 4, Part 1: “Owing to our previous lack of preparedness in material, it was not possible to place them at the front and ready to operate as soon as desired.” And further he says: “The failure to get into the war immediately and in full force upon the declaration of war is not the fault of Operations or the failure to recognize the character of the war and where it was being waged, but were for the most part due to natural causes and to causes which antedated our entry into the war,” etc. Of course, it is admitted that the causes antedated the war—the causes were unpreparedness, no effort to prepare, no

of unrestricted sinkings in February, 1917. As though the sinking of the Lusitania with 1,200 helpless men, women, and children was not a sufficiently "unrestricted" sinking, a sufficiently unrestricted act of piratical brutality to justify a red-blooded American—especial a naval officer—to advocate preparedness. This theory would be an appropriate epitaph to mark the last resting place of pusillanimous pacifism. It is believed that those officers who have permitted themselves to entertain such ideas as this will be busy explaining their reasons therefor during the rest of their lives in the Navy.

44. There were several examples of harsh personalities and thinly veiled insults to Admiral Sims in the course of the testimony before this committee. It is regrettable that Admiral McKean should have felt it incumbent upon him to take Admiral Sims to task for saying that naval officers would not again permit our Navy to go into a war as unprepared as we were in 1917. In condemning this statement of Admiral Sims, Admiral McKean said that naval officers would take no such attitude; that they would "obey orders"; that they were "neither Prussian Militarists nor Russian Bolsheviks." It is true that naval officers will obey orders; it is true that they are not Prussian Militarists; it is true that they are not Russian Bolsheviks. But it is also true that Russian Bolsheviks, effeminate pacifists, anarchists, extreme socialists and all people of that ilk will be found lined up shoulder to shoulder against preparedness and proper organization for war and in enthusiastic support of all pacifistic movements necessary to prevent this country from defending its life and its honor. It is believed that officers of the Navy will be found on the right side of this question for all time, and it may be assured that while doing their duty in advocating preparedness before rather than after war begins, they will never fail to recognize that the civil power is supreme in the United States. They will have, and should have, opinions and duties concerning measures that are absolutely necessary to defend their country; and the best citizens of the United States will be the first to condemn naval officers for surrendering their independence of thought and for subserviently assuming a pacifistic attitude in a matter that demands courageous conduct.

THE HUMILIATION OF UNPREPAREDNESS.

45. In the truthful story of our naval unpreparedness we will find that facts may or should prevent the humiliation of this country in the near future. It is admitted that sea power exercised a determining influence in the war. It is admitted that but for the control of the sea by the British fleet in the beginning, the Central Powers would have won the war within the first few months. It is of importance for us to note that Capt. Pratt, in his testimony, states that the German fleet being "contained" or completely blockaded by the grand fleet, the United States was free to leisurely and safely prepare its Navy for war! He doubtless knew that our battle fleet was practically interned for some months after its personnel had been decimated in order to man other vessels! And in this somewhat humiliating admission Capt. Pratt finds himself supported in some measure by the following extract from the testimony of Admiral Wilson (p. 2247). Referring to our naval strength in 1917, the following testimony is in evidence:

(45) "Admiral WILSON. But I think we would have had no fear of any other navy besides the British Navy.

"Senator PITTMAN. That is very wise, in regard to the use of that word 'ample,' because we have other appropriation bills coming.

"The CHAIRMAN. Do you think that would have been true in April, 1917, if the British Navy had not cooped up the German fleet?

"Admiral WILSON. Mr. Senator, we never gave that one thought, because I knew that after the German fleet had made an attempt to get through the British fleet it would not have taken much to fix it.

"The CHAIRMAN. So that you depended on the English fleet as the real safeguard—and our fleet was not prepared to meet the German fleet at that time if it had had a free exit and could have gotten over here?

"Admiral WILSON. I never stopped to think about that, because I knew that was never going to happen."

47. From this it would appear that Admiral Wilson, while testifying against Admiral Sims, was forced to admit with Capt. Pratt that we depended upon the British fleet "as the real safeguard" and he guessed that "everybody did"! Thus we see, through the thick haze of irrelevant talk, extravagant self-praise and violent denunciation, and behind the awful protecting barricade of departmental papers, reports, so-called plans, etc., which have nothing whatever to do with the case, the bald and simple truth that our Navy was so unprepared for war that Admiral Wilson "guessed that everybody" thought or recognized that we depended upon the English fleet as a "safeguard" against the Germans! Do the people of the United States wish to perpetuate the policies and the kind of naval preparedness that brought us to this condition in 1917? I believe not.

WILD EXTRAVAGANCE OF UNPREPAREDNESS.

48. In his great work, the "Military Policy of the United States," Gen. Upton gives convincing proof of the great waste of life and treasure and the resulting burden of taxation that ultimately results from unpreparedness. He declares that "Twenty thousand Regular troops at Bull Run would have routed the insurgents, settled the question of military resistance, and relieved us from the suspense of four years of war." This is a very remarkable statement, much more remarkable than any statement of Admiral Sims; and it has never been held up as an insult to the United States Army, but, rather, proof as to what an army can do if it exists and is ready.

49. It is probable that our naval unpreparedness resulted ultimately in great waste of money and a heavy burden of taxation for our people. We economized in little things before the war, built ships without providing men to man them—provided "mere masses of steel useless for purposes of war," and then when war was declared we opened the doors of the National Treasury and wildly expended billions in a vain attempt to recover from our condition of unpreparedness. It would be impossible to compute the probable waste. Two small items will suffice, however, to give some idea. We expended, according to Capt. McKean, "something more" than \$500,000,000 for new torpedo destroyers. Not more than a pitiful eight of these new craft got into the war. So far as these boats influenced the war, therefore, they cost us about \$60,000,000 a piece. We built a large number of so-called Eagle boats. Not one of these really got into the war, not one. And so it appears that in these two items alone we expended nearly \$600,000,000 to get eight small craft into the war zone. Further comment is unnecessary, and we may turn sorrowfully to contemplation of Mahan's principles upon which the old system of organization was built and read the concluding sentence: "There should be no shock or change of method in expanding from a state of peace to a state of war. This is not militarism; it is a simple business principle based upon the fact that success in war is the only return the people and the Nation can get from the investment of many millions in the building and maintenance of a great Navy."

50. It would appear that Admiral Mahan was a pretty wise business man. He never ceased to emphasize that organization and preparedness were true measures of economy, as well as a protection to a nation's life and honor. It is time that all intelligent citizens of this country, and especially all naval officers, began to realize that Mahan and Upton were wise men whose teachings we should follow.

51. In concluding this statement concerning the preparedness of the Navy for war as regards both personnel and material, it is only proper to state that the officers and men of the Navy were and always have been individually ready for war; that the unpreparedness of the Navy for war in 1917 was not primarily the fault of any officer or officers, but that it was due to the fact that the Navy Department as a whole declined or failed to adopt policies which demanded or even permitted officers to prepare the Navy for its duty as a fighting machine.

52. That the officers and men of the Navy, both regular and reserve, did their whole duty with great gallantry and devotion is admitted by everybody, and that they contributed loyally to the winning of the war is also beyond question. That the bureau chiefs were in no sense responsible for the lack of preparedness of the Navy Department and that they accomplished wonders as soon as their hands were free can not be denied.

53. That we escaped disaster was plainly due to the fact that the enemy's fleet, with the exception of submarines, had been driven from the sea before we declared war against Germany. Furthermore, it is important to recognize

our destroyers, armed merchant ships, and small craft, and noting the gallant little fight made by our sub chasers at Durazzo. It was a war without naval battles.

54. In other words, there was, strictly speaking, less sea fighting than in the war with Spain, and the Navy of the United States was not fully tested as to its readiness for battle nor as to the adequacy of all its units to meet the emergency of war had Germany's fleet been free to take the sea against us.

55. Escaping as we did by our great good fortune in that the German fleet never appeared after the battle of Jutland in June, 1916, it is the duty of every naval officer, who realized the actual conditions of our unpreparedness, to tell the truth upon the occasion of the investigation of the conduct of the war by a coordinate branch of the United States Government in order that the people of this country may no longer be deceived and the United States may not again be threatened by the inexcusable failure of the Navy Department to prepare the fleet in all respects for sudden war at any time in the future.

56. The time has come to face the facts and to ask this question: Was the fleet of the United States, with all its units and auxiliaries; with its available supply of ammunition, torpedoes, mines, and submarines; with no battle cruisers, no scout cruisers, and with a pitifully inadequate force of scouts and destroyers; with an air service composed of only 45 trained aviators; with its ships largely manned with green untrained men and reserve officers of little naval experience; was this fleet so constituted, even though its officers and personnel were unexcelled in the world for bravery and devotion to duty; was this fleet in all respects in readiness in the spring of 1917, or at any time during the World War, to line up for battle against the German fleet with a fair chance of victory, taking into account the cold facts, as shown when the British fleet met the Germans at the battle of Jutland? The commanders in chief of our fleets must gravely consider the facts and answer this question with a solemn regard for the consequences. If we were in all respects ready to defeat the German fleet, as it existed at Jutland, in June, 1919, the Navy Department may claim the credit for our preparedness; if we were not in condition to beat the German fleet in April, 1917, the Navy Department alone is responsible for neglect to prepare for that battle during the four preceding years.

57. The articles for the Government of the United States Navy, found in the Revised Statutes—laws passed by Congress to fix the duties and responsibilities of officers of the Navy—contain the following provision:

"That a commissioned officer of the Navy being in command of a fleet, squadron, or vessel acting singly, who neglects when an engagement is probable, or when an armed vessel of an enemy or rebel is in sight to prepare his ship for action; or does not afford all practicable relief and assistance to vessels of the United States or their allies when engaged in battle, shall suffer death or such other punishment as a court-martial may adjudge."

58. But a naval officer's duty does not, or should not begin and end in battle, nor in time of war. He has duties and responsibilities before the war and before the battles begin. And it should be clearly understood that any officer of the Navy who sits supinely or subserviently idle and indifferent when an armed enemy nation with an efficient fighting navy is in plain sight (and has been for years), and fails with energy to prepare and to urge other to prepare his country's Navy for war, when he knows or should know that it is unprepared in every respect, is unworthy of his cloth; that he is neglecting his first duty, fails to measure up to the standards of the American Navy, and is deserving of more severe punishment than a captain who fails to prepare a ship for battle. The neglect in time of peace to prepare the great navy of a great nation for battle imperils the whole country, and for this reason the offense is the more reprehensible.

59. The experience of the past demonstrates clearly, if we probe for the facts, that in throttling and ignoring officers of high rank who are seeking zealously and patriotically to prepare the Navy for war, the real truth concerning the Navy may be suppressed, the public may be deceived, and as an inevitable result the Navy may be placed in a condition of unreadiness involving danger of humiliating and disastrous defeat, or that it may fail to put forth

its best efforts in affording "all practicable relief and assistance to our allies" when engaged in war.

60. The Navy of the United States was not properly prepared for war in April, 1917. The question is, Shall such a condition be permitted to exist again in the future.

(The following communication was subsequently received from the Secretary of the Navy, and is here inserted in the record, as follows:)

THE SECRETARY OF THE NAVY.
Washington, May 29, 1920.

Hon. FREDERICK HALE,
*Chairman Naval Subcommittee,
United States Senate, Washington.*

DEAR MR. CHAIRMAN: News comes to me that at the last hearing of your subcommittee, Rear Admiral Fullam, retired, who had testified at length earlier in the hearings, filed a 42-page letter which has been placed in the hearings. It is far from my purpose to make answer to his advocacy of a Prussianized naval organization or his charge of naval lack of efficiency. Every statement he makes has been fully and completely answered in my direct testimony or in my cross-examination. I content myself with the following statement:

WHY ADMIRAL FULLAM (RETIRED) WAS CALLED FROM INTERNMENT TO TRY TO BACK UP SIMS.

No man who faithfully performs his duty as Secretary of the Navy can hope to escape the hostility of officers who are removed from positions in which they have fallen down. You have heard the testimony of some of these who came from retirement to air their criticisms born out of personal grievance. In fact, the hearings have been interluded with testimony of officers who had either been removed by me from a certain duty, denied a particularly coveted assignment, given orders that were not agreeable, or not granted permission to accept foreign honors contrary to the spirit of the American Republic. If you will cut out all the testimony from those with a grievance or a disappointment, your committee could save enough paper in printing the hearings to please the Senate committee on retrenchment in the use of paper.

Of course, you will attach no importance to testimony based on grievances, real or imagined. Let me be specific. You heard a long plaint from Rear Admiral Fullam, retired. You may not have known his animus. When I became Secretary of the Navy he belonged to that useless appendage known as the aid system, organized without authority of law. He busied himself during the first few months trying to convince me that the marines had no proper place on a ship in the Navy, retailing and detalling again and again his ancient opposition to this important and valuable service rendered by our incomparable marines. As a result of his long talks I became thoroughly convinced not only that his attitude was wholly wrong, but that it would improve the morale of the whole Navy to give even greater recognition to the marines. Therefore, after consultation with Admiral Dewey, I issued an order making the major general commandant of the Marine Corps an ex-officio member of the General Board where, as representative of the Marine Corps, he would have a voice in all actions taken on matters affecting the service of the marines ashore and afloat as well as of all policies affecting the Navy considered by the General Board.

FULLAM FELL DOWN AT ANNAPOLIS.

Upon the recommendation of naval advisors in Washington, Rear Admiral Fullam was sent to Annapolis as superintendent of the Naval Academy, and given all possible support in that important post. He was such a failure in that position that I was compelled to detach him and upon his detachment he was interned as the admiral in charge of the reserve fleet in the Pacific. It was then a duty of small importance. When war came on and Operations ordered the ships in the Pacific Fleet to become an active and efficient force in the patrol service on the coast of South America, the President, on my recommendation, made Rear Admiral Caperton the admiral of the Pacific Fleet, though Fullam aspired to be admiral of that fleet. Fullam's testimony should be read in connection with his evident animus, for all his long talk about the inactive Pacific

reserve before the country entered the war and his talk about personnel was but the prelude for his closing tirade against the Secretary of the Navy, who had contributed to naval efficiency by removing Fullam from the Naval Academy and declining to gratify his often expressed wish to be commander in chief of the active Pacific Fleet.

SIMS PREDICTED THE HEARINGS DURING THE WAR.

This hearing has made some things clear which I never suspected while the war was in progress, for Sims begins the attack and Fullam ends it. In his letter to Laning, written in August, 1918, Sims virtually announced that a hearing such as this which he precipitated and which has been going on for weeks would be held, for in his letter in 1918 to Laning (referring to the department's carrying its own rather than the policies he recommended) Admiral Sims said:

"If hearings are held on the conduct of the war a number of rather disagreeable facts must inevitably be brought out."

SIMS WANTED FULLAM IN PLACE OF WILSON.

Evidently Sims was preparing to secure an ally in the person of Admiral Fullam in the American admiral on duty in France. On the 17th of August, 1918, in the same month he wrote to Laning about the hearing, which brought about his January 7 letter, Admiral Sims telegraphed to Admiral Benson as follows:

[Translation.]

From: Vice Admiral Sims.

To: Admiral Benson.

I have heard unofficially that Wilson is likely to relieve Coffman in the battleship fleet. If this change is to be made or if Wilson is to leave his present duty for any other reason, I very earnestly request that Fullam be detailed as his relief. There is no other flag officer in the service at all likely to be considered available who would, in my opinion, be as suitable for the position as Fullam, and I strongly urge that any opposition to this detail which might be overcome if possible on the grounds that his services are needed in France in the interests of efficiency. Failing to secure Fullam, my next choice would be Knapp and my next C. S. Williams, who will soon be a permanent rear admiral. In an open official cable at this date I am asking for Bullard for duty at Malta as suggested in my personal letter to you of July 28. Please refer to my letter for the reasons why I should be allowed to recommend officers who are in sympathy with me and in whose ability and loyalty I have complete confidence. 01117, 2.05 a. m. 8-17-18.

Nobody on this side of the water had even thought that Admiral Wilson would be relieved from the important duty he was performing so well in France. While Sims, in London, was putting all American naval ships under British command, Wilson, in Brest, was keeping all naval ships under his direction in American command. Wilson was so efficient that the French, the officers and men of the American Army and of the Navy would have protested against any change in France, for Wilson's safeguarding the soldiers and performing other important duties in connection with American soldiers arriving in France meant more to American parents and American soldiers than anything that Sims meant in London.

WAS THE WISH FATHER TO THE THOUGHT?

Was not the wish for Wilson to leave Brest evidently father to the thought, for later in January, 1919, before he left London, Admiral Sims wrote me that "it was rumored that it is the intention of the department to assign Admiral Wilson to the command of the fleet," and declared "It would be a very grave mistake." His objection to Wilson, as given in his letter, was a wholly unjustifiable attack upon a brother officer. He said Wilson's trouble (nobody found any trouble with Wilson except Sims) was a "defect of both temper and character." That Wilson had "criticized not only the organization but me personally," and complained with characteristic egotism that "the department promoted Admiral Wilson to a rank equal to mine." Think of it! Jealousy added to egotism was apparent in every line of the letter which made me

indignant when I first read it. But about that time I received a cable from Sims asking to be appointed to the War College and ordered home, saying he was very weary and very tired. At that time I did not know of his attitude toward Wilson and that his letter was the result of his feeling against Wilson.

I therefore laid the letter aside and never let anybody see it until Admiral Sims compelled its production by his wholesale denunciation because certain of his staff had not been given the distinguished-service medal, though he had been guilty of the injustice of failing to recommend Wilson for any award, though Wilson's services had been valued so highly in France and in his own country that the President promoted him successively to be vice admiral and later to be admiral, the first a rank "equal to mine" and the second or higher rank than Sims holds, against which Sims sought vainly to prevent.

Do you not see, gentlemen, why Sims wished Fullam to supersede Wilson at Brest—a man "in sympathy with me, and in whose ability and loyalty I have complete confidence"? Sims and Fullam both are ready writers, and their evidence before your committee in their attacks upon the naval administration showed that Fullam is "in sympathy with me" [Sims]. Is it not clear what Sims meant when he wrote to Laning about the "hearing"—this hearing—and his earnest appeal for Fullam? He did not secure Fullam to replace Wilson in France, but Fullam did before your committee join in the attack, evidently planned by Sims in August, 1918, as the letter to Laning foreshadowed; and Fullam did write a long letter on the last day of the hearing. It was devoted largely to advocating ousting civilian control and Prussianizing the American Navy. Of course, the triplets, Fiske, Fullam, and Sims—

"Blanche, Tray, and Sweetheart,
They all do bark at me."

deny they wish to run the Navy on the Von Tirpitz plan, but that is the logical result of the policy they all advocate. They declare for a civilian Secretary, but what they want is a rubber-stamp civilian Secretary, who will "sign here" when the American Von Tirpitz fixes the policy. Before the war Fiske was frank in advocating that the Navy be organized on the German plan. They all still want a plan that will give military control, but since German so-called efficiency fell down they call it by some other name.

Sincerely, yours,

JOSEPHUS DANIELS.

The CHAIRMAN. The committee will stand adjourned, subject to the call of the chairman.

(Thereupon, at 3.45 o'clock p. m., the committee adjourned, subject to the call of the chairman.)

APPENDIX.

During the course of the testimony which was given in the naval investigation frequent suggestions were made by witnesses in regard to changes which might be advantageously made in the organization of the Navy Department. Toward the close of the hearings the chairman of the subcommittee wrote to the Assistant Secretary of the Navy and to various naval officers requesting that they submit for the consideration of the subcommittee any suggestions for changes which they thought desirable. These replies, with suggestions in some cases, are printed below.

Other officers have been and will be communicated with, and their replies will be published in the corrected record of the hearings.

HON. FRANKLIN D. ROOSEVELT, ASSISTANT SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, June 4, 1920.

MY DEAR SENATOR: You ask in your letter of May 7 that I give you any suggestions that occur to me about changes in the organization of the Navy Department which would, in my opinion, be desirable. Will you allow me, with great respect, to be entirely frank?

From newspaper accounts of the hearings before the subcommittee, I gather that the great bulk of the evidence given has related to operations during the late war and to the conduct of individual officers and officials, and that, therefore, the questions relating to the actual organization of the Navy Department have been either entirely passed by or have been brought out as mere incidentals to other matters. With entire respect, I do not see how any committee could make helpful recommendations in regard to the organization of the Navy Department without a full and complete investigation of the whole subject.

I have devoted more than seven years to the Navy of the United States, and during that time have necessarily come in contact with it in all of its various phases. Yet I myself would hesitate to approach the subject of changes in the administrative, executive, or operating functions of the Navy without a further very complete and exhaustive study.

It is perfectly true that because of my experience here and a personal study of many schemes for reorganization I am of the distinct belief that improvements can be made in the existing organization. I like to think that every department of the Government, legislative and executive, can be improved; but to be influenced by snap judgments or broad statements of individuals, as brought out in some of the questions asked by your committee and the answers thereto, would be the height of folly, and if acted on would seriously injure the future of the Navy.

I have seen it suggested by several people that the authority of the Chief of Naval Operations should be increased. This statement is so broad as to be wholly valueless. It must be remembered that Congress, in its wisdom, has from the earliest days of the Republic established the principle of civilian control at the head of the Naval Establishment. During only one period of our history has this been altered. That was in the period after the War of 1812, when a board of three Navy commissioners, all of them high ranking officers, was given great power, thereby taking away much of the authority of the civilian Secretary of the Navy. That particular system fell by its own weight, the naval service itself being thoroughly dissatisfied with what might be called

the dual control. I feel perfectly confident that to-day, also, the service sees the folly of any suggestion placing an officer at the head of the Navy as Secretary. A little thought would convince anyone that it would be equally ridiculous to have a civilian Secretary of the Navy, but to give him no authority and to give all the authority to a Chief of Operations. In other words, the question is simply this: Shall civilian responsibility and authority continue at the head of the service, or shall it be superseded by purely naval control? Therefore, any broad statement about "giving more authority to the Chief of Naval Operations" means nothing unless its meaning is defined.

It is my opinion that very great strides have been taken during the past few years in improving the administration of the Navy as a whole. The establishment of the Office of Operations was the most important step taken in several generations. In many other particulars, also, such as the coordinating of the different material bureaus under the Assistant Secretary, modern business practices were firmly established.

But, as I have said before, I do not regard the system as perfect, and I am convinced that from time to time steps should be taken to improve the existing organization and to have it keep pace with the times. For example, I believe that the time has come when, in accordance with the best business practice, an Office of Inspections should be created which would be independent of any of the bureaus. The present system of having the same people who are doing the work do also their own inspecting of that work is incorrect in principle.

So, also, I believe that two additional Assistant Secretaries should be authorized, one to have immediate supervision over the personnel bureaus, the other to have immediate supervision over the material bureaus. These Assistant Secretaries should act as the connecting link between the Office of Operations and the bureaus. Almost every other important department of the Government has three or more Assistant Secretaries. It must be remembered, however, that the present scale of pay for Assistant Secretaries will mean in the future that it will be necessary for any administration to appoint either independently wealthy citizens to these posts or to accept the services of second or third rate men.

I have given the two examples above merely as illustrations of many personal suggestions which I might make, but they ought not, in my judgment, to be considered by your subcommittee in view of the many limitations of the investigation which has been conducted. In other words, they are merely the snap judgments of an individual, similar to those you have heard from several officers who have testified before you, and merely scratch the surface of the broad subject.

As a matter of fact, there are many other questions of organization and of administration which are constantly brought up in the management of a great department of this kind; for instance, the present status of the General Board; the existing control of the navy yards; the present tendency to build up a "holier-than-thou" small organization or aggregation of officers at Newport and the imperative need of tying the War College into more close touch with the actual life of the Navy. It would be useless for me to discuss these matters at this time.

Frankly, what is the most serious trouble with the Navy now, as it has been in the past, is Congress. The system of making legislation and appropriations is not only archaic, but would put any private business firm into bankruptcy in a month. The method of dealing with any one of the naval appropriation bills will, I am sure, convince you of this. The Navy has in the past been treated altogether too much, as the tariff used to be, as a local issue. Allow me to cite as an example the amendments made by the Senate Naval Affairs Committee to the present appropriations bill. I am convinced after seven years' association here that the legislative and appropriating methods of Congress have compelled far too many of our naval officers to resort to similar political methods, because it has been the only way to accomplish results. This is, of course, entirely wrong. The Navy has always had to lead a hand-to-mouth existence, interspersed with investigations, hastily gotten up plans, makeshift policies, and a general spirit of time-serving to meet the political conditions of the hour. Two great steps have been taken in the past few years: First, the partial recognition of the continuing existence of the Navy by the passage of the three-year building program in 1915; secondly, by the creation of the office of Operation, with the responsibility for actual operations in the Chief of Naval Operations. If we are to build up broadly, we must build along these lines and do it slowly. We must build

up a continuing policy, but above all there must be a recognition of that policy by Congress and not the present system of haphazard changes and shots in the dark.

That is why I am absolutely opposed to any action by your subcommittee looking to changes in the existing organization. Such changes, hastily arrived at, would only muddy the waters and would accomplish no good in the long run.

I do not believe the time has yet come for a careful examination of the broad subject. We are altogether too close to the war to understand its lessons. We are in the middle of a partisan campaign. We have not yet wholly completed the work of demobilization. In other words, we are still greatly occupied with the work arising from the war itself. It seems to me that by next winter or next spring it would be possible and entirely right to have an examination and careful study made, but such an examination should be conducted only by experts.

Very sincerely, yours,

FRANKLIN D. ROOSEVELT.

Hon. FREDERICK HALE, *United States Senate.*

ADMIRAL R. E. COONTZ, CHIEF OF NAVAL OPERATIONS.

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, June 2, 1920.

MY DEAR SENATOR HALE: Referring to your letter of May 7, 1920, and subsequent correspondence connected therewith, I would state that I have finally found an opportunity to write you regarding the preparation of any suggestions that have occurred to me about changes in the organization of the Navy Department that would, in my opinion, be desirable.

The need for some such adjustment of the Navy Department organization appears to have been felt in a greater or less degree by all who have come in contact with it during a great number of years, including the civilian heads of the Navy as well as officers of experience. The various Secretaries have met this need in their own characteristic ways, sometimes using a civilian assistant of extensive knowledge in marine matters, at other times organizing boards or councils to furnish the advice needed in technical matters, and occasionally depending largely upon personally chosen officer aids for the advice required for the proper exercise of coordinating authority in purely professional naval matters. The civilian heads of the Navy have been able to make the Navy function as efficiently as it has, although openly or tacitly acknowledging the lack of a properly informed coordinating power in the department, by their successive endeavors to provide for this lack through the acceptance of expedients inherited from previous régimes or devised as a result of their own experience.

These expedients have filled in part the need which practically all familiar with the Navy Department organization admit exists. They have, however, been expedients; and, while accommodating themselves to the particular Secretary who may have devised or retained them, they have been subject to frequent modifications, sometimes amounting to the abolition of one system of procedure and the substitution of another. These frequent modifications have been detrimental to the general naval efficiency. There is still an absence of a coordinating head for the various technical naval activities carried on by the bureaus and offices of the department as now constituted.

The legislation establishing the Office of Naval Operations was a long step toward the remedying of the defect in question, but it failed in its purpose in so far as it restricted the responsibility of the Chief of Naval Operations to the preparation and readiness of plans for the use of the fleet in war, instead of charging him with the preparation and readiness of the fleet itself for use in war, as well as for its operations, for in the final summing up the fleet is the Navy.

The soundest of reasons exist for civilian control of the Naval Establishment, and it is unnecessary to discuss them here. The purpose of this letter is to suggest a means for supplying the deficiency in the department organization, universally recognized by successive civilian heads, which provides no person or body, under the Secretary, definitely charged with the responsibility of coordinating the technical work of the department as carried on by separate bu-

reaus, each bureau having equal authority in the administration of the activities under its cognizance. It is considered important to reiterate the point that the various Secretaries of the Navy over a long period of years have indicated the need they individually have felt of supplying this deficiency. They have supplied the deficiency by various methods, all of which lacked permanency, that would have characterized a method provided for by legislative enactment.

In the development, therefore, of the suggestion upon which this letter is based, it is proposed that the Secretary, in place of a body of aids, a board, or a council to advise him in the technical details of the naval profession, which has been established by himself and which hence is without legal responsibility, be provided with an assistant, subordinate to the Secretary, who is definitely charged by law with the preparation and readiness of the fleet for use in war or any emergency in accordance with policy dictated by the Secretary. Legislation with this end in view should be framed particularly to safeguard all of the present powers of the Secretary, which should in no way be compromised in supplying the existing defect in the department organization. Decision should rest with the civilian head in the same degree and in equal measure as at present. The Secretary should continue to dictate the policy of the Navy and should be responsible, in the same manner as at present, for the state of readiness and the employment of the Navy, so far as he may be considered answerable, through the President, to the legislative bodies and the country at large.

It is inevitable in an organization whose varied activities are closely interlocked that differences of opinion should arise. If these differences of opinion are shared by persons of equal authority in the organization and concern professional matters in which each party to the difference has an active and legitimate interest, a decision along the lines of approved policy is required. If the policy should be absent, the Secretary would dictate it. The decision could reasonably be left to his professional assistant, from whom an appeal to the Secretary by any one of the principals would still be possible.

What might be called the supreme expression of naval organization is that found in our major fighting ships. It is a form of organization which, in its essentials, is the result of generations of naval experience. It is familiar to all naval officers. It lends itself readily to the carrying on of naval activities other than those on shipboard, and fits naturally into the thought habits of the vast majority of officers. It is the type organization, with minor modifications, of practically all of the shore establishments of the Navy, except the Navy Department establishment itself. This typical ship organization of the Navy has been examined by civilian experts and has been pronounced a highly efficient one. It is believed, if the Navy Department is organized along the lines suggested by the usual ship organization in such a manner that the Secretary stands in the organization in the relation of the commanding officer of the ship, with a professional assistant and adviser in the relation of the executive officer of the ship, that the present defect in the department organization will be overcome, and that the chain of authority and responsibility will be such as to insure a more efficient and economical naval establishment than is possible under the present organization. The Secretary will not be restricted in his powers, but in the Chief of Naval Operations he will have a professional adviser responsible for the carrying out of his policies and authorized to coordinate the activities of the various bureaus and offices of the department in such a manner as will insure the fleet being in a state of readiness for any emergency and prepared to carry on governmental policies both in peace and war.

The analogy between the Secretary and the commanding officer of a ship in the proposed organization of the Navy Department is necessarily not perfect, on account of the lack of strictly professional knowledge of the Navy on the part of the former as compared with the latter. This department from an exact analogy, however, is not material, if the legislation covering the duties of the Secretary's professional adviser is so drawn as to make the latter responsible for the preparation and execution of all plans for the development and use of the Navy under the predetermined and guiding policies of the Secretary. The relation between the Secretary and his leading professional adviser would, in this particular, be similar to that between the president of an industrial organization and the executive manager of the organization.

The defect in the present organization of the Navy Department, in which the only common superior of a number of coordinate technical administrative bu-

live activities, which must be depended upon to provide personnel for and to supply and maintain the fleet in any given theater of operations.

If, then, the Chief of Naval Operations is given by law the status of leading professional adviser to the Secretary, and, under the Secretary as the supreme authority in the Navy, is charged with the operations of the fleet, with the preparation and readiness of plans for its development in peace, as well as its use in war, and is invested with the necessary authority over all of the technical administrative activities of the Navy to insure that approved plans and policies are carried out, there will result an organization, analogous in its essentials to that which has been found most efficient in all military establishments, and which will present a logical chain of command and responsibility, and will remedy at once the essential defects of the present organization.

There are some important details to be developed and decided upon in connection with the above suggested plan of organization. In this connection I am of the opinion that in the interests of economy, efficiency, and lack of friction the Pay Corps, the Construction Corps, and the Civil Engineer Corps should be amalgamated with the line of the Navy along the same lines that the old Engineer Corps was amalgamated by the act of March 3, 1899. All troubles over bureau coordination, industrial management, etc., will then fade away. The remaining two corps—the Medical Corps and the Chaplain Corps—can be given rank and title along the same lines as these matters are handled by the Army. The question as to the future of the General Board can be handled by its amalgamation with the plans committee of Operations and then making of it the permanent policy and plan section of Operations. All estimates of naval appropriations, from whatever source, should be based on approved plans for the development and use of the Navy. These plans would indicate the relative importance of the various features entering into the plans, and estimates of appropriations for carrying them out should be coordinated by the Chief of Naval Operations and approved by the Secretary of the Navy. There is, under the present organization, no coordinating branch in connection with personnel activities, and the matériel division of Operations is without proper powers effective to aid in the material development of the fleet and the shore establishment as a whole. These difficulties readily lend themselves to a solution within the limits of elasticity which should be accorded to the organization of the Navy Department as a whole. The really essential feature which will enable the Navy to function as an effective fighting machine is to provide the Secretary by law with a professional adviser charged with the responsibilities as outlined herein and invested with adequate authority to discharge such responsibilities.

The Navy has functioned in the past and will continue to function in the future, but to assure economy and efficiency I will roughly summarize the foregoing desirable needs as follows:

- (a) Amalgamate the Supply Corps, the Construction Corps, and the Civil Engineer Corps with the line of the Navy.
 - (b) Establish the budget system.
 - (c) Clothe the Chief of Naval Operations with the responsibility and authority heretofore mentioned, under the direction of the Secretary of the Navy.
 - (d) Amalgamate the General Board with the Plans Division of Operations.
- Very respectfully,

R. E. COONTZ,
Admiral, United States Navy,
Chief of Naval Operations.

HON. FREDERICK HALE,
Chairman Subcommittee Senate Committee on Naval Affairs,
United States Senate.

REAR ADMIRAL CHARLES J. BADGER, PRESIDENT, GENERAL BOARD.

DEPARTMENT OF THE NAVY, GENERAL BOARD,
Washington, May 11, 1920.

Senator FREDERICK HALE,

Chairman Subcommittee, Senate Committee on Naval Affairs.

MY DEAR SENATOR HALE: I am in receipt of your letter of the 7th instant, requesting me to furnish the subcommittee of which you are chairman suggestions in regard to changes that may be advantageously made in the organization of the Navy Department.

2. After giving careful consideration to the subject I feel that I am not prepared to make any suggestions for a reorganization of the Navy Department that would be of value to the committee or to the service. I have not given it the detailed study which its importance merits.

3. The present organization of the Navy Department is based upon a bureau system, with a civilian Secretary of the Navy at its head, originally adopted in 1842 and extended and modified in succeeding years as progress in the Navy has rendered advisable. Through many trials, and at times against much opposition within the service, it has maintained itself because upon broad investigation nothing better suited to our methods of business and form of Government has as yet found to replace it.

4. It adjusted itself efficiently to the demands of the World War. Without substantial modification it stood the strain of enormous expansion and subsequently of speedy and orderly contraction to normal conditions with the minimum of friction or confusion. This fact should cause suggestions for any radical change to be examined with thoroughness and conservatism.

Very sincerely, yours,

CHAS. J. BADGER,
Rear Admiral, United States Navy (Retired).

REAR ADMIRAL HENRY T. MAYO, MEMBER, GENERAL BOARD.

DEPARTMENT OF THE NAVY, GENERAL BOARD,
Washington, May 10, 1920.

Hon. FREDERICK HALE,

United States Senate.

MY DEAR SENATOR: In compliance with your letter of May 7, 1920, I inclose herewith additional statement which I had prepared in accordance with your verbal request that I prepare a further statement in regard to what I had said in my hearing as to the relations of national policy to the work of the Navy Department and also in regard to organization of the Navy Department.

I assume that it will not be desired that I appear in person again before the subcommittee.

Very respectfully,

H. T. MAYO,
Rear Admiral, United States Navy.

STATEMENT OF REAR ADMIRAL H. T. MAYO, UNITED STATES NAVY.

1. In complying with the request of the chairman of this committee, to elaborate on my previous statement about foreign policies of the country as applied to the Navy, I find that I can not deal with the subject in a proper manner without going into it at some length. I have, however, endeavored to condense what I have to say as much as is practicable and consistent with clearness.

2. In addition to the indisputable rights inherent in the conception of a country as free, independent, and "sovereign" in its own right, every country has certain policies or interests (which may well grow to become policies) which are considered vital to its honor, its welfare or its existence. These policies and interests (such as those growing out of foreign trade) are, from their very nature, frequently bound to conflict with the similar policies and interests of other countries, who are entitled to their own views as to territorial

possession and expansion, political rights and obligations, and commercial and industrial markets. The interchange of views and negotiations as to such policies and interests is embraced in the field of foreign affairs, or international relations, and is conducted chiefly through the agency of diplomatic intercourse.

3. The ordinary processes for the conduct of foreign affairs are the exchange of notes, the making of treaties, the framing of covenants and other similar communications or agreements for the purpose of promoting orderly relations, the composing of differences, or the adjustment of other matters where there may be a conflict of interests. Human nature being what it is, as well with regard to nations as to individuals, diplomatic intercourse depends for its efficiency not alone upon international courtesy and good will but, in those matters where a nation may deem the satisfactory solution of the question at issue vital to its welfare or to its existence, upon the driving power behind the presentation of its case to the equally independent and interested country with whom negotiations are in progress. This driving power may be moral or economic or military and at the same time actual or potential.

4. It should be noted that not alone is consideration required of our own policies and interests but also of such policies and interests of other nations as may be detrimental to our national welfare or existence. The policies that we may have cause to initiate constitute but one side of the matter; there is another side, where other countries initiate policies or support interests which this country can not afford to overlook. This interaction leads to complications which in the final analysis may depend upon potential strength for peaceful solution and for the use of force when peaceful measures fail.

5. As concrete instances of national policies I will mention two which are so well known as to be generally accepted and should give no cause for unfavorable comment as to their mention—the Monroe doctrine and the open door. I think it best to leave you to consider without specific comment the bearings of these well-known policies, the one chiefly political and the other chiefly commercial, on our relations with other countries. Again, we are, of course, satisfied as to our control of the Panama Canal, but we could not be expected to permit any other country to bring that control into question.

6. Frequently a solution to international difficulties is found by means of compromise; frequently, also, by one nation or the other abandoning a certain policy, chiefly through lack of driving power; arbitration is often resorted to with satisfactory results where minor issues are involved. But where certain vital matters are in consideration no government and no nation calling itself a free, independent, and sovereign country can yield, not even if the arbitration of friendly and disinterested countries should so decree. In such a case a deadlock ensues, and the usual result is war. War, then, may be somewhat paradoxically viewed as the continuation of international intercourse when all diplomatic measures have been found inadequate to settle or adjust differences.

7. War, the use of force, can not be separated from national policy, and, therefore, such policy is the determining factor in the decision as to what state of preparation of the armed forces is necessary or advisable for the support or for the defense of interests which may be deemed vital. War is but the continuation of policy; policy must contemplate the eventuality of war when foreign relations come into play.

8. While all the armed forces and military resources of a country must conform to the requirements of national policy, the Navy is peculiarly the instrument of international or foreign affairs by reason of the fact that it operates on the sea, which is the common international highway and the principal medium of international intercourse, whether for peace or for war. The Navy should, in order to be of the maximum efficiency and at the same time as economical as practicable, be of such size, characteristics, and composition as the requirements of our international affairs, present or prospective, may necessitate for the support or for the defense of the national welfare or existence. It is to be noted that the support or the defense of national interests may well be, and in fact usually is, effected by passive or potential considerations rather than by action.

9. It is not the function of the Navy to decide upon national policies, nor to determine what interests shall be supported and what left to shift for themselves. The Navy is but a military instrument to be brought into play by the Civil Government to support and, if need be, to enforce or to defend such

policies and interests. The Navy, upon being informed, can say what it can adequately support or what it can defend with existing facilities; upon being informed of policies, it can say what it will require in order to support or to defend them; and, should the time for support or defense arrive, it can be expected to "make good" according to how well or ill the means furnished it are suited to the task in hand.

10. It is hoped that the foregoing elaboration of the interrelation of the armed forces, particularly the Navy, and the national foreign policies and interests, indicates why it was stated in the previous testimony that "until the Navy is provided with a definite ideal in the form of a definite statement of the foreign policies which it is to be prepared to enforce, the management of the Navy can not formulate building programs and war plans except on hypotheses as to the foreign policies of the United States." At present these hypotheses have to be made by naval officers. If hypotheses have to be made it would be better if they were made by those responsible for our foreign relations.

11. At present this lack of definite knowledge of our national policies prevents a logical analysis and decision as to the naval strength we require, other than the very general one, that of "A Navy incomparably greater than that of any other country." The continuation of the present and past indefiniteness is virtually a "policy of no policy." Reasonable, ordinary safety demands that, not knowing what we may be called upon to do, we must ask for a Navy large enough to prepare for any eventuality. We have a Navy of a certain size, good—what there is of it—but if it is not large enough for the needs of our international affairs we are leaning on a broken reed. If it is too large it is just so far extravagant, and an unfair charge on the country. It is for the Government to decide from time to time upon the foreign policies and interests that it is deemed necessary to carry through, and to keep the Navy (and the Army) duly informed; then to require from the War and Navy Departments a statement of their capacity to support and defend such policies and interests; and then to take the necessary steps to increase or decrease that support or that defense accordingly. It is obvious that a Navy can not be improvised; it must be made ready before hand.

12. The means of coordinating the national policies with readiness to support and defend them is thus outlined. The Navy (and the Army) furnished with the knowledge as to what they are to be ready for are thus put in a position to make definite and specific studies for the war plans that will enable them to support or defend our national foreign policies. The studies will include examination of the probable areas of operation, the strength and weaknesses of the probable enemies, and of our own strength and weaknesses, and will result in carefully considered plans on which the country may depend. It is thus that building programs should be decided upon; it is only on such firm bases that the numbers and types of ships and bases required by the Navy, can be logically determined. Only in this manner will we have a Navy that is adequate to the needs of the national policies and interests, because then the national policies and the measures necessary to support or to defend them will be coordinated.

13. It may be said that it would be unwise to give publicity to the considerations which would determine what national policies and interests are deemed vital; what ones are reckoned desirable; and what are considered unimportant; as such information would obviously be of interest and of value to other countries. As a means for dealing with this situation it is suggested that there might be established a council of national preparedness similar in composition and function to bodies which most great countries utilize for the same purpose (as indicated in an appendix hereto). Such a body could well be composed of suitable and responsible representatives of the executive and legislative branches of the Government, such as—

From the executive branch: The Secretary of State, the Secretary of War, the Secretary of the Navy, and the Secretary of the Treasury.

From the legislative branch: Chairmen of the Senate and House Committees on Foreign Relations, chairmen of the Senate and House Committees on Military Affairs, chairmen of the Senate and House Committees on Naval Affairs, and chairmen of the Senate and House Committees on Appropriations.

From the military and naval branches: The Chief of Staff of the Army and the Chief of Naval Operations.

Such a body could meet periodically or at the call of the President, and would, preferably, always meet in confidential sessions. The scope of their considera-

tions would not be executive, but rather analytical and summarizing, as to the facts in regard to policies and the measures necessary to support or to defend them. This body would report to the President in full, and to Congress so much as may be necessary to insure that recommended measures shall have due consideration. The ex officio composition and responsible membership of such a council should insure a harmonious coordination of views and aims and an efficient cooperation of effort in preparation of the national needs.

14. In complying with that part of the request to elaborate on my previous statement about the defects in the organization of the Navy Department, I also find that I must go into the matter at some length, but I have again endeavored to condense what I have to say by dealing with general principles and omitting nonessential details.

15. I shall consider the general subject of Navy Department organization first, and later indicate the particular faults in the present organization and my opinion of how they may be corrected.

16. It must be understood that I am expressing only my personal views, and those in general terms. For the details of changes in the organization, I consider that the Navy Department should be consulted.

17. *Organization.*—There are two main classes of naval activities: (a) Administrative: That is, the activities comprised in the design, production, and maintenance of the naval forces. (b) Operational: That is, the operations of the naval forces.

18. Maintenance as used in (a) above is limited to repairs and alterations to vessels of such nature as require work to be done at a navy yard; to the procurement, preliminary training, and transportation of personnel, and to the procurement and transportation of stores and supplies, until placed on board vessels attached to the operating forces.

19. The activities of class (a) are, to a large extent, controlled by the various bureaus of the Navy Department, and to facilitate the control of the bureaus over such activities the law provides that all orders issued by a chief of bureau shall be considered as having been issued by the Secretary of the Navy. There is no superior to the chiefs of bureaus in the organization of the Navy Department, except the Secretary of the Navy, and the Assistant Secretary in certain activities assigned to him by the Secretary.

20. Repairs and alterations to vessels, as well as design and production of new vessels, and any extensive operation of our naval forces usually involve activities of two or more bureaus and, unless by voluntary adjustment of differences the bureaus can arrive at decisions satisfactory to all concerned, the final decisions must be made by the Secretary of the Navy. It should hardly be necessary to say that a civilian Secretary is not likely to have the technical knowledge or training necessary to settle differences between bureaus, and as a consequence such differences are usually settled, if settled at all, by the assistants of the Chief of Naval Operations but, in order to comply with the law, the order directing the execution of such decisions must be signed by the Secretary of the Navy.

21. The necessity for the coordination of the material bureaus was recognized in the Meyer plan of Navy Department organization, in which there was an aid for material to advise the Secretary in such matters. In the Meyer plan the aid for material had no authority and consequently his position was merely that of an adviser to the Secretary. The chiefs of bureaus each have certain responsibilities under the law and they probably resented the establishment of an adviser to the Secretary in material matters, when such adviser had no legal standing or responsibility.

22. In the Meyer plan there were four aids, one each for material, personnel, operations, and inspections. These aids had no authority except to transmit orders of the Secretary, and were of approximately equal status in the organization.

23. This plan, although excellent in general, was faulty in two important particulars, namely:

(1) That it failed to give adequate consideration to the fact that the object of the Navy is accomplished by the operating forces and that the activities of all the bureaus and offices of the Navy Department must be in accord with and subordinate to the demands of the operating forces and with plans for the employment of such forces.

(2) That the aids were advisers only and consequently had no authority and no responsibility except that to the Secretary with respect to the advice they gave him.

24. This last paragraph indicates the ideas which must govern any organization of the Navy Department if the maximum efficiency is to be obtained.

25. The primary function of the Navy is to defeat the naval forces of any enemy with a view to gaining and maintaining the control of vital lines of communication on the sea. All phases of naval activity must be governed by this function, and therefore the policies and general plans governing the activities of the bureaus must have the same origin as the policies and plans governing the operations of the naval forces; and authority to exercise, through the bureaus and offices of the Navy Department, the commandants of naval districts, navy yards, or stations, and the commanders of naval forces, such supervision over all naval activities as may be required to secure coordinated and efficient execution must be given to the office charged with the operations of the naval forces. This supervision should under no circumstances be extended to interfere in the administrative work of the bureaus.

26. The second class of naval activities, as indicated in paragraph 17, is the operations of the naval forces.

27. The operations which the naval forces can undertake is dependent upon their strength and characteristics, the location of naval bases, and the location and capacities of the various naval establishments, such as navy yards.

28. It should be apparent from the above that the separation of the operations of the naval forces from the activities of the bureaus is impossible. Each is dependent upon the other, and the maximum efficiency can not be attained unless all activities of the bureaus and offices of the Navy Department are based upon policies and plans which are consistent with the plans and policies governing operations.

29. The principle that material activities and the operating activities must be coordinated in one office has been recognized by most of the large industrial corporations which operate as well as produce material. This principle is recognized in the present organization of the Pennsylvania Railroad Co., the American Telephone & Telegraph Co., and others of equal prominence.

30. *Naval policies and plans.*—Naval policies and plans are to a large extent dependent upon national policies, as has been pointed out. Efficiency demands that the Navy be governed by its own well-considered policies and plans in accord with national policies. There must be centralized control of the professional and technical questions by a professional and technical officer in the development of these policies and general plans. The Chief of Naval Operations should be the principal adviser of the Secretary of the Navy with regard to these and must be provided with the necessary personnel to assist him in their preparation. In order that the importance of planning in the preparation and training of the Navy and in the conduct of war may be thoroughly appreciated, it will be discussed at some length.

31. *Planning.*—Planning is necessary for three purposes:

- (a) To prepare in advance for what is to be done;
- (b) To coordinate all lines of activity so that they work together to achieve a common purpose; and
- (c) To concentrate all available forces upon the work at hand or to be undertaken.

32. Enlarging upon these phases as they apply to the Navy, they appear as follows:

The comparison of our foreign policies with those of other nations, indicates:

- (a) Our most probable enemies.
- (b) The probability of war.
- (c) The nature of such war if it is forced upon us.
- (d) Probable theaters of war as indicated by the objects of the war, locations of important possessions, etc.

Information as to (a) and (b) should be received from time to time from those charged with the responsibility for our foreign relations.

We must know the naval, military, and economic strength of each nation, and from this and (a), (b), (c), and (d) above, we must determine:

- (e) The strength and characteristics of naval forces which may oppose us.
- (f) From (d) and (e) the strength and characteristics of the Navy we need, including ships, bases, and industrial establishments.

33. It must be stated again for emphasis that the Navy does not and should not concern itself with determining the policies which dictate what the Navy is to be prepared to do. The Secretary of the Navy is, however, responsible for advice to the President and to the Congress as to the strength and

characteristics of the Navy, and until he is instructed as to at least the general policies of the Government his advice can be based only on hypotheses.

34. There is no desire on the part of naval officers to influence Government policy, but the efficient performance of naval officers' duties, those duties for which they exist is impossible without knowledge of the policies which actuate the Government. Naval officers must advise the Secretary of the Navy and Congress as to the number and types of ships required; of the location and capacity of required naval bases, etc. These and many other items are based on our foreign policies.

35. To coordinate all lines of activity so that they work together to achieve a common purpose, and to concentrate all available forces upon the work at hand, or to be undertaken, it is necessary to prepare war plans:

36. War plans consist in general terms of:

(a) Mobilization plans indicating the rendezvous for ships in commission, the sequence of commissioning ships in reserve and out of commission; plans for commandeering, manning and arming such private vessels as may be necessary and suitable as combatant vessels, and for the utilization of all available naval personnel.

(b) Strategic plans indicating the character and the theater of the operations to be undertaken.

(c) Logistic plans indicating the means to be taken to supply and maintain the operating forces, including such as: Plans for commandeering necessary and suitable merchant vessels for the supply of the operating forces; the procurement of personnel, stores and supplies, and their transportation to desired points; the expansion of naval establishments, and the provision of floating repair facilities, such as floating dry docks and repair ships.

(d) Programs—if the study of war conditions indicate that additional forces, bases, or establishments will be required in the conduct of war, programs for such additions should be made. Such details of plans and projects as concern the bureaus would be assigned to them for preparation.

Such programs are of two classes:

(a) Those which should be undertaken in peace to prepare the Navy for possible operations.

(b) Those to be undertaken at the outbreak of the war.

37. Economy and efficiency demand that the appropriations for the Navy be spent in accordance with well-considered plans for national defense. Such plans can be best prepared under the general direction of the Chief of Naval Operations by assistants set apart as far as practicable from distracting routine administrative duties.

38. All particular phases of naval technical activity, both in personnel and material, must be represented somewhere in the planning personnel by officers highly skilled in respective activities such as strategy, tactics, gunnery, engineering, naval construction, supplies, public works, etc.

39. The personnel assigned to planning form a type of research department in which naval experts reach out into the field of knowledge and bring to the responsible head of the organization the results of their study bearing upon the main features of naval activities; studies which are made with a closeness of attention which it would be impossible for those charged with administrative duties to give.

40. This research is not the same as the technical research with regard to material carried on by the bureaus. It is research into the knowledge of the conduct of war; to formulate instructions for the conduct of war; to study the changes in the conduct of war which may result from the development of new weapons or types of vessels, or aircraft; to predict the nature of future wars and to study new conditions with a view to pointing out desirable characteristics of weapons, vessels, etc., toward which the material bureaus should proceed in the development of materials.

41. It is evident that any failure to accomplish any of the three purposes of planning above stated (paragraph 31) must lead to a loss of efficiency. Work can not go on unless some one decides what is to be done; likewise, coordination of activities and the concentration of all forces on the work at hand can result only from orders based on well-considered plans.

42. Planning is the exercise of foresight, including the continuous revision of more distant foresight by later, closer, and clearer vision. Plans need to be made and then be constantly under revision; but to insure their existence there should be certain times when, as a matter of routine, plans and projects are made covering a period as far ahead as practicable foresight will allow.

43. For the Navy, such plans and projects should be made annually, previous to the date on which the estimates of appropriations are to be submitted to Congress, and these estimates should be based on these plans and projects. In no other way can economy be obtained and the returns from the money expended be a maximum.

44. These plans and projects should be presented to Congress with the estimates of appropriations in order that the Congress (which is responsible for the appropriations) may have a clear conception of exactly what the Navy intends to accomplish with the money appropriated.

45. As the Chief of Naval Operations is charged with the operations of the fleet, he must, if efficiency is to be attained, be charged with the preparation and readiness of all plans pertaining to the operation of the naval forces; plans for their maintenance and plans for their development, including the determination of the characteristics of weapons, vessels, and shore establishments as they apply to the effective employment of the naval force.

46. As the Chief of Naval Operations is charged with the operations of the the naval forces and consequently should be prepared under a common head. The efficient coordination of all plans to the one aim of the Navy will secure the maximum results for the minimum expenditure of money.

47. The Chief of Naval Operations, should, therefore, be responsible to the Secretary of the Navy, for the preparation, readiness, completeness, effectiveness, and execution of plans of the Navy for national defense, including plans for the development of the Navy, plans for its maintenance, plans for its use, and plans and recommendations for cooperation with other Government departments.

48. The Chief of Naval Operations should have authority to assign for preparation such portions of these plans as he may deem appropriate to any bureau, board, or office of the Navy Department, or to commanders of naval forces, naval districts, or naval bases.

49. All policies or general plans so prepared, or prepared by his assistants, should be forwarded to the Secretary of the Navy, the Chief of Naval Operations advising the Secretary of the Navy in writing in regard thereto.

50. Important policies and general plans should, before being passed upon by the Chief of Naval Operations, be referred to a board composed of officers of long service and great experience.

51. The General Board of the Navy, although not constituted by law, has for some 20 years acted as above indicated and has had the confidence of the Congress, the Secretary of the Navy, and the bureaus of the department. It is believed that the value of and reliance upon its opinions have been increased by the fact that it is an independent body, having no administrative duties, and reporting directly to the Secretary. Whether under any reorganization of the department this board should remain a body of independent advisors to the department on such matters as are referred to it, as is the case at present, or whether it should be furnished with the necessary assistants and be legally charged with the preparation of important general policies and general plans, is a question regarding which there are different opinions and upon which department opinion and recommendation should be obtained.

52. After the approval of policies and plans by the Secretary of the Navy, the Chief of Naval Operations should be responsible to the Secretary for their execution, acting as the executive of the Secretary in carrying the plans into effect, and should be authorized to exercise, through the bureaus and offices of the Navy Department and the commanders of naval forces, districts, or bases, such supervision over all activities of the Navy afloat and ashore as may be required to secure coordinated and efficient execution.

53. There is no suggestion to limit the authority of the Secretary of the Navy by the above provisions. The governing idea is to provide an experienced technical subordinate to the Secretary who can be held responsible for the making of plans, and, when policies and plans are approved by the Secretary, be responsible for their efficient execution. The relation between the Secretary of the Navy and the Chief of Naval Operations should be the same as that between the president of an industrial corporation and its general manager. The Secretary of the Navy should be responsible to the Government for the policies and general plans which he approves, but after approval should hold the Chief of Naval Operations responsible for their efficient execution. Control of policies and plans is effective control over all activities only when responsibility for their execution can be definitely fixed. Operations and administration are so inti-

mately related that the control over both types of activities must be centralized under one professional head.

53. It will no doubt be remembered that one of the criticisms of the organization previously made was that coordination of 13 bureaus, boards, and offices was required of the Secretary. The result of the above suggested change would throw nearly the same burden on the Chief of Naval Operations. The only improvements would be:

(a) The coordination would be accomplished by a man of technical knowledge and professional experience; and

(b) Such officer is by law allowed two principal assistants, one for operations and one for material and consequently would be relieved of much of the routine duties.

54. The exercise of such supervision would in no way restrict the administrative activities of the bureaus. Interference in the administrative work of and in the internal relations of the bureaus would be contrary to the principle of subdivision of labor and responsibility. The exercise of such supervision as is indicated would lead to all bureaus, other shore activities, and operating forces, working toward the accomplishment of definite plans.

55. The chiefs of bureaus would have access to the Secretary of the Navy just as at present, but the activities of the Navy through this centralization of policies and plans would be coordinated to a degree not possible at present.

56. This above-suggested modification of the present organization would no doubt increase efficiency, but the organization would still be faulty in two respects:

(a) Practical experience has demonstrated that efficiency is reduced when the activities of more than a maximum of, say, eight subordinates are coordinated by one superior; preferably this number should not exceed five or six.

(b) The effect of the above organization would be that the assistants to the Chief of Naval Operations, usually junior to the chiefs of bureaus, would, acting under instructions from the Chief of Naval Operations, be the actual coordinating authorities.

57. The present organization is deficient in that authority and responsibility for administrative activities are not definitely placed except in the Secretary of the Navy and in the chiefs of bureaus. A "chain of command" is just as necessary in these activities as it is in the fleet. The necessity for a definite line of authority and responsibility, or, as it is commonly called, "chain of command," is recognized in modern industrial organization as well as in military organization.

58. Proper organization demands:

(a) A responsible head invested with commensurate authority.

(b) A limited number of officers immediately subordinate to the head, who alone deal directly with him.

(c) Other officers subordinate to these, and others subordinate to them, in a definite graduation of authority.

The responsible head should deal with his immediate subordinates. Also, that is his proper limit.

59. With the previously explained necessity for the coordination of the material bureaus in mind, and in conformity with the paragraph above, it appears that to obtain the maximum efficiency there must be a chief of material who would occupy a definite place in the "chain of command" between the Chief of Naval Operations and the material bureaus. Likewise, there should be a chief of personnel, who would occupy a like position in relation to the bureaus and offices which deal primarily with personnel. The commanders in chief of the fleets and commanders of naval districts occupy similar positions with regard to the operations of naval forces.

60. Such an organization will limit the number of subordinates with whom any one authority will deal and will also permit the proper decentralization of authority and responsibility through a definite "chain of command."

61. In this suggested organization:

(a) The Chief of Naval Operations would be responsible to the Secretary of the Navy for the preparation, readiness, completeness, and effectiveness of plans for the Navy for national defense, including plans for the development of the Navy, plans for its maintenance, plans for its use, and plans and recommendations for cooperation with other Government departments.

(b) The Chief of Naval Operations would have authority to assign for preparation such portion of these plans as he may deem appropriate to any

bureau, board, or office of the Navy Department, or to commanders of naval forces, naval districts, or naval bases.

(c) After the approval of policies and general plans by the Secretary of the Navy, the Chief of Naval Operations would be responsible to the Secretary for their execution, acting as the executive of the Secretary in carrying them into effect, and would be authorized to exercise, through the bureaus and offices of the Navy Department and the commanders of naval forces, districts, or bases, such supervision over all activities of the Navy afloat and ashore as may be required to secure coordinated and efficient execution.

(d) There would be two divisions controlling the administrative activities—a division of material and a division of personnel. The present bureaus would be divided under these two divisions.

(e) The Chief of Naval Operations would be responsible for the operations of the naval forces, exercising this authority through the commanders in chief and commandants of naval districts and bases.

(f) The activities of all navy yards and stations pertaining to maintenance and supply would be under the supervision of the chief of material.

62. The primary differences between this suggested organization and the Meyer plan are as follows:

(a) The Chief of Naval Operations is, under the Secretary, charged with the responsibility for the preparation, readiness, completeness, and effectiveness of plans and for the efficient execution of approved plans.

(b) The chiefs of material and personnel are given definite responsibility and authority to coordinate the activities of the bureaus, the chiefs of material and personnel being subordinates of the Chief of Naval Operations and the common superior of the bureaus comprising their respective divisions.

(c) The aid for inspections is not provided because the function of inspection as to efficiency of operation and training legitimately belongs to each superior. There should be no inspection of this nature by persons not charged with responsibility. Inspection of material manufactured for other bureaus or work done on board ship must logically be inspected by those for whom the work is done.

(d) The Marine Corps would be considered as a separate division.

63. *Appropriations.*—In the above discussion no mention has been made of appropriations. The Navy must be prepared to do its best with that which is provided. It is only fair to Congress that the Navy's plans and projects, except where in rare cases secrecy may be essential to the public interest, should be presented with all requests for legislation or for appropriations.

64. The Navy Department should be required to submit each year a general naval project. Such project should indicate the Navy's plans for the employment of existing forces and the projected construction of vessels, industrial establishments or bases, together with the reasons therefor, and the estimates of the appropriations required to execute the plans and projects.

65. The congressional committees in their consideration of such plans and projects should have the advice, not only of the Secretary and the Chief of Naval Operations, but also of the experts who prepared the plans and projects.

66. The Congress should appropriate the money to the Navy Department in a lump-sum appropriation for the purpose of executing the plans and projects. If certain parts of the plans or projects are not approved by Congress, they must perforce be eliminated, but ordinarily if the appropriation to be granted is less than that requested, the Navy Department should be permitted to indicate the priority in its plans or projects, and after the appropriation is made should be permitted to allocate funds to the various bureaus and offices of the Navy Department as may be necessary to execute the approved plans and projects.

67. There is little doubt but that such a system will result in much greater economy and efficiency than the present system in which each bureau makes up its estimate of appropriations without reference to any general plan or project adopted for the Navy as a whole.

68. If the system of a lump-sum appropriation to carry out definite plans and projects can not be established, the following system will add perceptibly to efficiency and economy.

69. All estimates from whatever sources within the Navy Department should be based on the approved plans and projects for the Navy. Such plans and projects should indicate the priority of the activities comprising the plan or project, and all estimates of appropriations should be coordinated with these plans and projects by the Chief of Naval Operations and returned to the bureaus or offices for comment before being submitted to the Secretary.

70. As each bureau or office to which funds are appropriated is held accountable by law for the expenditure of such funds, and according to the plans and projects should be required to accomplish certain results with the money, the comments of each bureau or office concerned, upon the estimates as approved by the Chief of Naval Operations, should accompany the final estimates when submitted to the Secretary.

71. Likewise, the comments of the Chief of Naval Operations and of the bureaus or offices on the final estimates should accompany these estimates when submitted to Congress. It is believed that these would largely replace the long hearings now found necessary by the Naval Committees.

72. In accordance with the request of the chairman, I shall now point out the particular faults which exist in the present organization of the Navy Department as I see them, the results of such faulty organization, and how it is corrected in the proposals I have made.

73. (a) No centralized professional responsibility for the preparation of policies and plans.

Result.—General Board, Chief of Naval Operations, and bureaus each submit to the Secretary various policies and plans for approval. This results in lack of coordination, reduced efficiency, and extravagance.

How corrected.—Policies and plans would be formulated under the direction of the Secretary by the Chief of Naval Operations. The Chief of Naval Operations would be assisted in preparation of details by planning officers and the bureaus and officers of the Navy Department and would have the final comment upon all plans and policies recommended to the Secretary. This would insure that all policies and plans would be properly coordinated.

(b) No centralized authority, except the civilian Secretary to supervise the execution of policies and general plans.

Result.—The Secretary is overburdened with administrative duties and forced to assume the direct responsibility for many technical and professional decisions in which, due to a civilian's lack of technical and professional training, he must depend upon subordinates not recognized in the organization.

How corrected.—The Chief of Naval Operations, under the Secretary of the Navy, would be authorized to exercise such general supervision as necessary to secure coordinated action.

(c) No centralized control over estimates of appropriations except by the civilian Assistant Secretary and the Secretary.

Result.—Estimates of appropriations are not based on an approved general plan or project, and priority is seldom indicated. This results sometimes in requests for appropriations not absolutely required, and at other times in the omission of necessary items. The appropriations requested by various bureaus are not sufficiently considered in relation to each other and to the Navy as a whole.

How corrected.—If the Navy Department is required to submit its plans and projects annually, all appropriations will be in accord with such plans and projects. Congress will be able to obtain sufficient knowledge of the Navy's plans and projects and of the relation which the appropriations bear to the execution of the projects.

(d) Too much centralization over the execution of detailed plans.

Result.—Neglect of the principle of "due subdivision of labor and decentralization of authority and responsibility." This results in overburdening the higher authorities with unnecessary routine duties and prevents subordinates from executing their proper parts of the plans with initiative and enthusiasm.

How corrected.—Proper organization and proper plans will allocate duties and responsibilities, and avoid overcentralization in the execution of detailed plans. Overcentralization in execution is most often the result of inadequate plans but it is also due to reluctance to share responsibilities with subordinates. The proper system of command is indicated by the following:

In giving an order the superior has two problems:

First. To set clearly before the subordinate the result to be obtained and limits outside of which the subordinate has no discretion; and,

Second. To allow the subordinate full discretion within those limits.

The second problem is of no less importance than the first, and is equally necessary to efficient performance.

(e) Too much routine duty required of the Secretary.

Result.—Inadequate time for study of policies and general plans.

How corrected.—Chief of Naval Operations would act as his executive officer. The Secretary should be relieved of as much routine work as possible, such as the signing of orders to officers, for one instance.

(f) Inadequate personnel for preparation of plans.

Results.—Confusion and delay to some extent.

How corrected.—Provision of proper personnel and centralization of professional responsibility for the preparation of policies and general plans. Necessity for annual plans and projects.

(g) Inadequate inspection of shore stations and naval districts.

Results.—Dissimilar organizations and methods.

How corrected.—Chief of Naval Operations has supervision over all activities, and may direct inspections and recommend to the Secretary the necessary changes.

74. Several attempts have been made in the past to reorganize the Navy Department, but only such reorganizations as are made by law are effective.

75. The Navy Department has reached a stage of development and expansion which makes economy and efficiency of the utmost importance. There are probably many desirable minor changes in the organization which I have not mentioned.

76. The changes that I have suggested are, in my opinion, the important ones. Having taken this step, the later minor steps will be taken practically automatically.

77. In the interests of economy and efficiency it is desirable that the first steps in reorganization be taken promptly.

APPENDIX TO STATEMENT OF ADMIRAL MAYO.

Council of national defense as constituted by the nations named.

FRANCE.

PARIS, April 3, 1906.

ARTICLE 1. A supreme board of national defense is instituted for the examination of all questions requiring the cooperation of two or more ministerial departments.

* * * * *

ART. 5. The supreme board of national defense shall be composed of the president of the board of ministers, presiding; the minister of foreign affairs; the minister of finance; the minister of war; the minister of marine; the minister for the colonies.

ART. 6. The chief of staff of the army, the chief of staff of the navy, and the president of the consultative committee for colonial defense shall be present at meetings of the supreme board, with deliberative voice.

ITALY.

By a decree of the 16th of July, 1897, the supreme mixed commission for the defense of the Empire was organized. This is charged with the duty of giving advice on all important questions concerning the defense of Italy. The Duke of Genoa is president; the members are: The admiral president of the superior council of the navy, the generals designated to command the various armies in case of war, the admirals designated to command the fleets, and the chief of the general staff of the army and of the navy. The generals, the commanders of army corps, the inspectors general and admirals, when it appears that their presence will be useful, may be invited to attend the meetings of the commission for consultation only. (*L'Etat Militaire des Principales Puissances Etrangères en 1902*, Lauth.)

JAPAN.

The Japanese have what is known as the supreme military council, composed of the minister of foreign affairs, representing the diplomatic side, four general officers and two flag officers. This was created in 1898.

The supreme council of war, which was created in 1904, is an addition to the supreme military council. This supreme council of war may be regarded as the Emperor's advisers and staff officers on all important matters pertaining to war. It consists of the personnel of the supreme military council, the ministers of war and of the navy, the chiefs of the general staff of the army, and the naval staff board. (Taken from *Japan Year Book*, 1907.)

GREAT BRITAIN.

Matters of naval and military policy are considered by a committee of the cabinet called the defense committee. It is presided over by the prime minister, and always includes the secretary of state for war, the first lord of the admiralty, the secretary of state for foreign affairs and for India, the chancellor of the exchequer, the chief of the general staff, the director of naval intelligence, the first sea lord of the admiralty, and the director of naval operations. Other naval and military officers of rank and experience are asked to attend from time to time.

REAR ADMIRAL WILLIAM S. SIMS, PRESIDENT, NAVAL WAR COLLEGE.

NAVAL WAR COLLEGE,
Newport, R. I., May 13, 1920.

MY DEAR SENATOR HALE: I beg to acknowledge the receipt of your letter of May 7, requesting me to give you any suggestions that may occur to me about desirable changes in the organization of the Navy Department.

In compliance with your request, I inclose herewith a brief suggestion of the principles which I think should be included in any sound organization.

Very sincerely, yours,

WM. S. SIMS,
Rear Admiral, United States Navy.

Senator FREDERICK HALE,
1001 Sixteenth Street NW., Washington, D. C.

COMMENTS OF REAR ADMIRAL WILLIAM S. SIMS, UNITED STATES NAVY, CONCERNING LEGISLATION RELATIVE TO ORGANIZATION OF NAVY DEPARTMENT.

MAJOR OBJECTIVE.

In keeping with the "check and balance" doctrine of our form of government to insure to the Congress the maximum efficiency of the Navy—to insure the maximum return to the country for Government funds allotted by Congress for the Navy.

IMPORTANT CONSIDERATIONS NOT AT PRESENT ADEQUATELY PROVIDED FOR.

Congress provides the means of creating a body of expert professional personnel to handle the Navy.

Purely from a standpoint of business efficiency and of insuring return on money invested, it is evident that Congress should require the maximum utilization of the expert knowledge which it creates.

Experience has shown the necessity of specifically requiring by legislation the method by which the above expert knowledge should be utilized.

The above-mentioned expert knowledge refers solely to subjects commonly termed "military" or to "the profession of arms." In the Navy military questions concern those of the following types:

- (a) Determining military characteristics of men-of-war and their equipment.
- (b) Methods of inspection and supply of the above.
- (c) Providing and training of personnel of the Navy.
- (d) Disposition and employment of ships and men.
- (e) Preparation and execution of military plans.
- (f) Internal organization and management of the Navy and of its ships and supporting shore establishments.
- (g) Discipline of the Navy, etc.

All of the above and kindred questions must be based upon national policy; but once that policy is determined and laid down the Congress should see to it that it is carried out in accordance with the responsible advice of trained military (naval) experts.

Acceptance of such military measures, of course, rests with the President or his authorized representative, but Congress is entitled to know upon what grounds such decisions are based.

The present laws go into too much detail as regards the various essential but subordinate parts of the Navy Department organization without providing for the coordination of those parts and without insuring accomplishment of some of the principal considerations above set forth.

From the standpoint of the Congress, the following should be laid down by legislation:

(1) A Cabinet officer (civilian, appointed by and with the advice and consent of the Senate) should act as the direct representative of the President in charge of the Naval Establishment, charged with insuring that the Navy is prepared and conducted in accordance with national policy.

(2) This Cabinet officer should have but two principal subordinates:

(a) A civilian Assistant Secretary, to whom should be delegated all civil questions connected with the Navy, such as detailed dealings with Congress, labor, contracts, appropriations, etc.

(b) Military assistant, to whom should be delegated all questions of a strictly military nature.

(3) In order to relieve the above assistants of undue burden of details, the law should recognize certain other subordinates, such as the present chiefs of bureaus, who should be empowered to expend and be accountable for expenditure of funds; but the activities of these subordinates must be entirely controlled and directed by the above two principal assistants of the Secretary. The coordination of their individual activities is of far greater importance than any of the activities themselves, which activities are in a large degree futile and inefficient unless properly coordinated. It is to the lack of this coordination that is due the inefficiency of the Navy Department.

(4) Experience has shown the necessity of further congressional action in order to insure the accomplishment of the considerations set forth above. The following are suggested:

(a) The military assistant shall be held strictly accountable, subject to the supervision of the Secretary as regards national policy, for the military efficiency of the Navy, its preparation for war, and its conduct in war.

(b) All measures of a strictly military nature must, of course, be in accordance with general political policies laid down by the Secretary, but the law should specifically require that the responsibility as regards military consequences shall rest entirely with the military assistant, unless he is clearly and definitely overruled by higher authority. Having the responsibility for military results placed squarely upon him the military assistant must have the necessary authority to enable him to insure that such results will be satisfactory.

In other words, the Congress should require by law that when the expert advice and assistance, which it provides, are overruled or disregarded, the fact can in no wise be obscured as a matter of official record; and when such occurs the fact should always be known to the Congress when acting in the discharge of its constitutional duty of supervision over the Navy. The present system allows great chances for obscurity of responsibility. Witness the present senatorial efforts to fix responsibility.

It is submitted that the above provisions are all that should be recognized by law. Any attempt to go further may do more harm than good.

The only possible addition that might be suggested is for Congress to require, with all estimates for appropriations, the military plans upon which they are based. This would of necessity require measures of secrecy.

REAR ADMIRAL FRANK F. FLETCHER (RETIRED).

WAGNER INN,
Poughkeepsie, N. Y., May 16, 1920.

Senator FREDERICK HALE,

Chairman Subcommittee on the Naval Investigation.

MY DEAR SENATOR HALE: In reply to your letter regarding suggestions as to desirable changes in the organization of the Navy Department I am of the following opinion.

First. The assistant for material now in the office of the Chief of Operations should be made chief of material acting directly under the Secretary of the Navy.

third. The General Board should be established legally by act of Congress as an advisory body of experienced officers to the Secretary of the Navy. In addition to its present duties it should be intrusted with the preparation of war plans. The war plans are founded upon a continuity of policy and study and should not vary according to the ideas of each changing executive. No executive officer of the Navy Department should be a member of the General Board.

Fourth. Create the office of chief inspector who would act in an advisory capacity to the Secretary of the Navy as to the condition and efficiency of the various parts of the naval establishment. This officer should also be a member of the General Board.

The present organization of the Navy Department is founded upon the so-called Meyer plan of organization in so far as the establishment of the Office of Chief of Operations. It is much superior to any previous plan of organization the department ever had and has stood the test of a war that called for large expansion of the Navy. The slight modifications which I have suggested will be believed to be in accordance with sounder principles of organization and will tend to greater stability.

Very respectfully,

F. F. FLETCHER,
Rear Admiral Retired.

REAR ADMIRAL AUSTIN M. KNIGHT, PRESIDENT, BOARD OF AWARDS.

BOARD OF AWARDS, NAVY DEPARTMENT,
Washington, D. C., June 10, 1920.

DR. FREDERICK HALE,
United States Senate.

MY DEAR SENATOR: Replying to your letter of May 7 requesting recommendations as to a reorganization of the Navy Department.

After very careful consideration of the subject, I find myself unable to suggest any plan of reorganization which, in my opinion, gives promise of material improvement. The present organization of the department is not perfect, but is far from being inefficient, and I confess that if I were given authority to reform it I should not know where to begin. It is easy to say that the Chief of Operations should have more power. But I do not see how he could be given any power which would remove him from the authority of the President, who is the Commander in Chief of the Navy, or from that of the Secretary of the Navy, who is the President's representative and deputy.

It has been suggested that the Chief of Operations be appointed by Congress and made answerable to Congress alone, but it appears to me that this would be a direct violation of the Constitution and of the whole theory of our Government, and even if this were not the case, the plan would have the vital faults of constituting many authorities for one, of dissipating instead of concentrating authority, and of making it wholly impossible to place responsibility for errors. The lack of preparedness for war in the spring of 1917 could not have been corrected by the Chief of Operations by virtue of any additional powers which might have been attributed to him on the statute books. The obstacles which prevented the effective preparation of such forces as were theoretically subject to his control were not such as could be reached by legislation. The only hope of preventing similar obstacles from arising in the future, with similar results, is in the development of a public sentiment which shall recognize that the Navy exists for national defense, and for no other purpose whatsoever, and that it is not to be maintained in a condition of efficiency for that purpose if it might better be abolished.

In January, 1915, I received a telegram from the Secretary of the Navy inquiring what the Naval War College considered should be the principal effort of the fleet. I replied:

"The War College considers that every effort of the fleet and every effort of every department in connection with the fleet should have for its sole aim the war efficiency of the fleet. Every effort which does not directly contribute to this is in itself a wasteful expenditure of energy, and so far as it is a diversion from this end, is distinctly harmful."

When a public sentiment shall have been developed which recognizes the above as the mission of the Navy and when this sentiment shall have found concrete expression in all those branches of the Government which provide for and direct the activities of the Navy, then and not until then, will the Navy be brought to a state of adequate preparedness and maintained in such a state. And legislation does not create public sentiment, but follows it.

Preparedness for war is one thing. The conduct of war is quite another. Here there will be no necessity for creating public sentiment in support of the Navy. Every facility that can be made available when war is actually on will be placed at the disposition of the controlling authority. But here again there can be no question as to where the controlling authority is lodged. In war, as in peace, the President is the Commander in Chief and the Secretary of the Navy is his representative. If they recognize their own inevitable limitations in matters purely technical, and if they have confidence in the Chief of Operations, they will leave to him the direction of the fleet, subject only to considerations of large policy such as sometimes necessarily transcend policies strictly military. If they fail to recognize their own limitations, or lack confidence in the Chief of Operations, they may and probably will, obstruct and thwart him. And no laws that can be passed will prevent this. And just here I desire to say that I am one of those who believe that after the United States declared war in April, 1917, the administration of the Navy was, upon the whole, surprisingly effective, and the record of the Navy one of which every American has reason to be proud—all the prouder perhaps because what was accomplished was accomplished with very inadequate facilities. I have no sympathy whatever with criticism which selects a few failures and errors here and there and holds them up to the country as if they were typical of the Navy's record as a whole. I believe the recent controversy has given the country an entirely false impression of the work accomplished by the Navy in the war and that it has done the Navy infinite harm. Some day the world will recognize the facts and while judging correctly the lamentable lack of preparedness with which we entered the war, will judge correctly also the splendid successes attained.

To sum up. I think that the present organization of the Navy Department, while probably not the best that could be devised, is adequate for successful administration both in peace and in war; but that, like all other organizations, it depends for its efficient working upon the personalities and the temperament of those who direct it, and—a consideration of vastly greater importance—upon the sentiment which lies back of all executive authority in the hearts and minds of the people of the country and their representatives in Congress.

AUSTIN M. KNIGHT,

Rear Admiral, United States Navy, Retired.

REAR ADMIRAL BRADLEY A. FISKE, RETIRED.

NEW YORK CITY, May 11, 1920.

MY DEAR SENATOR HALE: In reply to your letter of May 9, 1920, my only suggestions are:

1. That the provision establishing the Office of Chief of Naval Operations that was recommended unanimously by the House Naval Committee in January and February 1915, be enacted into law. If this be done the Secretary of the Navy and the Chief of Naval Operations can then map out the details needed to carry it into effect, and modify them from time to time as needed. If the attempt be made by Navy officers and Congressmen not familiar with the duties of the Chief of Naval Operations to arrange details in advance, I fear that important mistakes may be made. If such mistakes are prescribed by law, great injury may be done.

2. That the selection of an officer to fill the Office of Chief of Naval Operations be made in accordance with the recommendation of a board of flag officers, as is now done in making regular promotions. Of this board the retiring Chief of Naval Operations it would seem should be the chairman. Clearly it is as wrong to vest the appointment of a Chief of Naval Operations in an official not professionally qualified to select the best man as it would be to so vest the selection of officers for ordinary promotion.

Respectfully,

BRADLEY A. FISKE,

Rear Admiral, United States Navy, Retired.

**REAR ADMIRAL JOSIAH S. MCKEAN, COMMANDING BATTLESHIP
DIVISION 6, UNITED STATES PACIFIC FLEET.**

UNITED STATES PACIFIC FLEET,
BATTLESHIP DIVISION 6, U. S. S. "WYOMING," FLAGSHIP,
San Diego, Calif., May 29, 1920.

HON. FREDERICK HALE,
*Chairman Subcommittee Committee on Naval Affairs,
United States Senate.*

MY DEAR SENATOR: I have no recommendations to make for any change in the Navy Department organization other than those already submitted in my testimony before the Senate Committee on Naval Affairs.

Very sincerely,

J. S. MCKEAN,
Rear Admiral, United States Navy.

**REAR ADMIRAL NATHAN C. TWINING, UNITED STATES PACIFIC
FLEET.**

UNITED STATES PACIFIC FLEET,
U. S. S. "NEW MEXICO,"
San Pedro, Calif., May 22, 1920.

HON. FREDERICK HALE,
United States Senate, Washington, D. C.

MY DEAR SENATOR: Agreeably to promise in my letter of May 17, I forward herewith inclosed a statement of my views with respect to desirable changes in the organization of the Navy Department.

Trusting that this paper may be received in time to be made use of and that it will be of some assistance to the committee in reaching their conclusions, I am,

Very sincerely, yours,

N. C. TWINING,
Rear Admiral, United States Navy.

NAVY DEPARTMENT ORGANIZATION.

I. GENERAL PRINCIPLES DETERMINING ORGANIZATION.

1. The general principle determining the organization of any body for the transaction of business or the accomplishment of an object is that the organization shall admit of the activities of the concern being carried on with a maximum of efficiency.

2. Efficiency, whether of a machine, a business corporation, or an office is the ratio of output to input—of result to expenditure. The efficiency of a machine is easily calculated; the efficiency of a commercial business is ascertainable in a relative way and may be measured by the rate of interest earned on the capital invested. The efficiency of a navy is less easily ascertained since its activities produce nothing tangible and of a value directly estimable in terms of money. Its product is protection to the nation and this may take either the form of prevention of war or that of success in war. An important factor in the prevention of war is securing and maintaining respect for the country on the part of other countries; a navy notoriously inefficient or unready can not do this. Another element of great weight in preventing war is strength which depends both on numbers and types of ships, and on quantity, quality, and degree of training of personnel, both commissioned and enlisted.

3. The Navy Department as an executive department of the Government has no reason for existence other than the maintenance and operation of an efficient Navy. Its primary purpose must be the execution of the wishes of the country as expressed in the laws of Congress with respect to the maintenance of a navy as an efficient military arm of the Government for the purposes of affording protection to its citizens when needful; of commanding respect for the Nation; of minimizing the probability of war; and, in the last analysis, of waging successful war with a minimum expenditure of lives and money.

4. If a navy is to fulfill its purpose efficiently its activities in peace as well as in war must be so directed as to support the national policies. All policies must be formulated and the means of furthering them decided by the Government, the civilian representatives of the people in legislative and executive authority. War is but one of the instruments of the Government wherewith to enforce the Nation's policies. It is, therefore, obvious that the head of the Navy Department, the executive agent of the President, must be a civilian and that there must be no official or agency admitted into the organization to reduce his authority or responsibility as the immediate agent of the Chief Executive and Commander in Chief.

5. While the determination of policy and the decision to make war are essentially civil functions of the Government, the prosecution of war is essentially a military function; it is the practice of a military profession and can be safely entrusted to the military agents of the Government only. As success in the prosecution of war depends to a great extent on the adequacy of the preparation therefor and the efficiency of the forces employed, it is obvious that, in the matters of preparation and training, the advice of military agents must be given great weight.

6. The difficulty, indeed the impossibility, of evaluating exactly the efficiency of a navy is obvious; it should be equally obvious that the naval profession, like any other profession, is best understood by those trained in it, and that such professionally trained men are best qualified to judge of the efficiency of a navy and of the methods best suited to enhance efficiency.

7. Preparation for war (which is also preparation against war) involves, so far as a navy is concerned, the determination of the numbers and types of ships to be built, methods of training and governing personnel, character of peace-time employment of the forces, preparation of war plans, and selection and equipment of naval bases. In all these matters those who will be called upon to prosecute a war must have a voice, strongly advisory if not decisive.

8. The considerations just set forth make it obvious that the Secretary of the Navy must be provided by law with assistants professionally competent to advise him and invested with authority, under the Secretary, to carry on the multifarious duties involved in the maintenance and operation of an efficient Navy.

9. It is, further, obvious that the Congress, in which reside authority to provide and maintain a navy and power to make war, is entitled to and must have the opinions of professionally competent persons to guide it in exercising these functions.

II. PRESENT ORGANIZATION.

10. The existing organization of the Navy Department is one of division into bureaus and offices, with no superior or coordinating authority except the Secretary of the Navy himself.

11. The Secretary of the Navy occupies a position recognized by the Constitution as the head of an executive department; legislation, judicial decisions, precedents, and custom have invested him with all the powers needful to the exercise of his office.

12. The great bulk of the business of the department is transacted by seven bureaus and the Division of Operations. The position and, in a measure, the powers and duties of chiefs of bureaus are prescribed by law, but all orders issued by them are considered as emanating from the Secretary of the Navy. (Sec. 420, R. S.) Of these bureaus, five are mainly concerned with matériel and two with personnel; they are coequal in powers and authority, and there is no coordinating authority placed over them except the Secretary of the Navy himself. No one of them is concerned with the preparation of war plans, training of the fleets (as distinguished from education and training of personnel), or the prosecution of a war.

13. The Chief of Naval Operations, provided for by law, is charged, under the direction of the Secretary of the Navy, with the operations of the fleet and with the preparation and readiness of plans for its use in war. His duties are performed under the authority of the Secretary of the Navy, and his orders are considered as emanating from the Secretary, as in the case of the chiefs of bureaus.

14. The civilian Assistant Secretary of the Navy performs such duties as may be assigned him by the Secretary or by law; he also derives his authority from the Secretary of the Navy.

- (b) The lack of a legally responsible Chief of Operations.
 - (c) The lack of an inspection branch.
16. The Secretary himself, the only coordinating authority provided by law, can not effectively exercise such authority for two principal reasons:
- (a) Lack of technical and professional knowledge and training.
 - (b) Volume and variety of work involved being beyond the capacity of any one person.

17. For these reasons the absence from the organization of a professionally competent coordinating authority impairs the mutual support among the several component parts of the department and prevents the maximum effort being efficiently brought to bear to defeat an enemy in time of war and to secure adequate return for money expended in time of peace.

18. The Chief of Naval Operations, under the present law, is charged with certain duties, but is not legally responsible for their discharge. He has no authority or responsibility for the execution of war plans and can not, therefore, require the several coordinate bureaus to direct their activities along the lines that will most effectively further the plan. During the late war, by common consent or by the Secretary's order, the bureaus subordinated many of their major activities to the authority of the Chief of Naval Operations, but this had its origin in the necessities of war, and reversion to the former conditions has already begun.

19. Many Secretaries have sought to provide themselves with agencies through which they might secure the technical advice they felt they required in the discharge of their duties; such agencies have been the Board on Construction, the General Board, the aids for personnel, material, inspection, and operations of the fleet, the advisory council. Some Secretaries have, as was well known, adopted some one bureau chief as principal adviser. None of these agencies had the prime requisite of responsibility, i. e., no one of them was responsible for executing plans based on its advice.

20. The departmental organization provides no agency for inspecting the work of the several bureaus and offices and the field activities under the control of the department. Reference is not made to the matériel products of the bureaus and offices, but to their activities in general. In commercial life the public—the consumer—is the inspector; in the Navy numerous inspecting agencies are employed, but there is no branch or division of the department having the duty of keeping the head of the organization informed as to the efficiency of the activities carried on under his authority nor of the extent to which efforts are being directed toward the common end of securing an efficient Navy.

IV. SUGGESTED CHANGES IN ORGANIZATION.

21. The prime requirement in amending the organization of the department is that the Chief of Naval Operations be given authority as coordinator of the activities of those bureaus and offices of the department that are directly concerned with the building, equipping, supplying, and operating the vessels of the Navy, equipping and operating naval bases, navy yards, and naval stations, and with providing, training, and governing the personnel.

22. The existing bureaus and offices included in this category are:

- (a) The Bureau of Navigation.
- (b) The Bureau of Medicine and Surgery.
- (c) The Office of the Judge Advocate General.
- (d) The Office of Naval Intelligence.
- (e) The Office of Naval Communications.
- (f) The Bureau of Construction and Repair.
- (g) The Bureau of Steam Engineering.
- (h) The Bureau of Ordnance.
- (i) The Bureau of Yards and Docks.
- (j) The supply branch of the Bureau of Supplies and Accounts.
- (k) The Naval Overseas Transportation Service.
- (l) The Hydrographic Office.
- (m) The Marine Corps.
- (n) The Office of Gunnery Exercises and Engineering Performances.

23. To the above should be added:

(a) A bureau of aeronautics.

(p) An office of director of navy yards and naval districts.

24. Unless and until an inspection division is established, the Board of Inspection and Survey should be under the Chief of Naval Operations.

25. The portions of the Navy Department which need not be subject to the coordinating authority of the Chief of Naval Operations are the following:

(a) Secretariat of the department (chief clerk's office).

(b) Financial and accounting branch of the Bureau of Supplies and Accounts.

(c) Office of the Solicitor.

26. The second requirement is that the Chief of Naval Operations be invested by law with power and authority concurrent with that of the Secretary of the Navy in execution of plans approved by the Secretary. The design of this provision is not to curtail the authority of the Secretary of the Navy nor would it have that effect. Its purpose is to make the Chief of Naval Operations legally responsible for executing the plans prepared by him or under his direction; under its terms the Chief of Naval Operations could not carry out any policies or designs contrary to the desires of the Secretary, because he would always be subject to the Secretary's orders and would be removable. The possession of such authority by the Chief of Naval Operations would make it incumbent on him to resign his office when overruled by the Secretary in any vital matters.

27. No general reorganization of the Navy Department should be undertaken except after thorough study of the subject by a commission authorized by Congress; the composition of such a commission should be so prescribed by Congress as to insure its including in its membership:

(a) Naval officers of rank and experience.

(b) Civilians of recognized standing and ability as organizers of business enterprises.

Such commissions have been appointed in the past and their reports have been published, but conditions have changed in recent years and the subject is worthy of the careful study of the most competent persons available.

CAPT. WILLIAM V. PRATT, COMMANDING U. S. S. "NEW YORK."

U. S. S. "NEW YORK,"

Navy Yard, Puget Sound, Wash., May 17, 1920.

Senator FREDERICK HALE,

Chairman Subcommittee Senate Committee on Naval Affairs.

MY DEAR SENATOR HALE: I beg to acknowledge your letter of May 7, 1920, just received by me at Puget Sound Navy Yard.

The suggestions you ask for I inclose as a separate paper. That paper is merely a statement of the present laws governing the organization of the Navy Department, with the changes I should like to see made in order to give the Navy what, to my mind, would be a sound organization.

In this paragraph I will attempt to briefly outline the reasons why such a change is necessary:

(a) In the first place, the mass of evidence submitted in the recent investigation shows in point of fact that at the declaration of war the Navy was not as fully prepared in material or personnel as it should be.

(b) That while this lack of foresightedness in the matter of adequate preparation made no special difference in this particular war, owing to the peculiar character the war assumed, and, above all, owing to the fact that our Navy was given time to prepare—our enemy being contained and held by the throat by a superior navy—yet for a future war such a state of affairs would be a source of danger to our country.

(c) That the present law does not definitely place the responsibility for military preparedness before war is declared, nor of military operations after war is declared, upon the proper military head, nor does it give the requisite power to the proper military head to efficiently administer the purely military functions of the Navy during the two periods aforesaid.

(d) That the present system permits of a complete change in the approved plan for military preparedness and operation of our Navy, even on the brink of or during a war, due to a change in the civilian head.

(e) That under the present system there can be no continuous approved plan for military preparedness or operation which is not subject to the personal views of the civilian head, who of necessity approaches this task untrained in naval matters and unschooled in the art of war.

(f) That there is nothing in the law which prevents the civilian head from exercising direct military authority in war if he so chooses to do, regardless of his competency in this technical subject, or of the results which may follow.

(g) That the law does not provide for one chief naval adviser, from whom the civilian head may receive his advice, the result being that there may be as many military advisers as there are persons to consult with, any one of whom may be competent or incompetent. The outcome of this system is that there can always be found a naval adviser who will advocate a plan, be it good or bad, and the responsibility can never be definitely fixed. The civilian head acts upon the advice of a naval adviser, but the adviser assumes no responsibility for his advice.

(h) That there is no military head definitely appointed by law to coordinate the various technical operations of the Navy, according to approved continuous plans for preparation and operation.

(i) That the responsibility for the proper choice of a competent chief naval adviser is not definitely fixed upon the civilian head. The result of the present system is not necessarily to choose the best men, but such men as will lend themselves most readily to the views of the civilian head, be they sound or unsound.

(j) That the General Board is a creation of Naval Regulations and not of law, and that its functions, instead of being purely advisory, are a combination of the advisory and administrative, in that the board is made responsible for detailed war plans. The board shares this responsibility with the Chief of Naval Operations, thus dividing it and making it impossible to fix it. The functions of this board should be purely advisory. It should be the balance wheel of the Naval Establishment and its reports should go through the Secretary to Congress.

(k) Finally there is not fixed by law any definite method of procedure whereby in case of a clash of opinions between the civilian and military heads of our Navy in regard to the adequateness of the existing plans in vogue for safeguarding the naval preparedness of our country, the matter can in a proper manner be laid openly and honestly before the public, whose interests are the interests at stake.

I am forced to the above conclusions from the experience gained in the past war, while serving in the office of Operations as assistant for Operations and as Assistant Chief of Naval Operations, and to some extent responsible for the operations conducted by that office, and for its expansion and reorganization during the war. The above statements are made without any personal feeling or animus in the matter, but so strongly am I impressed with the necessity for a change, that I voluntarily state that, with the experience of the war behind me, I would decline to be honored with an appointment as Chief of Naval Operations, though it be the highest appointment in our Navy, unless I felt that I could by law, honestly and efficiently perform the duties which I believe that officer owes to his country, and assume the attendant responsibilities.

Very sincerely and respectfully, yours,

W. V. PRATT,
Captain, United States Navy.

[Taken from United States Naval Regulations.]

NAVY DEPARTMENT—ORGANIZATION.

PRESENT LAWS GOVERNING SAME.

ART. 101. There shall be at the seat of government an executive department to be known as the Department of the Navy and a Secretary of the Navy, who shall be the head thereof. (Sec. 415, R. S.)

ART. 102. (1) An Assistant Secretary of the Navy is authorized by law, who shall perform such duties as may be prescribed by the Secretary of the Navy or required by law. (Acts of July 11, 1890, and Mar. 3, 1891.) All orders issued by the Assistant Secretary of the Navy in conducting the duties assigned him

shall be considered as emanating from the Secretary and shall have full force and effect as such.

(2) In case of the absence of the Secretary of the Navy his duties shall be performed by the Assistant Secretary of the Navy. (Sec. 177, R. S.)

ART. 103. (1) There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy, not below the grade of captain, for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparation and readiness of plans for its use in war. (Act Mar. 3, 1915.)

(2) Hereafter the Chief of Naval Operations, while so serving as such Chief of Naval Operations, shall have the rank and title of admiral, to take rank next after the Admiral of the Navy, and shall, while so serving as Chief of Naval Operations, receive the pay of \$10,000 per annum and no allowances. All orders issued by the Chief of Naval Operations in performing the duties assigned him shall be performed under the authority of the Secretary of the Navy, and his orders shall be considered as emanating from the Secretary and shall have full force and effect as such. To assist the Chief of Naval Operations in performing the duties of his office, there shall be assigned for this exclusive duty not less than 15 officers of and above the rank of lieutenant commander of the Navy or major of the Marine Corps: *Provided*, That if an officer of the grade of captain be appointed Chief of Naval Operations, he shall have the rank and title of admiral, as above provided, while holding that position: *Provided further*, That should an officer, while serving as Chief of Naval Operations, be retired from active service, he shall be retired with the lineal rank and the retired pay to which he would be entitled had he not been serving as Chief of Naval Operations. (Act Aug. 29, 1916.)

(3) During the temporary absence of the Secretary and the Assistant Secretary of the Navy the Chief of Naval Operations shall be next in succession to act as Secretary of the Navy. (Act Mar. 3, 1915.)

ART. 104. (1) The business of the Department of the Navy shall be distributed in such manner as the Secretary of the Navy shall judge to be expedient and proper among the following bureaus:

First, a Bureau of Yards and Docks.

Second, a Bureau of Equipment.

Third, a Bureau of Navigation.

Fourth, a Bureau of Ordnance.

Fifth, a Bureau of Construction and Repair.

Sixth, a Bureau of Steam Engineering.

Seventh, a Bureau of Supplies and Accounts.

Eighth, a Bureau of Medicine and Surgery. (Sec. 419, R. S.)

(2) The several bureaus shall retain the charge and custody of the books of records and accounts pertaining to their respective duties, and all of the duties of the bureaus shall be performed under the authority of the Secretary of the Navy, and their orders shall be considered as emanating from him and shall have full force and effect as such. (Sec. 420, R. S.)

(3) The Judge Advocate General of the Navy shall perform such duties as may be lawfully required. (Act June 8, 1880.)

NEW LEGISLATION.

Repeal:

103. (1) There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparation and readiness of plans for its use in war. (Act Mar. 3, 1915.)

(2) Hereafter the Chief of Naval Operations, while so serving as such Chief of Naval Operations, shall have the rank and title of admiral to take rank next after the admiral of the Navy and shall, while so serving as Chief of Naval Operations, receive the pay of \$10,000 per annum and no allowances. All orders issued by the Chief of Naval Operations in performing the duties assigned him shall be performed under the authority of the Secretary of the Navy, and shall have full force and effect as such. To assist the Chief of Naval Operations in performing the duties of his office there shall be assigned for this exclusive duty

retired from active service, he shall be retired with the lineal rank and the retired pay to which he would be entitled had he not been serving as Chief of Naval Operations. (Act Aug. 29, 1917.)

And substitute:

"There shall be a Chief of Naval Operations who shall be an officer on the active list of the Navy appointed by the President, by and with the consent of the Senate, from among the officers of the line of the Navy not below the grade of rear admiral for a period of four years, who shall, under the direction of the President, or of the Secretary of the Navy under the direction of the President, be charged with the development, maintenance, and operation of the fleet and shore stations and with the preparedness and readiness of plans for the operation of the above in war. To assist the Chief of Naval Operations in performing the duties of his office there shall be assigned for this exclusive duty an Assistant Chief of Naval Operations, an assistant for personnel, an assistant for material, an assistant for inspection, and such other officers as the Chief of Naval Operations may deem necessary. The Chief of Naval Operations shall perform such additional naval duties (not otherwise assigned by law) as may be assigned to him by the President.

"The Chief of Naval Operations while serving as Chief of Naval Operations shall have the rank and title of admiral, and shall while so serving as Chief of Naval Operations receive the pay of \$13,500 per annum and allowances. The Assistant Chief of Naval Operations, the assistant for personnel, the assistant for material, and the assistant for inspection, shall while so serving, hold the rank of rear admiral of the upper half and by virtue of their office be senior to the chiefs of bureaus. In the absence of the Chief of Naval Operations they will perform his duties in the order named.

"All orders issued by the Chief of Naval Operations in performing the duties assigned him shall be performed under the direction of the President, or of the Secretary of the Navy under the direction of the President, and his orders shall be considered as emanating from the President or the Secretary of the Navy, under the direction of the President, and shall have full force and effect as such.

"Should an officer while serving as Chief of Naval Operations be retired from active service, he shall be retired with the lineal rank and the retired pay of a rear admiral of the upper nine."

Change 104 (1) The business of the Department of the Navy shall be distributed in such manner as the Secretary of the Navy shall judge to be expedient and proper among the following bureaus:

First, a Bureau of Yards and Docks.

Second, a Bureau of Equipment.

Third, a Bureau of Navigation.

Fourth, a Bureau of Ordnance.

Fifth, a Bureau of Construction and Repair.

Sixth, a Bureau of Steam Engineering.

Seventh, a Bureau of Supplies and Accounts.

Eighth, a Bureau of Medicine and Surgery. (Sec. 419, R. S.)

as follows:

"The business of the Department of the Navy shall be distributed in such manner as the Chief of Naval Operations under the direction of the Secretary of the Navy shall judge to be expedient and proper among the following bureaus:

"First, a Bureau of Yards and Docks.

"Second, a Bureau of Equipment.

"Third, a Bureau of Navigation.

"Fourth, a Bureau of Ordnance.

"Fifth, a Bureau of Construction and Repair.

"Sixth, a Bureau of Steam Engineering.

"Seventh, a Bureau of Supplies and Accounts.

"Eighth, a Bureau of Medicine and Surgery. (Sec. 419, R. S.)

Change 104. (2) That several bureaus shall retain the charge and custody of the books and records and accounts pertaining to their respective duties,

and all of the duties of the bureaus shall be performed under the authority of the Secretary of the Navy, and their orders shall be considered as emanating from him and shall have full force and effect as such (sec. 420 R. S.).

as follows:

Change the words "under the authority of the Secretary of the Navy" to read "under the authority of the Chief of Naval Operations under the direction of the Secretary of the Navy."

Change 104. (5) The General Board of the Navy shall, under the direction of the Secretary of the Navy, perform such duties as are set forth in section 13 of this chapter and such additional duties as may be prescribed from time to time by competent authority.

as follows:

Change from regulation and make law.

"The General Board of the Navy shall, under the direction of the Chief of Naval Operations under the direction of the Secretary of the Navy, perform the general duties set forth in the following paragraphs:

(a) "The General Board shall be composed of Chief of Naval Operations, the Assistant Chief of Naval Operations; the major general commandant, United States Marine Corps; the assistant for personnel; the assistant for material; the assistant for inspection; and the directors of naval intelligence, communications, plans and districts, the chief of bureaus, and, such other officers as the Chief of Naval Operations, under the direction of the Secretary of the Navy, may designate.

"The functions of this board shall be purely advisory. It shall be within their province to consider any subject presented in due form at any meeting. Executive meetings will be held at least once a week, at which either the Chief of Naval Operations, Assistant Chief of Naval Operations, the assistant for personnel, assistant for material, or assistant for inspections shall preside.

"The annual report of the General Board, building program, and the base and personnel program shall be made a part of the Secretary's annual report and be forwarded to the Congress with such comment and recommendations as the Secretary may wish to make.

"All other articles and paragraphs of articles under Chapter II, section 1, not otherwise changed by above law, shall stand as at present."

CAPT. HARRIS LANING, CHIEF OF STAFF, DESTROYER SQUADRONS, UNITED STATES ATLANTIC FLEET.

DESTROYER SQUADRON,
UNITED STATES ATLANTIC FLEET,
U. S. S. "ROCHESTER," FLAGSHIP,
North River, N. Y., May 12, 1920.

MY DEAR SENATOR: Your letter of May 7 asking for such suggestions as I have to make as to changes that might advantageously be made in the organization of the Navy Department has reached me.

For some time I have been making a study of naval organization, both ashore and afloat, with a view to establishing, at least in my own mind, what the organization should be to insure the maximum efficiency at all times. Without going into the arguments for and against I will indicate to you what my decisions are as to the organization of the Navy Department:

First. Abolish the General Board, transferring all the work now performed by the board to the Plans Division of the Office of the Chief of Naval Operations.

Second. Make the Chief of Naval Operations, under the direction of the Secretary, fully responsible to Congress (1) for the plans or recommendations submitted to Congress for the development of the Navy for war, (2) for the maintenance of the Navy in a state of readiness for war, both as to condition of material and as to training of personnel, and (3) for the development of plans for war and the operation of the Navy in peace or war.

Third. Give the Chief of Naval Operations an assistant, to have the rank of vice admiral, who will be designated the Assistant Chief of Naval Operations, who will succeed to the duties of the Chief of Naval Operations in the absence

Fourth. Make it the duty of the Plans Division to prepare for the Chief of Naval Operations (1) the detailed recommendation to Congress that will enable Congress to provide properly for the upbuilding and maintenance of the Navy along the lines called for by the Nation's policies, (2) the general plans for maintaining and training such a Navy as is provided by Congress, and (3) the plans for war and the operation of the Navy in peace or war.

Fifth. As a part of the Office of the Chief of Naval Operations, establish four aids to be designated, respectively, as (1) the aid for operations, (2) the aid for inspections, (3) the aid for personnel, and (4) the aid for material, these aids to take precedence in the order named and to have the rank of rear admiral senior to all other rear admirals, including bureau chiefs.

Sixth. Make the aid for operations the head of the Operating Division of the Office of the Chief of Naval Operations, and make it the duty of the Operating Division to direct the carrying out of all approved operating plans prepared by the Plans Division. Under the aid for operations establish the offices of the director of communications and the director of naval districts.

Make the director of communications responsible for the establishment and operation of the systems of communication.

Make the director of naval districts responsible for proper organization of the naval districts and for the coordination of the work of the districts.

Seventh. Make the aid for inspections the head of an Inspection Division charged with the duty of ascertaining and keeping the Chief of Operations informed of the efficiency of every part of the Navy, including the fleets as a whole and the various subdivisions thereof.

Eighth. Make the Chief of Bureau of Navigation ex officio aid for personnel and make him responsible for obtaining, training, and distributing the personnel in accordance with the approved plans prepared by the Plans Division.

Ninth. Make the aid for material the head of the Material Division and charge him with the coordination of the material bureaus (Ordnance, Steam Engineering, Construction and Repair, Supplies and Accounts, Yards and Docks) in providing the material appropriated for by Congress and in maintaining material in the efficient operating condition required to carry out the approved plans.

That the aid for material may have under his jurisdiction some means of ascertaining the condition of the material of the Navy, make the board of inspection and survey a subdivision of the Material Division.

Tenth. That the Plans Division may at all times have control of all information available, make the Office of Naval Intelligence a subdivision of the Plans Division.

Eleventh. Make the Bureau of Medicine and Surgery responsible for coordination with the aids in carrying out its duties in connection with all approved plans.

Twelfth. In the absence of the Secretary of the Navy and the Assistant Secretary make succession to the duties of Secretary as follows: Chief of Naval Operations, Assistant Chief of Naval Operations, Aid for Operations, Aid for Inspections, Aid for Personnel, Aid for Material; then other bureau chiefs in the present order.

Thirteenth. Make it mandatory that plans or recommendations as prepared under the direction of the Chief of Naval Operations by the various subdivisions of the Navy Department for the upbuilding and maintenance of the Navy be presented to Congress in full, accompanied, if desired, by the studies leading up to the decisions on which the recommendations are based. This is essential in order that Congress may have before it all the expert advice that may be necessary to enable it to reach its decisions. It will not deprive a Secretary of the Navy of his right to approve or disapprove the recommendations submitted, but it will insure Congress having the full and complete information necessary for a full understanding of the situation.

Sincerely, yours,

HARRIS LANING,
Captain, United States Navy.

Senator FREDERICK HALE,
United States Senate, Washington, D. C.

NAVAL INVESTIGATION.

BER W. S. PYE, OFFICE OF NAVAL OPERATIONS, NAVY
DEPARTMENT.

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, June 3, 1920.

MY DEAR SENATOR: In accordance with your request of June 1, 1920. I am submitting herewith a statement regarding the desirability of reorganization of the Navy Department and some comments on conditions now existing in the organization and administration which are capable of improvement.

Very sincerely,

W. S. PYE.

Commander, United States Navy.

Senator FREDERICK HALE.

Chairman Subcommittee on Naval Affairs.

STATEMENT OF COMMANDER W. S. PYE, UNITED STATES NAVY, CONCERNING DESIRABILITY OF REORGANIZATION OF THE NAVY DEPARTMENT.

WHAT AND WHY IS WAR.

War is the supreme type of international competition. So long as individuals compete in business, so long as nations compete for the world's trade, just so long will war be upon this earth. The history of our national development is a history of war. Since the greater proportion of the world has been under the dominion, protection, or influence of a few great nations war has been of less frequency, because of the enormous exertion involved in defeating the larger and more powerful nations whose dominions or spheres of influence now cover practically all of the world.

Such wars as have taken place in modern times have caused a sacrifice of life and treasure that is appalling and, consequently, the recourse to war is less frequent than in the past. Perhaps the World War has left an impression of the seriousness of international conflict which will have a restraining influence in the future, but the amount of fighting that is still in progress in Europe and Asia indicates that human nature is weak and human memory short.

The predominant position of the United States at the end of the World War in industry and finance, our new merchant marine policy, and our relative wealth and prosperity compared to European nations, will make us the rival of the greatest nations of the world and will create that international competition which in the past history of the world has always resulted, sooner or later, in war.

It has often been said that "Experience is the best teacher," and our experience in the conduct of war has taught us many lessons, most of which, however, will be forgotten with the lapse of time if our impressions are allowed to grow dim without some action having been taken to correct our deficiencies.

FOREIGN POLICIES.

The Army and Navy are the instruments which the Government provides for its use in enforcing its foreign policies against such nations as may oppose them. Foreign policies are not necessarily aggressive or offensive in their nature, but even purely defensive policies must frequently be enforced by the potential or dynamic force of the Army and Navy.

Policies appear aggressive or defensive, depending largely on the point of view. China considered her policy defensive in 1894; Russia considered her policy defensive in 1904; Spain probably considered her policy defensive in 1898; and Great Britain, France, and Russia each considered its policy defensive in 1914. Defensive policies do not, therefore, necessarily prevent war.

The characteristics which lead to success in international trade competition are energy, vitality, and intelligence. Trade competition is war under the rules of peace, and until human nature changes materially such competition will often assume its supreme type—war.

Every nation, therefore, provides an insurance against defeat in this supreme competition according to its probable needs under the existing conditions. Each sovereign State must be its own judge of its needs in this respect, but the

income.

The responsibility for the decision as to the strength of the Army and Navy to be maintained and their state of preparation for war lie in a large measure in the executive and legislative branches of the Government.

RESPONSIBILITIES OF EXECUTIVE AND LEGISLATIVE BRANCHES.

The President and Congress have responsibilities regarding the Army and the Navy which have been inadequately recognized in the past. The efficiency with which the Army and Navy are prepared for war whenever war is thrust upon us is largely determined by the extent to which the executive and legislative branches of the Government have fulfilled their responsibilities.

There is, of course, an immense responsibility within the Navy Department and within the naval forces and naval establishments, but this responsibility is definitely and generally recognized, whereas the higher responsibility of the executive and legislative branches is not so definitely distinguished.

In order that my conception of the responsibilities of the executive and legislative branches with regard to the preparation of the Navy for war and its conduct of war may be definitely understood, they are enumerated below:

The President.—During peace (foreign policy): Notification to the Navy of the foreign policy or policies which the Navy should be prepared to support or to enforce; responsibility for the policy of the Nation being such that it can be enforced by the military, naval, financial, and industrial resources of the Nation; assuring himself, as Commander in Chief of the Army and Navy, that the plans of the Army and Navy are consistent with our foreign policy; responsibility for recommending to Congress the legislation necessary to develop the Army and Navy to the strength required to enforce our foreign policies, present or prospective; notification to the executive departments of the probability of war when such exists; selection of the Secretary of War; selection and appointment of the Chief of Naval Operations; selection and appointment of the commanders in chief of the fleets; approval or disapproval of naval policy recommended by the Navy Department; approval or disapproval of the estimates, appropriations, and other important legislation asked for by the Navy Department. After war is declared: The object of the war; the approval of general plans of operations, indicating naval objectives.

The Congress.—Responsibility for the efficiency of the laws regulating the Navy; responsibility for the adequacy of the appropriations and efficiency of other legislation affecting the Navy; the declaration of war.

The Senate.—The approval of presidential appointments of the Secretary of the Navy, the Chief of Naval Operations, and the chiefs of bureaus.

The executive departments immediately concerned in preparation for war are the State Department, War Department, and Navy Department. The Secretaries of these departments should keep the President informed of the effect of our own and other nations' foreign policies on the peace and safety of the country.

This duty is as important during peace as during war, for most national defeats in war are due to the policy of the government not corresponding to the military and naval forces available. This statement really should be reversed—the military and naval forces available, not corresponding to the policy; but, as a matter of fact, policy may change rapidly, while the preparation of the military and naval forces required to enforce the policy may take years.

In order that our Army and Navy may be prepared to support and enforce our foreign policies, those responsible for the recommendations as to the strength and state of preparation of the Navy must be informed as to the policies which guide the actions of the Government. Also, before deciding upon policies, the Government should be informed as to whether or not the Army and Navy are of adequate strength and in an effective state of preparation to enforce such policies.

Congress is likewise intimately concerned with the policy of the Nation and with the authorization of the money necessary to develop and maintain the Navy in the desired state of preparation for war.

There should be in the organization of the Government a board or committee, in which the State Department, the Congress, and the War and Navy Departments would be represented, to consider the effect of our own and other nations' policies on the probability of war, and to advise the President and Congress as to general policies concerning the strength of the armed forces and their state of preparation for war. The Army and Navy should be represented not only by the Secretary of War and Secretary of the Navy, but also by the Chief of Staff of the Army and the Chief of Naval Operations. Such committees exist in most foreign Governments, in Republics as well as in monarchies.

THE NAVY'S OBJECTIVE.

Every efficient organization determines for itself a definite objective and makes plans to attain that objective efficiently and economically. The Navy is an organization spending hundreds of millions of dollars a year. In a general sense, its objective may be said to be "in cooperation with the Army, to support and enforce the foreign policies of the United States." Its immediate objective is indefinite.

Until the general objective is qualified by a statement as to the foreign policies which the Army and Navy are to be prepared to enforce (i. e., the policies which are vital to the interests of the Nation), the Army and Navy must base their plans for war on their own assumptions as to what such policies are.

If these assumptions are incorrect, the recommendations of the War and Navy Departments may lead to extravagance, or possibly to forces inadequate and unsuited to their task.

In efficient government, therefore, the representatives of the legislative, military, and naval branches of the Government should be kept informed of the Government policies which are of such vital importance as to justify war for their enforcement. As preparation for war may require years, it is important that statesmen study the possible future effect of our policies and possible changes in other nations' foreign policies.

Having been informed of the policies which the Army and Navy should be prepared to enforce, the Secretary of War and Secretary of the Navy are responsible for advising the Government as to the requirements of the Army and Navy to fit them to enforce such policies in case force is required; and in case of threatened war, to advise the Government as to what steps toward an efficient state of preparation should be taken.

PEACE STRATEGY.

The formulation of general plans of operations against such nations as the consideration of our own and other nations' foreign policy indicates as probable enemies; the determination of the forces required to execute these plans; the construction of such vessels, base, and naval industrial establishments as may be required; the procurement and training of sufficient personnel; and the organization, distribution, and training of the naval forces has very aptly been called "peace strategy." Very frequently past wars have been won more by the excellence of the peace strategy than by the excellence of strategy of forces in the field.

The aim of peace strategy is effective preparation for war. Successful peace strategy may prevent a war, but if it does not accomplish this, it will at least assure our entry into war prepared to execute the war on a definite plan, with vigor and efficiency.

EFFICIENT PREPARATION OF THE NAVY FOR WAR.

Efficient preparation of the Navy for war consists of many factors. It may be defined as that state of preparation which will insure the Navy's ability to gain and maintain control of all vital lines of communication upon the sea with rapidity and economy.

The analysis of such a state of preparation is necessary in order that in the discussion of the organization and administration of the Navy the responsibility for each factor may be definitely placed. Such an analysis follows:

own conclusions and should inform the Executive when, in its opinion, there is need for an advanced state of preparation.

2. Suitable and effective plans for the preparation, operation, and maintenance of the naval forces and shore establishments: (a) War organization; (b) mobilization plans; (c) operating plans; (d) logistic plans; (e) building program.

3. Naval strength sufficient to control vital lines of communication by sea: (a) Sufficient numbers of suitable types of vessels efficiently designed, constructed, and maintained in readiness. (b) Sufficient personnel, officers and men. (c) Sufficient training of personnel to insure effective employment of weapons, vessels, forces, and fleets, and for the efficient management of the Navy.

4. Well located and sufficiently extensive naval bases and shore establishments to insure efficient maintenance and supply of the operating forces in the theater of operations: (a) Bases and shore establishments of adequate capacity, well situated with relation to probable theaters of operations. (b) Adequate, well-trained, industrial personnel. (c) Adequate stores and material for maintenance, repairs, and new construction.

5. Suitable vessels and floating repair facilities to maintain the fleet in such temporary bases outside the continental limits of the United States as may be required for probable operations: (a) Repair ships, supply ships, salvage ships, tugs, etc. (b) Aircraft, destroyers, submarines, tenders. (c) Dredges and harbor craft. (d) Floating dry docks. (e) Surveying and lighthouse vessels.

Of the five major items of preparation for war, the last three are relative, and their efficiency is due in a large measure to the efficiency of the second item. The second item can be accomplished efficiently only when the first item is efficiently accomplished.

RELATION OF PLANS TO NAVAL DEVELOPMENT.

Policy is the basis of plans. Plans for such wars as are indicated by policy as far as possible should be the basis of all naval development. Plans bear the same relation to the development of a Navy as they do to a factory. Few people in building a factory would be so foolish as to go ahead with the construction without a definite idea of why the factory is to be built; what it is to produce; and without plans, made by experts and approved by the responsible authorities, indicating the size and nature of the building, the type and arrangement of its machinery, etc.; yet the idea that the Navy must be developed and maintained in accordance with definite plans seems to be abhorrent to many people.

This reluctance to make and follow plans has been the cause of endless waste and extravagance, especially in building or continuing the development of Naval Establishments in places where they are not required; in the failure to build, in time of peace, the vessels which were required for future wars; and in delays, loss of efficiency, and extravagance in prosecuting war.

COMPOSITION OF THE NAVY.

The Navy is composed of three main elements: (a) The Navy Department; (b) the naval forces; (c) the shore establishments.

The Navy Department is the main office, the central management, the creative and directive force, the center of power and responsibility, the first link in the chain of command which reaches to each individual in the naval service.

The naval forces are the instruments wielded by the Navy Department to attain the aims of the Government—instruments designed, constructed, and used by direction of the central authority.

The shore establishments are the tools with which the instruments are made and maintained in efficient condition.

MANAGEMENT.

The activities within the Navy Department are primarily those of management. Most types of business require the practice of two arts—that of making its product and that of managing its affairs. In the Navy there is a third art, that of using its product. The manufacture and use of its product are activities of the shore establishments and the naval forces, respectively.

small plant operated by a management that is both technically skilled and financially interested is often very efficient. The Navy began as a small plant, but unfortunately with its growth there has been the usual tendency to ignore and even despise the problems of management.

As a business develops the problems of management grow in more than direct ratio. By and by it begins to be realized that the business is no longer as efficient as it was, although in its technical processes it may be as good as ever or better. Finally it will probably be realized that it is in management that the losses are occurring.

The Navy has reached this stage. The war accentuated the need for efficient management, and it was primarily in this field that the Navy was found wanting. The great size and complexity of the Navy demands, if efficiency and economy are to be obtained, a new system of management.

Knowledge of theory and practical experience are necessary on the management side as well as the technical side of business. Ability in both lines are not apt to be found in the highest degree in one person. Either technique or management is so absorbing that it is a rare individual who has the capacity to master both. This necessity for dual personality in management must be solved by organization.

Management is judicious use of means to accomplish an end. In the case of the Navy this end is the enforcement of our foreign policies. Efficient management determines upon definite aims and seeks to attain them with resolution and courage. Management can not succeed by dealing with events as they occur, but must foresee and forestall events.

As indicated in the requirements of "Efficient preparation for war" (pp. —), the statement of or conclusions in regard to policies outlines the aim of the management of the Navy.

Subparagraph 2 of the enumeration is the exercise of foresight, and subparagraphs 3, 4, and 5 indicate the means of forestalling events.

The World War developed the armies and navies of many nations to a point of expansion and complexity of operations beyond the capabilities of their respective managements as then organized. Great Britain and France have already reorganized the management of their navies, and Admiral Von Tirpitz's memoirs show plainly that the German system was far from perfect.

It is not strange that after years of peace the organizations should have been found inefficient for war. Unless conditions which will exist in war are kept constantly in mind during peace organization is most apt to be modified to suit the conditions of peace rather than those of war, for which such organizations are created.

REORGANIZATION BRITISH NAVAL MANAGEMENT.

A statement of the first lord of the Admiralty recently presented to both Houses of Parliament frankly admits the defects which existed in the organization of the Admiralty and indicates the new policy of the Admiralty to correct the defects. Various quotations from this statement will be made at appropriate places to indicate how these proposed changes coincide with the changes which must be made in the organization of our Navy Department if the maximum efficiency is to be attained.

The primary changes in management accentuate the element of foresight. That part of the organization charged with this duty being called, in the British Admiralty, the war staff. The following is quoted from the statement of the first lord of the admiralty:

"As it exists to-day, the war staff at the Admiralty, it is correct to say, is largely a war product. Before the war the staff consisted of the intelligence division, operations division, and mobilization division. No 'policy' or 'planning' division had then come into being, and no division of the staff dealt with the tactical side of naval war, types of ships, and use of weapons. The exigencies of war brought about an expansion of the Admiralty, including the divisions dealing with the operations and requirements of war, and emphasized the need for separating operational work on the one side from the work of administration and supply on the other. The reforms were carried out by the Admiralty under war conditions, and as a consequence certain logical divisions of duty in the naval staff organization could not be effected.

"The main consideration on which we have worked in improving the Admiralty staff organization has been to strengthen that side of the staff which

staff view on these matters must be kept in the forefront, otherwise there is the danger that requirements of design and supply will dictate the principles relative to use and employment, resulting in the weapon becoming the master and not the servant of the tactician.

"The war has enabled us to test the weapons forged during a century of peace, and has shown that some of them were unsuitable and inadequate. It is clear that the reason they were so was not so much the fault of the design or manufacture, as that the designers are now shown to have been incorrectly or incompletely advised as to the fighting requirements of the moment.

"In order that progress in naval material may be steady, consistent, and well judged, and not impulsive and jerky, it must be based on continuous study and coordination of the lessons of war, and of experience and progress of our scattered fleets in their peace exercises and practices. The design of our ships must not and should not depend on the impulse of an individual nor merely on the mechanical possibilities of the moment, though the latter must necessarily limit the immediate accomplishment of our whole aim. Design must primarily depend on closely reasoned 'requirements,' based on evidence continuously and steadily accumulated from the lessons of our fleets, for whose use the ships and weapons are to be supplied. The aim must, and necessarily will, be always in advance of what can be provided by the science of the day.

"The work thus indicated is the work of the staff, and certain divisions of the staff are therefore being grouped under the assistant chief of the naval staff to deal with questions relating to the use of weapons, types, and designs to meet future developments, cooperation of aircraft and their employment in naval war, weapon technique, and the introduction of new weapons. In fact, the assistant chief of the naval staff will be responsible under the chief of the naval staff to the first lord for dealing with all staff questions affecting battle tactics and fighting efficiency.

"The divisions of the naval staff dealing with operations, policy, intelligence, and training have been similarly placed under the deputy chief of the naval staff, the accepted principle of organization that current work and future work shall not be dealt with by the same division being closely adhered to. Under the operations division will come all those matters of current importance affecting the movements of ships and defense of ports, whilst the policy division will investigate future strategical questions, strengths of fleets, and development of dockyard and other facilities to meet future requirements, in accordance with the policy laid down by His Majesty's Government.

"Briefly, then, the organization of the naval staff to meet peace requirements is as follows: At the head of the naval staff is the chief of the naval staff, responsible to the first lord for the fighting efficiency of the fleet and the strategic and operational instructions to carry out policy. Under the chief of the naval staff the deputy chief of the naval staff on the one side is responsible for operations, policy, intelligence, and training, and the assistant chief of the naval staff on the other side is responsible from the staff's side for the development and use of material, including types of vessels, weapons, and tactics.

"Under this organization war experience will be fully laid to heart and the lessons applied to naval training and naval progress. Further, by these means the staff is reduced to the minimum numbers compatible with efficiency, whilst at the same time rapid expansion on sound lines is allowed for in the event of emergency. From an organization consisting of 10 divisions with a personnel of 340, the new organization will shortly consist of 8 divisions with a personnel of about a quarter of that number. They should supply a sufficient personnel to study and apply the results of our experience, and by neglect of that experience there would be a real danger of embarking on expenditure on wrong lines, the building of wrong types of vessels, incorrect tactics, and a faulty training of the personnel."

REORGANIZATION OF FRENCH NAVAL MANAGEMENT.

The French Navy, too, has been reorganized in its management branch, there called the naval general staff. The following quotation is from the *Moniteur de la Flotte*, March 6, 1920:

"The essential principle on which this necessary rearrangement is based is that the general staff should be concerned only with the duties of conception

"It is not at all doubtful that constant liaison is indispensable between the general staff thus restored to its real functions, which are the quest for and utilization of the correct means of preparing for and conducting naval warfare, and the services of execution charged with the putting into operation the plans elaborated by the general staff. From the existence of this liaison there arises no idea of grasping. Each individual, in the new organization, retains his place, and the clearly defined distribution of duties prohibits those deplorable jumbles or conflicts of authority so prejudicial to the efficiency of a system as a whole.

"This same care, to thus define clearly the different rôles, predominates to the same degree in the interior organization of the new service. It was not necessary that the subhead of the general staff and those of the officers placed under his orders, who are charged with studies of preparation and directions, should be at each instant diverted by the necessities of current service and by continuous relations with the executive services. This is the reason why the ministerial decision anticipates, with a view to aiding the chief of the general staff, two subchiefs, the first of which is charged with the direction of all questions relating to general service, while the second directs the plans undertaken by different bureaux conformably to the instructions given by the chief of the general staff.

"The general staff is subdivided into four bureaux, viz.:

"The first bureau (organization) is charged with the consideration of all general questions interesting the personnel (recruiting, formation, utilization, etc.) and the matériel (naval and aeronautic programs, coast defense, etc.); it includes also a section charged with the consideration of inventions.

"The second bureau (Intelligence) has for its mission that of gathering and combining all information appropriate to be utilized by the first and third bureaux.

"The third bureau (operations) is charged with all that concerns the training of naval forces, the preparatory work and the execution of the same.

"Concerning the fourth bureau (transportation, bases, supplies, communications), its very title sufficiently defines its prerogatives.

"Finally, three dependent services are attached to the bureaux of the general staff: (1) The aeronautic service (aerostation, aviation, motors); (2) the historical service recently created; (3) the hydrographic service.

"Thus conceived, based on simple, rational, and recognized underlying principles, freed of all the side issues which formerly served as a pretence to increase its importance and only resulted in hampering its operation, the new general staff of the Navy approaches much more nearly that of the Army, the logical and well-founded organization of which has withstood all tests imposed.

"Whatever may be the special conditions obtaining in the Navy, it was none the less essential in this arm of the service than in the Army that there should be a directive agency where, while an enlightened doctrine always abreast of the times is being developed, the appropriate means for immediately putting into effect this doctrine are studied and prepared in all their details."

NAVY MANAGEMENT ORGANIZATION.

What organization for the management of the Navy did we possess in 1917?

We had for the determination of naval policies and general plans: (a) A civilian Secretary of the Navy; (b) the Chief of Naval Operations; (c) the General Board.

By law, the Secretary of the Navy is the supreme authority in the Navy. The founders of the United States desired to maintain the control of the Government and of the armed forces in the hands of civilians. The heads of the military departments are civilians, and this provision is no doubt wise, provided the civilian secretaries do not use their power in a manner detrimental to the efficiency of the military services.

The necessity for coordination with other Government departments and Congress can be achieved perhaps better by a civilian than by an Army or Naval officer, but the most advantageous feature of the present law is that officers of the Army and Navy are not so closely identified with politics as they would be if the Secretaries of War and of the Navy were officers.

The impracticability of placing the entire management of military and naval affairs in the hands of civilians unaided by professional advice is so apparent that it need hardly be considered, yet the case is hardly less serious if such advice can be freely disregarded. It should be apparent from the above that the management of the Navy must be in the nature of dual management. In view of the legal responsibility the Secretary of the Navy must be able to exercise supreme authority, but practically his authority over purely naval matters, both as to operations and administration, should be exercised by the determination of guiding policies in line with the policies of the Government, the actual management of naval activities within the limits of such policies being delegated to the Chief of Naval Operations, a naval officer specially selected, appointed by the President and confirmed by the Senate.

As has been pointed out before, the Navy is an instrument available for use in the support or enforcement of our foreign policies. It should be the primary duty of the Secretary of the Navy to keep in intimate touch with all developments in international relations with a view to determining their effect on the possibility of war and to determine naval policies consistent with the existing or prospective situations.

The Secretary of the Navy should be held responsible for informing the President as to the ability of the Navy to do its part in enforcing our foreign policies in case force should be required, and for recommendations to the President as to the necessary development, and as to the state of preparation for war to be maintained by the Navy.

He should maintain close relations with other executive departments of the Government in order to establish the necessary cooperation and coordination required in the conduct of war.

There are activities under the Secretary of the Navy which are auxiliary to the naval activities and are purely staff functions, as such terms have been generally understood. These activities are legal, political, and financial (audit and cost accounting).

All of these activities, except such political activities as the Secretary may desire to direct, should be placed under the Assistant Secretary.

The relation of the Secretary of the Navy to the Navy should be much the same as a president of an industrial corporation to such corporation; that is, the consideration of the relation of the Navy to outside interests which affect its policies, and the determination of internal policies to insure its ability to accomplish the end for which it exists. The Chief of Naval Operations should be the general manager.

PROPOSED LAW OF 1915 TO CREATE A CHIEF OF NAVAL OPERATIONS.

In 1915 the necessity for a responsible naval adviser and assistant to the Secretary in managing the naval activities was recognized, but the law creating this office differed so much from the proposed law that much of the value of the original idea was lost.

The provisions of the bill as reported from the Naval Affairs Committee are indicated in the following quotation from the report to the Committee of the Whole House (63d Cong., 3d sess., Rept. No. 1344):

"The bill provides for the creation of a new office in the Navy Department to be known as the Chief of Naval Operations. This office is to be filled by an officer of the Navy on the active list not below the grade of rear admiral, and appointed for a term of four years by the President, by and with the advice and consent of the Senate. This officer, under the Secretary of the Navy, is to be held responsible for the readiness of the Navy for war and in charge of its general direction. He is to perform only such duties as shall be assigned to him by the Secretary of the Navy, and such duties shall be performed under the authority of the Secretary of the Navy, and is given the same authority regarding orders issued by him as is now given under existing law to the chiefs of bureaus of the Navy Department.

"To assist this officer in preparing general and detail plans of war 15 officers, of and above the rank of lieutenant commander of the Navy or major of the Marine Corps, are to be assigned for this exclusive duty.

"At present there exists a General Board and Naval War College, neither of which seems to be equipped for adequately performing this duty, nor have they sufficient officers under their jurisdiction to do this fundamental work for preparation of the plans of war. The demands upon the staff of the War Col-

lege and the members of the General Board for other questions involving the efficiency of the personnel and matériel of the Navy are such that they have not had time and opportunity to fully prepare in detail and perfect this work. It is the opinion of the committee that the necessity for such an office exists in the Naval Establishment.

"It will be noted that the Secretary of the Navy retains absolute control over the office and the Chief of Operations performs only such duties as are assigned by the Secretary, and the orders are issued under the authority of the Secretary of the Navy. The principal or civilian control of the Navy Department is in no way affected by the provision recommended. The tentative duties of the proposed Chief of Naval Operations and his assistants will be such that the work may be conveniently divided among nine committees or sections. The sections would probably be as follows:

"The historical section, which covers the study and analysis of past campaigns.

"The policy section, which studies the inherent interests of all nations and the policies which logically follows.

"The strategic section studies the theaters of possible wars from every aspect and the sources and means of supply for the military and naval forces.

"The tactical section studies tactics, particularly in relation to strategy; determines and endeavors to insure that the tactics of the fleet are kept constantly up to date and conform to the character of the ships and weapons that will be used.

"The logistic section studies the logistic aspects of the strategical and tactical plans involving the requirements as to supplies at the beginning of the war, during the war, and the organization of transportation, and many other things incident to the auxiliary service, including the inspection of merchant vessels.

"The organization section studies and devises plans of organization for war, in order to secure the most efficient flow of authority, the best administrative and tactical grouping of the forces, detail of personnel for command, and the orders necessary for the execution of the various plans.

"The mobilization section prepares and keeps always up to date plans for mobilizing for each of the various stations arising from conflict with possible enemies.

"The training section studies methods for the training of the naval forces and devises strategical problems and tactical exercises involving combined maneuvers of battleships, auxiliaries, submarines, aircraft, and mining vessels.

"The executive section sees that the plans devised are executed."

Before this bill was passed it was amended in such a manner as to remove many of its valuable provisions. In the original bill it was provided that the Chief of Naval Operations, under the Secretary of the Navy, is to be held responsible for readiness of the Navy for war and in charge of its general direction. The actual law reads:

"There shall be a Chief of Naval Operations, who shall be an officer on the active list of the Navy, appointed by the President, by and with the advice and consent of the Senate, from among the officers of the line of the Navy not below the grade of captain, for a period of four years, who shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet, and with the preparation and readiness of plans for its use in war: * * * To assist the Chief of Naval Operations in performing the duties of his office there shall be assigned for this exclusive duty not less than 15 officers of and above the rank of lieutenant commander of the Navy or major of the Marine Corps * * *"

It will be seen that the law failed to charge the Chief of Naval Operations with anything except the preparation and readiness of plans for the use of the fleet in war and for its operation in war. It thus removed the bureaus and shore establishments from his jurisdiction and left the responsibility for the readiness of the Navy for war entirely with the civilian secretary.

The original law also provided for 15 officers to be engaged in the exclusive duty of plan making; the law changed this to 15 officers to assist the Chief of Naval Operations in the performance of his duties and as a consequence, no planning division was formed.

There is no doubt but that the intent of the original bill was to substitute the Planning Division of the Office of Naval Operations for the General Board as the plan making body, but the law was changed and a compromise adopted with the usual result of divided responsibility for plans with its natural consequence.

PRESENT REGULATIONS GOVERNING CHIEF OF NAVAL OPERATIONS AND GENERAL BOARD COMPARED.

To indicate this divided responsibility the Navy Regulations governing the duties of the Chief of Naval Operations and the General Board, so far as they conflict, are quoted side by side:

THE CHIEF OF NAVAL OPERATIONS.

The Chief of Naval Operations shall, under the direction of the Secretary of the Navy, be charged with the operations of the fleet and with the preparation and readiness of plans for its use in war.

He shall advise the Secretary concerning the movements and operations of vessels of the Navy.

He shall advise the Secretary in regard to the military features of all new ships and as to any proposed extensive alterations of a ship which will affect her military value, and all features which affect the military value of dry docks, including their location; also, as to matters pertaining to fuel reservations and depots, the location of radio stations, reserves of ordnance and ammunition, fuel, stores, and other supplies of whatever nature, with a view to meeting effectively the demands of the fleet.

The Chief of Naval Operations' duties shall include the direction of the Naval War College, the Office of Naval Intelligence, the Office of Gunnery Exercises and Engineering Performances, the operation of the Communication Service, the operations of the aeronautic service, of mines and mining, of the naval districts, Naval Militia, and of the Coast Guard when operating with the Navy; the direction of all strategic and tactical matters, organization, maneuvers, gunnery exercises, drills and exercises, and of the training of the fleet for war; and the preparation and revision and enforcement of all drill books, signal codes and cipher codes.

He shall advise the Secretary of the Navy on all business of the department in regard to foreign relations, and all correspondence in regard to these matters shall be presented for the department's action through his office.

When designs are to be prepared for a new ship, the Chief of Naval Operations, in conjunction with the General Board, shall submit to the Secretary of the

THE GENERAL BOARD.

The General Board shall devise measures and plans for the effective preparation and maintenance of the fleet for war and shall advise the Secretary of the Navy as to the disposition and distribution of the fleet and of reinforcements of ships, officers, and men.

It shall prepare and submit to the Secretary of the Navy, plans of campaign, including cooperation with the Army.

It shall advise the Secretary of the Navy concerning the location, capacity, and protection of fuel depots and supplies of fuel, and of navy yards and naval stations; also in regard to the establishment and maintenance of reserves of ordnance and ammunition and depots of supplies; and shall advise as to the delivery of provisions and stores of every kind required by the fleet.

It shall consider and report upon naval operations, maneuvers, tactics, organization, training, and such other subjects as the Secretary of the Navy may lay before it.

It shall consider the number and types of ships proper to constitute the fleet, the number and ratings of enlisted men required to man them, and shall advise the Secretary of the Navy respecting the estimates therefor (including such increase as may be requisite) to be submitted annually to Congress.

ment, but shall not, except in special cases, be so restrictive as to prevent various arrangements being developed in order to obtain the benefit arising from the consideration of several possible solutions. These military characteristics shall be prepared by the General Board sufficiently early to permit the preliminary design referred to below to be prepared and the approximate cost determined before the estimates for the yearly building program are submitted.

The General Board was created by Executive order about 20 years ago and the duties assigned constituted it a professional board of advisers to the Secretary of the Navy. Its duties required it to make plans for war and the board as originally organized was divided into sections. The members of the board were assisted by officers assigned to duty in connection with the board.

The effect of the law creating the Chief of Naval Operations was to substitute him for the General Board as the adviser of the Secretary in certain definite activities of the fleet. The intent of the proposed law was to centralize the responsibility for plans and preparation for war and the authority to execute approved plans, in the Chief of Naval Operations. The Navy Regulations created a divided responsibility for plans and restricted the plans to be made by the Chief of Naval Operations to a point inconsistent with efficiency.

Upon the outbreak of war in April, 1917, many of the officers then assigned to the General Board were detached and ordered to sea duty, others were assigned to duty on various other boards such as the War Industries Board. Perhaps this was just as well, for the fact that the General Board had insufficient personnel permitted the assumption of most of its previous functions by the Chief of Naval Operations. The inefficiency which then existed and still exists in the organization was then, and if the present organization continues, will in the next war, be partially overcome, necessarily, by the Chief of Naval Operations assuming many of the functions assigned by regulations, to the General Board.

The reasons for existence of the General Board may be stated thus—it is desirable to have officers of age and experience pass upon the general plans and policies of the Navy in order that such plans and policies may be influenced by the conservatism of age and experience. But under the present organization the General Board is charged with initiation and preparation of plans and characteristics of ships, detail work which is essentially in the field of experts and of youth. As a consequence there has been a failure to produce the plans and a dragging in the determination of military characteristics of vessels and weapons and a tendency for the board to act as a supreme court, deciding such questions as are referred to it.

There is no intention to imply that age and experience are not required in naval councils, they are, but the present organization places these officers in a position requiring, if they carried out the regulations, the most careful study of details and minor material matters with which they are not familiar, and an amount of detail work to which they should not be subjected.

Age and experience are required in making decisions on the work of subordinates and not in performing the actual work. This is the idea which the General Board now fills as a Supreme Court, but this arrangement is not satisfactory because the decisions are not restricted to major policies and general plans; are not rendered at the proper time to be of the greatest service, and in many instances the decisions can be more correctly made by experts than by age and experience. Age and youth should work together. It is bad policy to permit any plan to reach a final stage and then have it disapproved. Fault finding is detrimental to efficiency; constant association and instruction as the work progresses will prove far more valuable.

From a comparison of the regulations governing the activities of the Chief of Naval Operations and the General Board, it will be apparent that there is divided responsibility for plans, building programs, and other matters which can not but create inefficiency. Board control is notably inefficient, due to absence of definite personal responsibility.

and distribution of ships and personnel and for plans of campaign.

How can efficiency exist with such a conflict of responsibilities?

The General Board charged with making plans can not be held responsible if such plans fail, for the board has no part in the execution of the plans. The Chief of Naval Operations can not reasonably be held responsible as he, if the regulations were followed, would be required to commence war with a distribution of forces and state of preparation planned by the General Board over which he has no control. Plans of campaign would be made by the General Board and executed by the naval forces under direction of the Chief of Naval Operations.

Further criticism of this part of the present organization appears unnecessary and an attempt will now be made to indicate the changes which are required to make this phase of management efficient.

It has been pointed out above that by law the responsibility for the management of the Navy rests unquestionably with the Secretary of the Navy. It has also been pointed out that he should have one chief naval adviser to whom, after policies and plans are approved, he should delegate authority to insure the execution of so much as relates to naval activities. This same assistant being his chief adviser should be responsible for presenting to the Secretary for approval such naval policies, plans, and decisions as may be required for the efficient accomplishment of the Navy's task.

Manifestly the Chief of Naval Operations can not by himself perform the work of drawing up plans, studying the characteristics of vessels and weapons, continuing the study of war with a view to developing strategical and tactical conceptions. He must have many assistants, specially trained, and must in many instances accept the decisions of such assistants as his own.

In reality, therefore, there should be in the Navy Department a management office, and similarly, in other place in the organization where the decisions to be made are so complex or technical that the responsible head requires expert advice such offices should exist.

For many years the members of these management groups have, in armies, been known as general staff officers. This name does not imply in English its real meaning in the language from which it was derived. Its real meaning is generalship staff officers. Even in industrial organizations the word "staff" is becoming more and more general in the designation of assistants in management.

In the Navy Department organization this management office is called the Office of Naval Operations, but by regulations its functions have been seriously curtailed by restricting its authority to manage and by many of its real duties being assigned to the General Board.

In general terms, this office should be responsible for the following:

- (a) Obtaining the necessary information upon which to base plans.
- (b) Planning what is to be done and the nature of the preparation required for the task.
- (c) Planning the characteristics of the things to be prepared.
- (d) Planning the methods of using the things prepared.
- (e) Dispatching the activities in accordance with the plans, and recording progress in the execution of plans.
- (f) Coordinating all lines of activity so that they work together to achieve a common aim.

Management must provide the administrative services, the bureaus, with standards of preparation relating to characteristics and quantities, and as responsibility for such plans must be accompanied by authority to enforce this execution, when approved by the Secretary, the administrative services must be under the authority who should be responsible for the management of the naval activities, the Chief of Naval Operations.

The first step in the reorganization of the Navy Department should, therefore, be the centralization of the function of management of all naval activities in the Chief of Naval Operations, acting under policies approved by the Secretary of the Navy.

In order to accomplish the desired end, the Chief of Naval Operations should be held responsible to the Secretary of the Navy for the preparation of all

plans for the development of the Navy, for its maintenance, and for its use; and for plans for cooperation with the War Department in joint preparation for war and for joint operations during war. He should be held responsible for the completeness and effectiveness of all such plans, and when they are approved by the Secretary of the Navy he should act as the executive of the Secretary in carrying the plans into effect, and for this purpose should be authorized to exercise such supervision over all naval activities as may be required to obtain their effective execution.

The two main functions of management are: (a) Planning; (b) supervising execution.

The Office of Naval Operations should therefore be divided into two main divisions—a planning division and an executive division.

The following description of the organization of this office indicates what it should be, not what it is. As plans should logically precede execution, the planning division will be considered first.

The first function of the management office is to obtain the information upon which to base plans. The information to be obtained should not, however, be limited only to that required for making plans. This section is identified more closely with plans than with execution, so it is incorporated into the planning division. This section is called the Intelligence Section (present Office of Naval Intelligence). Its duties are:

First. The collection, sifting, arrangement, and analysis of all information required by the naval authorities to enable them to take such measures in peace as will insure the rapid commencement and vigorous prosecution of any probable war.

Second. The dissemination of such information to its proper destinations during peace and war.

The second, third, and fourth functions of this office require that there shall be adequate provision for planning. These functions are:

(a) Planning what is to be done and the nature of the preparation required for the task.

(b) Planning the characteristics of the things to be prepared.

(c) Planning the methods of using the things prepared.

In carrying out the planning functions, it is found that a distinction must be made between the plans to carry on the current activities and the plans relating to future activities.

These planning activities are of different characters. Planning for current activities requires complete information regarding current activities: it deals entirely with existing conditions of personnel, matériel and training; it is most efficiently accomplished when there is a general plan with which its decisions may be coordinated; planning for future activities requires study and deliberation, vision, and imagination; it determines future objectives and by foresight prepares the plans to guide future development and activities toward the accomplishment of such objectives.

The current plans section is logically a part of the Executive Division. These officers are the staff of the officer charged with supervision over current activities. The planning group assigned to planning for the future is independent of the current activities and is called the Planning Division.

Upon the threat of war certain officers who as members of the War Plans Division have been engaged in preparing the plans for war should be transferred to the section engaged in making current plans and also to other sections of the Executive Division.

WAR PLANS DIVISION.

Policy, our own and that of other nations, determines the possibility and probability of war. A careful study of policy is necessary to determine with what nations we are most apt to have war. This study should be made by the State Department, confirmed by the President, and the Navy Department informed, but under the existing conditions the Navy is forced to make its own assumptions as to our foreign policy and to determine its own conclusions. It is, therefore, necessary to have a section of the War Plans Division to study policy.

When the policy branch has determined upon the nations with whom war is possible or probable, its conclusions should be given to an operating plans section. The operating plans section would then prepare a tentative war

plan, indicating the probable theaters of operations, the strength of the forces required, the most suitable types of vessels, and the general plan of operations.

This tentative plan is then referred to the administrative plans section, whose duty would be to determine whether the plan is practicable from the point of view of logistics, which means can we supply and maintain the forces required in the theater of operations indicated by the plan.

If the strategic plan is practicable, the administrative plans section then draws up the plan for the supply and maintenance of the forces required. If the plan is impractical from the point of view of logistics, it must be modified.

There is one other necessary section of the War Plans Division—the education and training section.

The education and training branch would determine the policies regarding the education and training of naval personnel; supervise the gunnery exercises and engineering competitions; prepare and issue drill books, manuals, etc.

This conclusion is tabulated below for easier reference:

WAR PLANS DIVISION.

(a) *Intelligence section.*—The collection, sifting, arrangement, analysis, and dissemination of information. Subsections: (1) International relations; (2) operational—foreign strategy, tactics, organization, etc.; (3) administrative—foreign matériel and personnel, basis, sources of supply, etc.; (4) technical research—foreign activities; (5) education and training—foreign navies, armies, civilian institutions; (6) historical.

(b) *Policy section.*—To study the inherent interests of all nations and the policies which logically follow. To study our own and other nations' policies, known or assumed, with a view to determining the nature of possible wars, and the probability of war.

(c) *Operating plans section.*—To study the nature of the operations which may be required in the event of war; to plan such operations and the numbers and types of vessels required. To study the use and employment of vessels and weapons; the tactical questions dependant upon changes of weapons; and all questions affecting battle tactics and fighting efficiency. This section would have three subsections: (1) Strategy section, (2) tactics section, (3) military characteristics section. (The military characteristics subsection would study and determine upon the military characteristics of ships and weapons.)

(d) *Administrative plans section.*—To study the capabilities of the existing means of maintenance and supply of the fleet in theaters of operations indicated by the plans prepared by the operating section: To make plans; to develop the necessary administrative requirements to meet the operating plans.

(e) *The education and training section.*—To study the requirements of and determine the means and methods of, education of naval personnel, to supervise the training of naval forces, including gunnery exercises, engineering competition, etc., to prepare and issue drill books, manuals, etc.

EXECUTIVE DIVISION.

The second function of management is supervision over execution of approved plans. This necessitates an executive division.

The activities which management supervises are of two main classes:

(a) Administrative; that is, the activities comprised in the design, production, and maintenance of the naval forces.

(b) Operational; that is, the operations of the naval forces.

Current plans apply to both classes, but execution is obtained through different agencies. The administrative activities are performed by the various shore establishments largely under the direction of the bureaus of the Navy Department. The operational activities are performed by the naval forces under the commanders in chiefs of the fleets or other naval commanders.

The executive division would be under the principal assistant of the Chief of Naval Operations, who would be called the Assistant Chief of Naval Operations. The executive division would be divided into two main sections—administrative section and operations section, and this division should have a planning section to assist in preparing current plans. The current plans sections would be directly under the Assistant Chief of Naval Operations.

The difficulties of the executive division are greatest in supervising the details of aviation, submarines, communications, and naval districts in

which the number of subordinates is large and the complexity of the activities are very great. As a consequence of this difficulty there must be in the executive division certain sections which deal only with these special matters. These sections are concerned with both administration and operations and must operate under joint control of the two main sections.

The organization of the Office of Naval Operations under the above proposed plan would appear as indicated in the diagram attached marked "A."

THE ADMINISTRATIVE ACTIVITIES.

The administrative activities are carried on by the various shore establishments under the supervision of the bureaus of the Navy Department, shore establishments performing work for more than one bureau of the Navy Department have no common superior in the Navy Department except the Secretary of the Navy.

The bureaus and offices now supervising administrative activities are:

Bureau of Construction and Repair.	} Matériel.
Bureau of Steam Engineering.	
Bureau of Ordnance.	
Bureau of Yards and Docks.	
Bureau of Supplies and Accounts.	
Bureau of Navigation.	} Personnel.
Bureau of Medicine and Surgery.	
Office of the Judge Advocate General.	
Marine Headquarters.	

There is no common superior to the bureaus in the organization of the Navy Department, except the Secretary of the Navy.

The operations of naval forces are absolutely dependent on the ability of the administrative services to provide personnel and to supply and maintain the fleet in the theater of operations. It is essential, therefore, that the administrative activities be controlled by the same plans and policies which control the operations of the naval forces. Responsibility for the success of naval operations must carry with it commensurate authority, and this authority must extend to the administrative activities as well as to the operational activities.

The Chief of Naval Operations should, therefore, have authority to exercise through the chiefs of bureaus, commandants of naval districts, and naval commanders, such supervision over all naval activities afloat and ashore as may be required to secure efficient execution of approved plans and policies.

Under the present organization the Chief of Naval Operations has no authority over the administrative activities on shore. He is directed by regulations, after any particular war plan is approved, to assign to the bureaus, boards, and offices such parts thereof, as may be needed for the intelligent carrying out of their respective duties in regard to such plans, but he has no authority to insure effective execution or coordination of the work of the bureaus.

The repair ships and supply ships which are by nature a part of the administrative agencies, operate under the Chief of Naval Operations or subordinate naval commanders, but similar activities on shore are not within his jurisdiction.

As the bureaus have no common superior except the Secretary, technical questions referring to two bureaus are frequently referred to him. Unless a special technical staff is to be assigned to the Secretary's office, he must use some other agency to make the decision for him. Most often such questions are referred to the matériel section of the Office of Naval Operations, but the answer prepared there is sent to the Secretary for signature.

This system leads the Secretary to the exercise of control over technical matters and results in taking up his time which could be better employed in study and determination of suitable naval policies.

This tendency, a Secretary to deal with details of technique and administration, is fostered by the Naval Committees of Congress who, through similar tendencies of their own, ask questions of the Secretary to which he should not even be expected to know the answer. If it is necessary for the Naval Committees to go into the details of the Navy, technical and administrative, they should confine their questions to the officers charged with the specific responsibility for such details.

Under the present organization the Chief of Naval Operations has no authority over the administrative activities on shore, the bureaus have no coordi-

nating head, except the civilian Secretary, and the same thing is true of all navy yards and stations except a few shore establishments which perform limited activities for certain particular bureaus. The repair ships and supply ships, which are by nature nothing but floating navy yards, operate under the Chief of Naval Operations or his subordinate commanders. It is not logical that he should have no control over repair and supply facilities on shore.

The consequence of such organization is that proper coordination of the bureaus is lacking. Differences constantly arise between bureaus due to the difficulty of determining which bureau has cognizance over the question at issue, and often delays in design are caused by two bureaus having cognizance over different parts of the same system. As the bureaus have no common head, except the Secretary, questions of a technical nature are constantly referred to him, which should never reach the supreme head of the Navy.

Although the bureaus have no executive control over the activities of navy yards their control over decisions relating to designs and repairs of matériel falling under their cognizance, results in many officers assigned to duty in navy yards, considering themselves representatives of one or another bureau. The present system of corps in the Navy tends to accentuate this feeling. Each officer belonging to a special corps feels that he owes loyalty to a special bureau composed of members of his corps.

The remedy for this situation is to reduce the number of bureaus to two, dividing their activities on the lines of matériel and personnel, and to make the chiefs of these two bureaus subordinates of the Chief of Naval Operations; the present bureaus becoming divisions in the new bureaus. The amalgamation of the Construction, Pay, and Civil Engineer Corps with the line of the Navy would greatly assist proper organization in attaining efficiency.

Logically, perhaps, the division of the control over the administrative activities between two bureaus is an error. It might be better centralized into one. If so centralized it would be divided into two main branches, and, therefore, the only difference would be that an additional link would be formed in the chain of command. As long as the number of subordinates with whom any one authority has to deal is not excessive, and the duties assigned to the subordinates are not conflicting or overlapping, reduction in the links of the chain of command is desirable. It is, therefore, considered advisable to have two bureaus—a bureau of personnel and a bureau of matériel.

THE BUREAU OF PERSONNEL.

The bureau of personnel would combine the duties of the present Bureaus of Navigation and Medicine and Surgery, the Office of the Judge Advocate General, and the Marine Headquarters.

The Bureau of Medicine and Surgery is placed under the chief of personnel, as its duties are primarily for the upkeep and maintenance of the personnel.

Some features of personnel have in the past been given inadequate consideration, namely—

(a) Education and training of official personnel.

(b) Study of the records of service and personal characteristics of officers with a view to their assignment to duty.

The bureau of personnel should be so organized as to insure the maximum efficiency from the personnel and should be organized in divisions approximately as indicated: (a) Officer personnel division, (b) enlisted personnel division, (c) Naval Reserve division, (d) discipline division, (e) morale division, (f) health division, (g) Marine Corps Headquarters.

THE BUREAU OF MATÉRIEL.

Nothing will facilitate cooperation and coordination of the administrative services dealing with matériel to such a great extent as amalgamation with the line. The experience obtained in the amalgamation of the Engineer Corps is proof that amalgamation can be made effective. This subject will be discussed later at greater length.

The next most important step in attaining efficiency is the combining of the present matériel bureaus under a common professional head.

A chain of command is just as necessary in the administrative services as it is in the operating forces. The necessity of a chain of command with definite responsibility and authority is becoming more and more recognized each day in industrial organization.

Navy has assigned to him once a technical staff qualified to make decisions concerning the work of the bureaus or uses, as is done at present, the Matériel Division of the Office of Naval Operations, to prepare such decisions for his signature.

The effect of this necessity for the Secretary to sign orders concerning purely naval activities is to draw his attention from the big problems of policy to the minor details of administration.

Another important feature of the bureau of matériel is that in connection with the navy yards and stations. At present there is no common superior to the commandants of navy yards, except the Secretary of the Navy.

Navy yards are primarily portions of the administrative services. In measure they are concerned with operations, but mostly in connection with their own defense.

The operations phase of their activities is performed under the direction of the commandant of the naval district, who receives his orders from the Chief of Naval Operations so far as concerns operational activities.

There is no administrative office charged with the responsibility for the efficiency of the administrative activities carried on at navy yards. As a result there are different organizations, different methods, lack of inspection, and, worst of all, little or no consideration of the relative value of the various navy yards in order that priority may be assigned in the matter of expenditures.

Instead of determining the necessities of navy-yard development from plans for the use of the fleet in war, there have been various boards appointed by the Navy Department and by Congress to study and report on locations, capacities, etc. Such studies and reports unless based on war plans are of little value. Unless the needs of the Navy are based on our plans for war the development of navy yards is most apt to be not only inefficient but extravagant.

The bureau of matériel should have a division in charge of a director of navy yards. The duties of this division would be:

(a) To standardize navy yard industrial organization, management, and methods.

(b) To determine the development of navy yards and naval bases with a view to the efficient execution of the administrative section of the War Plans.

(c) To schedule the major items of work to be undertaken at navy yards in accordance with policies and operating plans.

(d) To supervise, as may be necessary, all industrial naval activities on shore except those performed by or under the supervision of some other division of the matériel bureau or other specifically designated agency.

The present Bureaus of Construction and Repair, Steam Engineering, Ordnance, Yards and Docks, and Supplies and Accounts would retain their present designation except the change in title from bureau to division.

The above organization could be modified to advantage by the amalgamation of the Construction and Repair Division with the Steam Engineering Division but such combination can not be efficiently accomplished until the construction corps is amalgamated with the line.

The chief of matériel should have a technical staff and administrative staff to assist him in his duties. In this way the matériel administrative activities will be coordinated, duplication of activities will be avoided, and the maximum efficiency be attained.

The proposed organization is outlined in diagram B.

APPROPRIATIONS.

By its control over appropriations, limited as such appropriations oftentimes are to specific items, Congress not only limits the strength of the Navy, but governs its development both as to types of vessels and shore establishments.

The present system of appropriations is faulty for many reasons, among which are the following:

(1) The Congress and the Navy Department do not have a common conception of our foreign policies nor the possibility or probability of war. Consequently a difference of opinion exists as to the amount of insurance the Government should pay for the protection of a Navy. This common conclusion should be furnished by the executive branch of the Government or determined by a board, as suggested in the first part of this paper.

(2) The Navy Department has not in the past based its estimates on well-considered plans for the development of the Navy in accordance with war plans. Efficiency and economy can not be attained unless the estimates are based on plans. In view of the responsibility of Congress for the appropriations to maintain a Navy suitable to the needs of the country, the estimates of appropriations sent to Congress should be accompanied by a statement of the political situation upon which the Navy's plans are based and the general plan for naval development.

The plans should indicate the use to which present matériel and personnel would be put in the event of possible wars; the development required as to naval shore establishments, naval bases, and new construction; and the requirements as to naval personnel, together with reasons therefor.

The Naval Committees should so far as possible decide on the amount of the appropriations to be made without specifying in detail the items for which the money is to be expended.

This would be a budget system for the Navy. It would materially reduce the time required for the consideration of the naval appropriation bill and would give the Navy Department greater initiative in spending the money to attain the maximum efficiency with the money expended. The present system has inadequate flexibility. The estimates are made nearly a year before the funds are available. A year more passes before new funds are available. This delay, caused by Congress fixing in detail the amount to be spent, often causes delay in making desirable modifications and often restricts certain desirable activities for which appropriations have not been adequate. At the same time money saved under a different appropriation can not be used and is turned back to the Treasury. This inflexibility also causes extravagance in case the money appropriated for one item is greater than required, for this money is very apt to be unprofitably spent if it can not be used for more pressing needs.

If a budget system for the Navy can not be provided, the next best plan is to limit the number of items under which appropriations are made to the smallest possible number and to allow an adjustment in these appropriations without action of Congress so long—

(a) As the total appropriation is not exceeded.

(b) As long as the excess by adjustment does not exceed 15 per cent of the total appropriation for any particular item.

Under the present regulations "Each bureau shall estimate for and defray from its own funds the cost necessary to carry out its duties," etc.

These estimates made by the bureaus are not coordinated except by the office of the Assistant Secretary and the Secretary. These estimates are based on the bureaus' ideas of what its expenses will be and are not based on approved plans for the development of the Navy as a whole.

All estimates of appropriations from whatever sources within the Navy should be based on approved plans for the development and use of the Navy. Such plans should indicate the priority of the activities comprising the plans, and all estimates of appropriations should be coordinated by the Chief of Naval Operations and returned to the bureaus for comment before being submitted to the Secretary.

If the bureaus are reduced to two, as suggested above, the coordination of the various divisions of the bureau would be accomplished by the chief of bureau.

The comments of the Chief of Naval Operations and of the chiefs of bureaus should accompany the estimates when finally presented to Congress.

CONSTITUTION OF THE GENERAL BOARD.

As has been pointed out above, the General Board at present is composed of officers of age and experience. Their duties as stated by regulations require them to initiate many plans. This function is no longer filled, yet the regulations have not been changed. As a consequence there is continual friction between the General Board and the Plans Division of Operations due to the overlapping and conflicting duties assigned to the General Board and Chief of Naval Operations.

It has been also pointed out that age and experience are necessary to pass on the work of youth, but that in order to attain the best results age and experience should be combined with youth in the preparation of plans, in order that

the value of their conservatism may be obtained during the formulation of plans and not critically applied to completed plans.

Another objection to the present organization of the General Board is that the majority of the board is not identified with the execution of the plan after it is passed upon, consequently responsibility for the success of the plan is divided. Again, the General Board is directly under the Secretary of the Navy, and the opinions expressed by the board are transmitted to the Secretary without the comments of the Chief of Naval Operations.

Conditions of war exposed the ineffectiveness of this organization. Necessity demanded the execution of plans without waiting for them to be referred to the General Board. Most of the members of the General Board were ordered to sea or to duty in connection with various other boards, such as the War Industries Board.

The solution of the problem appears to be as follows:

Place a rear admiral or captain in charge of each of the major sections of the War Plans Division and constitute the General Board of the following officers:

- Assistant Chief of Naval Operations.
- Director of War Plans Division.
- Chief of Intelligence Section.
- Chief of Operating Plans Section.
- Chief of Administrative Plans Section.
- Chief of Education and Training Section.
- Chief of Matériel.
- Chief of Personnel.

This board's duties would be to express an opinion on such major questions as may be referred to it by the Chief of Naval Operations.

With this organization, the General Board would be constituted of officers in close touch with current activities and war plans; each one would be thoroughly familiar with the work and ideas of a particular section or branch. This organization would form a proper advisory committee each member of which has certain definite responsibilities in connection with the policy or plan under consideration.

EDUCATION AND TRAINING OF NAVAL OFFICERS.

In a speech on education, President Hadley, of Yale, made the following statement:

"In the old-fashioned view of life, each human being went through a period of preparation, which was followed by a distinct and separate period of life work. When such a person left school or college, he was thought to have finished his education and to have begun serious business. I think we have all come to see how artificial was this distinction and how evil were many of the results which followed from it. We now understand that well-developed men and women should allow their education to cease only when their life ceases. We no longer attempt to separate our years into two periods, one of training and the other of work. We hold, rather, that work should begin in the period of training and that training should continue throughout the period of active work."

The Navy has unfortunately in the past clung more closely to the old-fashioned view of life than to the modern one. Instruction of line officers, other than a few matériel specialists, has been confined to the Naval Academy course of preparation, and in some instances officers have attended the Naval War College.

The assignment to instruction at the War College has often been made because officers happened to be available rather than because of an officer's special qualification for such additional education and training.

As a rule, attendance at the War College has been postponed too long. Also, because of the difference in age, rank, and experience of the members of each class, it is necessary to begin with the elementary principles.

The reasons for instruction of commissioned officers are set forth in the following quotation from the report of a recent board convened to study and report on the necessity for additional instruction and training of line officers:

REASONS FOR INSTRUCTION OF COMMISSIONED OFFICERS.

"The present advanced state of civilization includes great development in every branch of the arts, industry, and science, so great that keeping abreast of developments in one branch of art, industry, or science is practically a

life work. Development is proceeding at an ever-accelerating rate, and the complication of activities is increasing continuously.

"The requirements of the naval profession have an even broader scope than indicated above. The naval officer must be prepared to combine all these technical elements into an organized and unified force in such a way as to have a maximum effect when exerted against an enemy. The Navy as a whole must be operated as a unit, which required high proficiency in such matters as organization, administration, and management.

"The intimate dependence of efficiency of matériel upon efficiency of personnel imposes a further major requirement upon the officer. He should be an expert in the art of leading men, which necessitates a high degree of knowledge of the underlying principles if effective and united action is to be obtained in the face of the difficulties confronting naval forces in war.

"The opinion has been generally held in the Navy that the only way to learn things is to do them. This opinion has had much truth and fact to justify it, but this idea has been undergoing a marked transformation in recent years. It is becoming realized more and more that, although one can not learn to do a thing by merely being told how it is done, such previous knowledge greatly facilitates learning how to do it when practical work is started. This knowledge affords its possessor a strong foundation, barren and useless in itself, but a firm basis upon which to build the structure of practical experience. Book learning, abstract knowledge, is like fertilizer; it does not of itself produce anything, but it stimulates growth and advance when the live seed, practical experience, is instilled into the soil.

PERIODIC INSTRUCTION INDISPENSABLE TO EFFICIENCY.

"The naval profession is the most varied in the world; leadership, matériel, skill, judgment, operations—all are needed. The term 'officer' is synonymous with 'leader,' which establishes the primary reason for existence of officers. In the earlier years of an officer's career he is concerned with the exercise of his profession in employments of limited scope. As he advances in rank and experience the performance of details becomes less important. In the higher grades 'operations' becomes of paramount importance, while material and its manipulations, though essential, are viewed as the means to the end and not, as earlier, the end itself.

"The naval officer requires a working knowledge of many branches of human endeavor. At present he is 'educated' only in preparation for the lowest commissioned grade. In order to be of most benefit to the service and the country, in these days, he must not only be expected to interest himself of his own volition in the progress of matters which have a bearing on naval warfare, but the time must be set aside and the opportunity must be made for him to acquire up-to-date knowledge along professional lines. It is also the case that the education preparatory to initial commission does not, nor can it be expected to, prepare the naval officer thoroughly for other than the duties he will be called upon to perform as a junior officer. It is an introduction to the profession but is not, and can not be, complete in itself, even were still more time allotted to instruction at this initial stage.

"Not only does progress in knowledge and in other matters affecting the naval profession take place, but even in the extreme case in which those matters might conceivably be considered stationery, the Government should, at recurring periods in a career of 40 years' commissioned service, provide the time and opportunity for officers to be instructed along the lines with which their increasing rank and consequent responsibility call them to be thoroughly familiar. The extreme case appears to be: Instruction for 4 years at the Naval Academy and then none for 40 years of commissioned service. The board considers recurring instruction periods (later defined and specified) as indispensable to efficiency.

"Successive periods of instruction and training occurring at intervals between periods of practical experience is the best means to develop judgment, which, in positions of great responsibility, is an attribute which is hardly of inferior importance to the ability to reason to a logical conclusion.

"The length of time and the point in the service at which the instruction periods should take place are found to be:

"Naval Academy, four years, preliminary and preparatory to commission, in readiness for first phase of usefulness; i. e., inferior subordinate.

"General-line course, one year, between 5 and 10 years after commissioning (preferably after five years' general service), in readiness for second phase of usefulness; i. e., superior subordinate.

"Junior War College course, one year, between tenth and twentieth years of commissioned service (preferably while in the grade of lieutenant commander), in readiness for third phase of usefulness; i. e., commanding officer.

"Senior War College course, one year, after twentieth year of commissioned service (preferably while in the grade of captain), in readiness for final phase of career; i. e., flag officer.

The necessity for instruction at recurring periods is recognized in most military services. The following quotations from the statement of the first lord of the Admiralty indicates:

"There remains to be considered the higher education of the officers of His Majesty's service. Before the war this education was almost entirely professional and technical. Officers in their sublieutenant's examination were required to pass examinations in various technical subjects. Later they specialized in gunnery, torpedo, or navigation and went to special schools for this purpose, where their higher technical education was completed.

"The whole of this question of higher education has been carefully reviewed in the light of war experience, and it appears that though the former system gave a type of officer of high professional attainments, yet in many respects it has left considerable room for improvement, the nature of the courses being rather too strictly professional and technical. Consequently, in certain respects the naval officer was at a disadvantage as compared with his contemporaries in other walks of life, who had had the advantage of a more general education and had come into contact with all shades of thought up to a comparatively late age.

"The effect of the war was, in the case of the younger officers, seriously to interfere with their actual general education at the Osborne and Dartmouth Colleges prior to coming to sea, nor was it possible, in the case of a large number of officers, to arrange for the special courses prior to their becoming lieutenants. At the close of the war, therefore, these officers found themselves at a serious disadvantage; first, from the interruption of their general education, and, secondly, from the fact that they had been unable as sublieutenants to pass through the courses at Greenwich College and the various naval schools.

"To remedy this state of affairs, the authorities at Cambridge University were approached. The university authorities showed the greatest sympathy and gave us the most generous assistance, and as a result all those officers who had their studies interrupted by the war are being given a special course at Cambridge University. This course is designed to broaden the outlook on life and to bring officers into contact at an impressionable age with university thought and university ideas. It will not be until 1922 that all officers who had their studies interrupted will have been through Cambridge; meanwhile, we are convinced of the enormous benefit which has already resulted to those officers who have been through the course. We are grateful in the extreme for the help which has been given; it has shown the value to the Navy of this contact with the university, and it would be a profound mistake if this contact ceased so soon as the officers concerned have passed through their courses.

"It is in contemplation to frame a scheme subject to the concurrence of the university authorities, under which in the future a university course will be an integral part of training for about 25 per cent of the sublieutenants in each year. It is considered that about this percentage will gain real and lasting benefit from the course.

"The full details of this scheme of training will be worked out during the coming months. Broadly, the proposals are that all sublieutenants shall undergo, in addition to the technical courses of gunnery, torpedo, pilotage, and navigation, a special course of mathematics and physics, and an elementary war course at Greenwich. In this elementary war course, to which great importance is attached, sublieutenants will be given an introduction to strategy, tactics, and the study of war. After Greenwich 25 per cent will be selected for the special university course, the remainder passing to seagoing ships prior to promotion to lieutenant.

"In the interests of the future of the service, great importance attaches to the selection and training of officers for the war staff. A body of officers is required who have made special study of the lessons of history and of the war, and who are capable of sifting and applying the mass of evidence available.

"Reduction of the navy to the utmost limit in ships and material makes it the more important that the efficiency of the war staff shall be of the highest order.

and that during the forthcoming years there shall be passed through the staff college a number of young officers whose training in staff work will insure a common doctrine on strategical and tactical questions, the right application of the lessons of the past, and the ability to foresee the requirements of the future.

"With this end in view a naval staff college has been set up at Greenwich. The first course commenced in June last and will be completed in June of the present year. In the next course, commencing in September, the number of officers will be increased and will, it is hoped, include representatives from the dominions.

"We must aim at training at least 40 naval officers a year, so that in 10 years 400 will have qualified for the naval staff and will be distributed through the various grades of the naval service. It is further highly desirable that the number of army, air force, and dominion representatives attending the naval staff college should be increased to insure close cooperation between the services and to build up the naval thought of the Empire on the common doctrine on which the navy must prepare itself. To carry this out it will be necessary to consider methods of increasing the staff college accommodation; this matter is receiving serious attention, and it is hoped that a decision will be reached in time to enable the staff course in 1921 to be of the dimensions proposed; the matter will be referred to in the naval estimates of 1921-22.

"For the benefit of senior officers who are unable to take advantage of the staff course, a war college has been opened at Greenwich and a special staff appointed for instructional purposes. Strategy, tactics, and command are the principal subjects dealt with. The course at the war college will be preceded by technical courses at Portsmouth dealing with the use of weapons and progress in weapon technique. The war college at Greenwich opened on March 1."

It will be seen from the above that the British Navy has adopted a system of education and training approximating very closely that recommended for the United States Navy by a board of United States naval officers, which report was made without knowledge of the British plan.

The necessity to develop trained officers for duty on the staffs of admirals at sea and in the management branch of the Navy should be apparent. This necessity is now recognized throughout the world. It is a common saying abroad that "the French general staff saved France."

AMALGAMATION OF CORPS.

At present there are several corps in the Navy which in order to increase cooperation and coordination should be amalgamated with the line. These are: The Construction Corps, the Pay Corps, the Civil Engineer Corps.

These corps are directly responsible for the efficiency of many activities upon which the ability of the fleet to carry out its mission, directly depends. It is essential that there be the heartiest and closest cooperation in all such activities.

For years there has been more or less discord among the officers of the Navy due to the existence of special corps. The most serious discord was due to the Engineer Corps, because the Engineer Corps and line were thrown together continually on board ship.

The amalgamation of the Engineer Corps and the line was a great step in advance. It was predicted that failure in engineering would result, but the contrary has been the case, engineering has really improved and the mechanical ability of those officers assigned to turrets, etc., has added to the entire efficiency of the Navy.

It is mostly in the shore establishments and in the Navy Department that the friction still existing between the line and the so-called staff corps, is found.

That it exists and is detrimental to efficiency is the conviction of many officers who have been on duty in the department and at navy yards. As long as special corps exist there will be corps loyalty which, because it puts the good of a few ahead of the good of the many, is detrimental to that feeling of unity which must inspire all naval officers if the maximum of efficiency is to be obtained.

The Construction Corps is composed almost entirely of honor graduates of the Naval Academy. These officers have had to decide upon their careers at the early age of 22-24 years with the result that some of these officers would probably have been better line officers than constructors, and visa versa some who because of the small number of vacancies in the Construction Corps have been forced to remain in the line would have made better constructors than line officers.

The Pay Corps and Civil Engineer Corps are composed largely of officers who entered the Navy from civil life. They have thus lost the four years' training at Annapolis, which is the foundation of naval training. If all of these officers were graduates of the Naval Academy the feeling of cooperation would be much stronger than it is at present.

The fact that there are three material bureaus of the Navy officered practically entirely by officers of three corps and two such bureaus officered by line officers has been, in my opinion, the principal reason why there has not been a combination of the matériel bureaus into one bureau of matériel.

Amalgamation has been discussed many times and has been opposed both by line and corps officers. Such opposition on the part of the line has been due in a large part to the feeling that staff officers desired to qualify for command. Such qualification is not necessary. We have confused ideas about line and staff. A chain of command is just as necessary in the administrative activities as it is in operations. The true distinction between line and staff is one of function. Those engaged in the production of results are line, the staff is auxiliary. Since the administrative services are not engaged in the actual fighting they have in the past been considered as staff, but such a distinction is more theoretical than real. The pure staff function is research, planning, analysis, specialized instruction, etc.

The so-called staff corps are now called by line titles and complete amalgamation is only a short step. With such amalgamation certain conditions must be recognized:

- (a) That all officers must be specialists in one or more types of naval activities.
- (b) That command of a ship is a type of naval activity.
- (c) That assignment to duty must be determined by an officer's qualification for the duty.
- (d) That when practicable, officers should be assigned to the type of duty they prefer.
- (e) That it is not necessary for all officers to be specialists in command of ships.

THE GENERAL STAFF.

The duties usually assigned to the General Staff must be accomplished whether there is a General Staff or not, if efficiency is to be attained. In order to indicate the officers who are qualified by experience and training to perform this duty it is necessary that they be specially designated. In order, however, to avoid the formation of a new corps in the Navy it is considered desirable to avoid the formation of a general staff.

Certain positions, however, require personnel specially trained in the duties normally assigned to the general staff, and it should be recognized that no officer should be assigned to these duties until he has the training, education, and experience necessary to qualify him for the work.

When the corps are amalgamated each officer should be designated by his qualifications and assigned to duty in accordance with such qualifications. Those who possess the necessary qualifications for duties normally assigned to general staff officers should be designated: "Qualified for war staff duties." This qualification should be determined by a board of rear admirals or captains already so qualified, by an examination, officer's records, and recommendations of commanding officers.

A general-line course and junior war college course as previously recommended would, in their curriculums, provide for the educational features necessary for qualification as war staff officers.

This necessity for special training of war staff officers has been recognized in the British Navy as a result of the war, as shown by the quotation under the heading: "Education and training of naval officers."

SCIENTIFIC RESEARCH AND TECHNICAL INITIATIVE.

The officers of the United States Navy were the first to use torpedoes, submarines, sea planes, airplane carriers, attack mines; the first to develop electric propulsion for naval vessels; the first to conceive the all big-gun ship and the torpedo plane, but in all these, except the electric propulsion and the sea-plane and mines we have been outdistanced by foreign navies.

As a Nation we have the ability to conceive new devices on a larger scale than any other nation, but we lack the initiative to progress with the development of our ideas. Technical initiative is vital to success in war, and our Navy must be provided with greater means of scientific research in order that all developments

of a scientific nature may be examined to determine their availability for naval use.

The officers detailed for this work should operate directly under the Chief of Matériel and in close liaison with the military characteristics subsection of the Planning Division.

The following quotation from the statement of the First Lord to Parliament indicates the development of this idea in the British Navy:

"The organization of scientific research within the Navy which has been set up so as to insure that the latest developments are understood by the naval service and that development both in types of vessels and in weapons will keep pace with scientific progress is given in Appendix II to this memorandum. Under the controller of the Navy there has been set up a department of scientific research and experiment. As the scientific adviser of the controller and in charge of this department there has been appointed a director of scientific research who is responsible for the general direction and organization of research work for naval purposes, keeping the Navy in touch with outside scientific establishments and insuring that the work at the various naval experimental establishments dealing with mining, sound signaling, and navigational appliances proceeds with full cognizance of scientific progress and methods. He will arrange for additional scientific assistance being given to these establishments as requisite. Further, the director of scientific research, by keeping in close association with the naval staff, will insure that we are kept fully aware of the possible practical application of scientific progress in relation to naval needs, thus enabling us to formulate requirements as to types and weapons with a knowledge of the latest scientific possibilities and to make ourselves better equipped for dealing with the vital problems of naval material development.

"Consultations with outside institutions will be resorted to so as to gain the benefit of their research and experiments, but there are some problems which it will not be possible to deal with in this manner owing to their secret or to their special naval aspect. Special naval problems will be dealt with by the naval establishments—gunnery, torpedo, mining, signaling, and antisubmarine—but for research work and secret development it is essential that the naval service should have a small central establishment of its own independent of the special experimental establishments. Such an establishment was formed during the war at Shandon, and has performed and is performing good service. But Shandon is expensive to the country in its upkeep, and suffers from disadvantage in position, both in regard to its distance from the naval ports and from the admiralty, with the consequent liability that owing to insufficient cooperation and contact with naval thought the research work may be conducted without the necessary consideration for practical requirements.

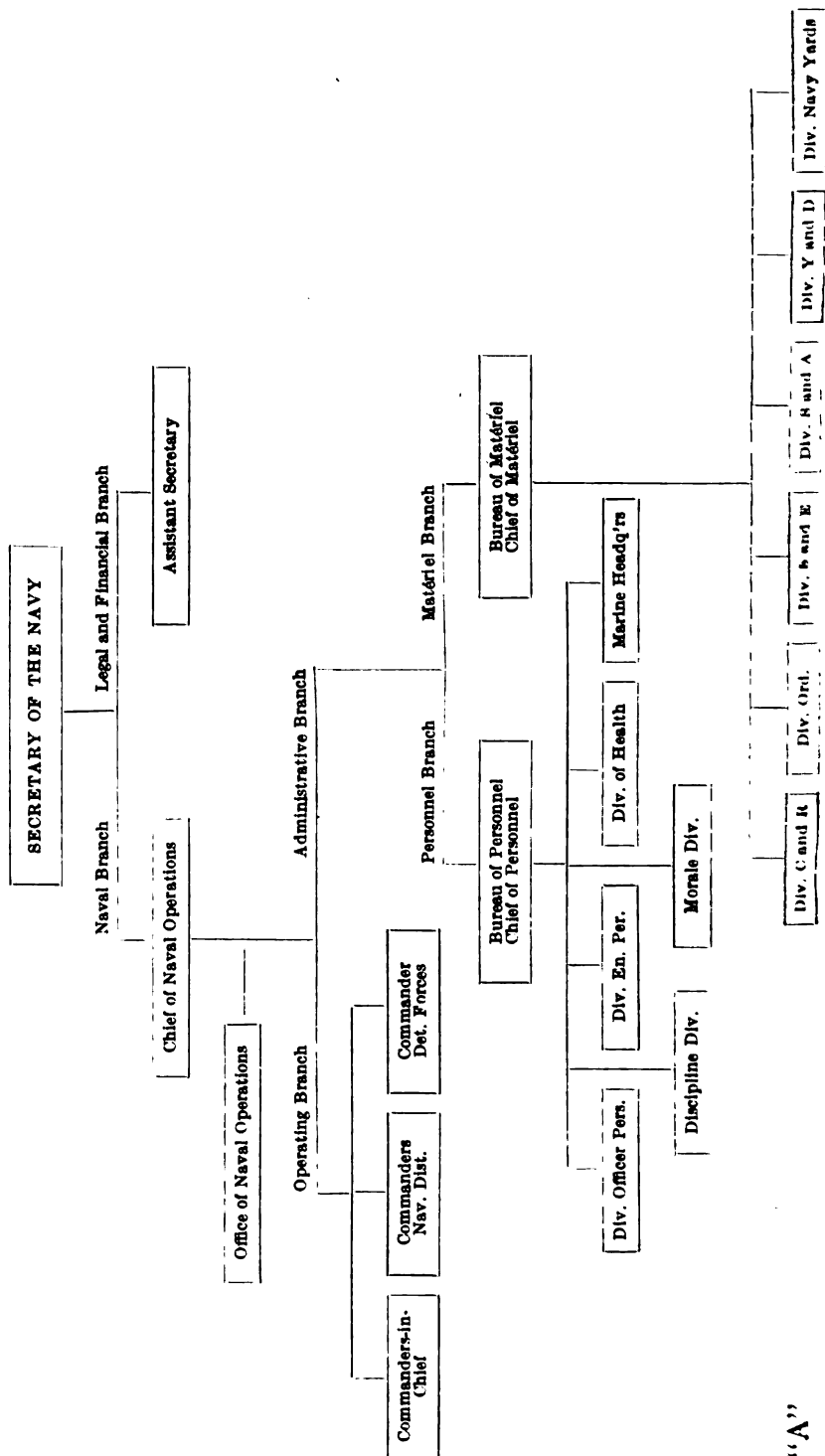
"It has been decided, therefore, to close Shandon as soon as suitable accommodation can be provided elsewhere. Such work at Shandon as requires sea environment will be removed to existing naval establishments. All pure research work now being carried out at Shandon will eventually be transferred to a small naval institute adjoining the national physical laboratory at Teddington. This institute, under the director of scientific research, will be entirely controlled by the admiralty, but its close association with the national physical laboratory will offer exceptional facilities for cooperation, and the scientific staff of the institute will have the advantage of personal acquaintance with the work being carried out in the laboratory. It is hoped to have this establishment ready at the end of the present year; meanwhile Shandon, on a reduced scale, is being kept going until the establishment at Teddington is ready. To stop pure research work altogether at this moment would be a retrograde step, and might conceivably have a serious effect ultimately on development of types of ships and weapons and on economy generally."

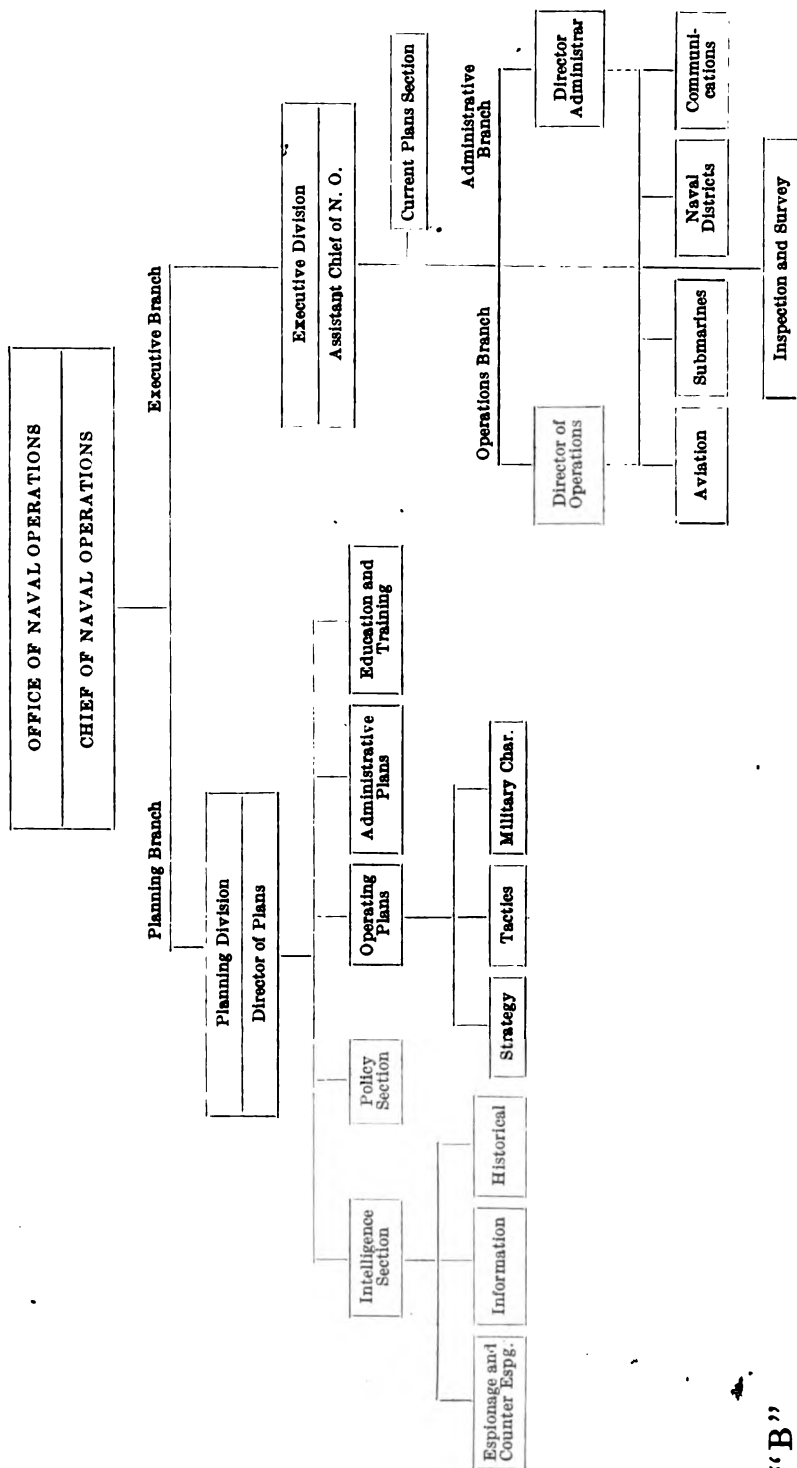
REORGANIZATION NECESSARY.

It is believed that the foregoing discussion indicates that reorganization of the Navy, especially reorganization of the management function, is absolutely necessary if efficiency is to be obtained.

Under the existing conditions economy is vital, but neither the maximum efficiency nor economy can be obtained with the divided responsibility for plans and execution which exists to-day.

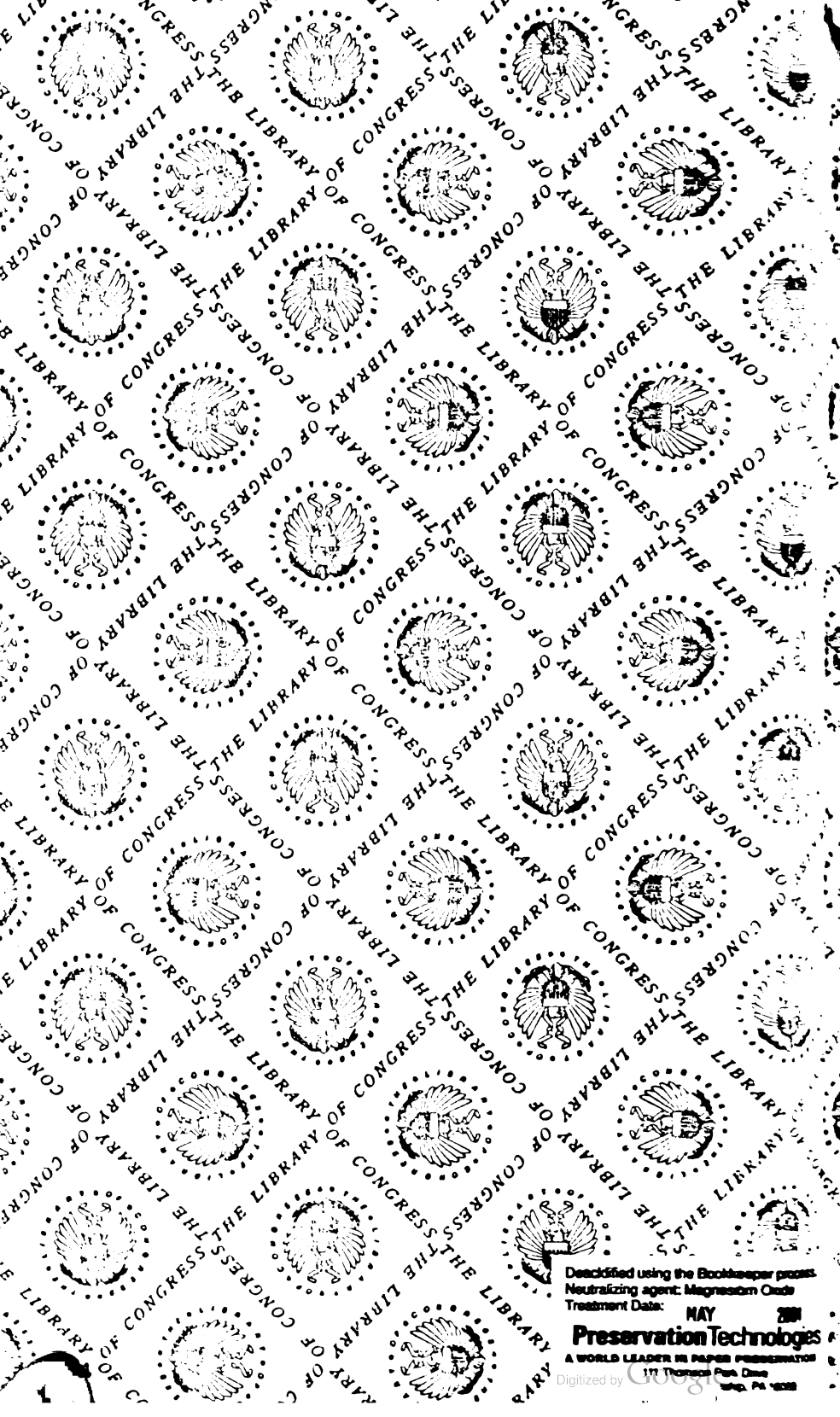
The Navy Department has grown into its present form. Now, when the experience of war is fresh in the minds of all, is the time to place it on a firm basis of businesslike organization, to recognize its deficiencies, and to prepare it for future emergencies.





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